

*To Bert, my great life companion,
and to our lovely daughter Lotte*

UMI Number: U584557

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U584557

Published by ProQuest LLC 2013. Copyright in the Dissertation held by the Author.
Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against
unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

Acknowledgements

I wish to express my gratitude to my supervisor, Niall Sharples, who encouraged me and guided me patiently and expertly throughout the whole process. I also thank the School of History and Archaeology for allowing me a grant that made this Phd possible.

I would like to thank my parents, Danny Vandemoortele and Monique De Ryck, for their continual moral support and for their technical assistance. My special acknowledgements go to Koen Hendrickx for his fundamental advice and assistance, especially in the final phase, and to Anne Talboom, Nico Ivens and many others for prereading some chapters.

My heartfelt thanks go my partner, Bert Mouton, who encouraged me to start the phd, even though it has taken up our lives for almost seven years. He was my advisor when writing, mental coach to get me back on my feet, and domestic help to give me time off. In that sense we made this Phd together.

Summary

This dissertation examined the significance of Late La Tène *oppida* in the contemporary society. The study questioned the validity of five common assumptions on *oppida*. First, the highly debated interpretation of *oppida* as urban settlements. Second, the related assumption that *oppida* had economic and political central functions over the region. Third, the assumed dependence of the *oppida* on the Mediterranean. Fourth, the common view that Late La Tène society was hierarchical and led by an hereditary elite. Finally, it questioned the fact that the *oppidum* is seen as a static, fixed concept. I intended to deconstruct these assumptions, and to find an alternative interpretation of the *oppidum* that valued the specific character of society and settlement.

To achieve this aim, I analysed three *oppida* and focussed on evidence for urban features, central functions, contacts with the Mediterranean and social hierarchy. The selected sites are different in form and geographical location in order to examine the heterogeneity of the concept *oppidum*.

The site analyses revealed that *oppida* were not urban settlements in the sense of the idealised Mediterranean city and that they did not exercise central place functions over the region. An *oppidum* was basically the focal point for the region. It was the central meeting place and the common arena. The *oppidum* had the potential to develop as regional market place and fair ground, and as major sacred place for communal ritual activities. The society was not led by an aristocratic elite class. The *oppidum* was not a centre that controlled the region. It was a place where the region controlled itself. It was an integral part of the dynamic and continuous settlement evolution in the Iron Age.

List of figures

Chapter 1: What is an *oppidum*? Reviewing the history, definition and interpretation of the archaeological concept ‘*oppidum*’.

- Figure 1a: The Bohemian *oppida* (Waldhauser 1984: 265, fig. 10).
Figure 1b: Some Bohemian *castella* (from Waldhauser 1984: 266, fig. 20)
Figure 2a: Lay-out of the *oppidum* Variscourt/Condé-sur-Suippe (Fichtl 2005: 91)
Figure 2b: Lay-out of the orthogonal roofed ditch system at the *oppidum* Villeneuve-Saint-Germain (Fichtl 2005: 93)
Figure 3: Chronology of the late La Tène period (Kaenel 2006: 26, fig. 7)
Figure 4: Chronology of the major *oppida* (Fichtl 2005: 37)
Figure 5a: The Heuneburg in late 6th century BC (Collis 1984: 42: fig. 4-3)
Figure 5b: The southeastern part of the Heuneburg. (Collis 1984: 4, fig. 1-3)
Figure 6: Distribution of the *oppida* (Fichtl 2005: 22-23).
Figure 7: The *oppidum* of La Mesa da Miranda, Spain (Álavarez-Sanchís 2005, fig. 2)

Chapter 2: Whence the current interpretations on *oppida*? Analysing the account of Caesar, the concepts urbanism, central place and social hierarchy.

- Table 1: List of *oppida* named by Caesar in ‘De Bello Gallico’ (Fichtl 2005: 13)
Figure 1: The traditional central place theory (Renfrew and Bahn 2004: 183)
Figure 2: The central place models of Smith (1976: 316).
Figure 3: Street plan in Veii, Italy (Owens 1991: 97, fig. 33)
Figure 4: Early Athens in the ninth-eight century BC (Owens 1991: 13, fig. 1).
Figure 5a: Hierarchical society (Hill 2006: 170, fig. 1).
Figure 5b: Non-hierarchical societies (Hill 2006: 173: fig. 2).

Chapter 3: Introduction to the case-studies.

- Figure 1: Location of the *oppida* under study (Plan of Kaenel 2006: 21, fig. 2)
Table 1: Main formal differences between the selected sites.

Chapter 4: The *oppidum* of Manching, Germany

- Figure 1: Aerial photograph of 1955 (Sievers 2003: 14, fig. 5).
- Figure 2: Plan of Manching in 1603 called *Mappa über das Amt Reichertzhofen* (Sievers 2003: 9, fig. 1).
- Figure 3: Excavation areas 1955-2002 (Sievers 2003: 18, fig. 14).
- Figure 4: Geology of the region (Krämer and Schubert 1970: p 18, fig. 1).
- Figure 5: The Altenfeld excavation area: postholes, ditches and water sources (Sievers 2003: 51 fig. 48).
- Figure 6: Iron smelt places near Manching (Schäffer 2002: 227, fig. 8).
- Figure 7: The vicinity of Manching with long-distance routes, buildings with possible cult function and *Viereckschanzen* (Sievers 2003: 20, fig. 16).
- Figure 8: Plan of the *oppidum*, the sanctuary of Zuchering, the *Viereckschanzen* and La Tène B/C burial places.
- Figure 9a: General floor plan of the sanctuary at Zuchering (Schubert 1995: 46, fig. 13a).
- Figure 9b: Floor plan of the sanctuary at Zuchering phase I (Schubert 1995: 148, fig. 14a).
- Figure 9c: Floor plan of the sanctuary at Zuchering phase II (Schubert 1995: 153, fig. 16a).
- Figure 10: The *Viereckschanze* south of Manching (Krämer and Schubert 1970: 45, fig. 7).
- Figure 11: Fortified settlements and open settlements in the region (Schäfer 2002: 220, fig. 2).
- Figure 12: Location of the La Tène B/C sanctuaries, cult tree, cemeteries and burial.
- Figure 13a: Cemetery Steinbichel (From Krämer 1985: 72, fig. 11).
- Figure 13b: Cremation burial in the *oppidum* area (Krämer 1985: 98, fig. 14).
- Table 1: Chronology of sanctuaries A-E based on Sievers 1991: 149 and Sievers 2003: 30-34.
- Figure 14a: Distribution of sapropelite rings in La Tène C1 (Stöckli 1974: fig. 6).
- Figure 14b: Distribution of La Tène C1 *fibulae* (Stöckli 1974: fig. 3).
- Figure 15a: Distribution of La Tène C1 *fibulae* (Gebhard 1991: fig. 43).
- Figure 15b: Distribution of La Tène C2 *fibulae* (Gebhard 1991: fig. 44).
- Figure 15c: Distribution of La Tène D1a *fibulae* (Gebhard 1991: fig. 45).
- Figure 15d: Distribution of La Tène D1b *fibulae* (Gebhard 1991: fig. 46).
- Figure 16: Settlement phases in the central area (Gebhard 1989: suppl. 1).
- Figure 17a: The earliest and early phase in the north area (Maier et al. 1992: suppl. 5).
- Figure 17b: The middle phase in the north area (Maier et al. 1992: suppl. 6).
- Figure 17c: The latest phase in the north area (Maier et al. 1992: suppl. 6).
- Figure 18: The course and trenches of ramparts (Van Endert 1987: suppl. 13).

Figure 19: Situation before and after the diversion of waterways (Peter 2002: 211, fig. 2).

Figure 20: The main settlement area, land suitable for settlement and land not suitable for settlement (Krämer and Schubert 1970: suppl. 5).

Figure 21: Reconstruction of the two phases of the ramparts (Krämer and Schubert 1970: p 35, fig 4).

Figure 22a: East gate phase 1 (Van Endert 1987: fig. 1).

Figure 22b: East gate phase 2 (Van Endert 1987: fig. 2).

Figure 22c: East gate phase 3 (Van Endert 1987: fig. 3).

Figure 23a: Hypothetical reconstruction of the east gate phase 1 (Van Endert 1987: fig. 20).

Figure 23b: Hypothetical reconstruction of the east gate phase 2 (Van Endert 1987: fig. 21).

Figure 24: Silenus head near the east gate (Van Endert 1991: table 44).

Table 2: Chronology of the east gate (from Van Endert 1987: 60-67).

Figure 25: Reconstruction of the street system: streets, stone pavement (from Sievers 2003: 38, fig. 34).

Figure 26: Building complexes in the north part of the south excavation area (Schubert 1994: suppl. 21).

Figure 27: The 1999-2000 excavation area (Sievers 2003: 104, fig. 110).

Figure 28: Reconstruction of the stone pavement (Sievers 2003: 113, fig. 115).

Figure 29: The measuring rod of Manching (Sievers 2003: 84, fig. 90)

Figure 30: The construction schemes for rectangular buildings in Manching (Schubert 1994: suppl. 4).

Figure 31: The orientation of buildings of Manching (Schubert 1995: 184, fig. 36).

Figure 32: Plans of the sanctuaries at Manching.

Table 3: Dimensions of buildings and open spaces at the sanctuaries of Manching.

Figure 33: Assumed zoning based on building types (based on descriptions of authors, referred to on previous pages).

Figure 34a: Distribution of smith's tools in central area (Jacobi 1974: suppl. 1).

Figure 34b: Distribution of iron slag, *smeltztiegel* and *Düsenziegel* in the central area (Jacobi 1974: suppl. 2).

Table 4: Share of animal species in the total amount of animal bones (based on Boessneck et al. 1971: 6-7).

Figure 35: Bronze punch for the production of iron coin dies (Sievers 2003 82, fig. 87).

Figure 36: Coin moulds (Sievers 2003: 81, fig. 86).

- Figure 37: The amount of iron slag from the excavated areas in Manching and in Berching-Pollanten (Schäfer 2002: 229, fig. 9).
- Figure 38: Glass lump and arm ring (Sievers 2003: 73 fig. 77).
- Figure 39: Lead weights (Sievers 2003: 84 fig 89).
- Figure 40: Drawing of the fairs at Bibracte in the 19th century (Goudineau and Peyre 1993: 132).
- Figure 41: Distribution of the Schönaich I/II coin type (Sievers et al. 1998: 651: fig. 11).
- Figure 42: Distribution of iron bars (Jacobi 1974: 251: fig. 57).
- Figure 43: Dog head spouts (Sievers 2003: 91, fig. 100).
- Figure 44: Linch pins with owl heads (Sievers 2003: 120 fig. 123).
- Figure 45: Distribution of the *murus gallicus* type of ramparts (Van Endert 1987: 85, fig. 18.1).
- Figure 46: Distribution of the *Pfostenschlitz* type of ramparts (Van Endert 1987: 85, fig. 18.2).
- Figure 47: Distribution of *Knebel* snaffles (Jacobi 1974: 191, fig. 52).
- Figure 48: Distribution of omega-shaped snaffles (Jacobi 1974: 187, fig. 49).
- Figure 49: Distribution of specific types of foreign ornaments (Krämer 1961: 313, fig. 2).
- Table 5: Total amount of animal bones in 1971 and the estimated amount of butchered animals per year (according to Boessneck et al. 1971: 11-12).
- Table 6: Amount of burials and minimal burial population in and around Manching (based on Krämer 1985: 75-99).
- Table 7: Estimation of individuals based on the human bones in the oppidum (based on Lange 1983: 37-42).
- Figure 50a: Distribution of glass vessels, *amphorae* and *campanian* pottery (Sievers 2002: 168, fig. 2).
- Figure 50b: Distribution of hearth tools, horse gear and wagons (Sievers 2002: 169, fig. 3).
- Figure 50c: Distribution of tongs, agriculture tools and concentrations of querns (Sievers 2002: 169, fig. 4).
- Table 8: The amount of burials, weapons burials and weapon types in the La Tène B/C cemeteries (Based on Krämer 1985: 75-91).
- Figure 51: Plan of the sanctuaries: location of the sanctuaries, the cult tree, deposits, pavement (based on Sievers 1991: 147, fig. 1).
- Figure 52: Sanctuary A (Sievers 2003: 30, fig. 26).
- Figure 53: Sanctuary B (Sievers 2003: 32, fig. 28).
- Figure 54: Sanctuary E and its vicinity (from Maier et al. 1992: suppl. 5).

- Figure 55: Sanctuary C (based on Lorenz and Gerdson 2004: suppl. 6 and 7).
- Figure 56: Hypothetical reconstruction of sanctuary C, first period (Schubert 1983: 16, fig. 1).
- Figure 57: Temple area of Cambodunum, Kempten (Schubert 1995: 169, fig. 24b).
- Figure 58: Sanctuary D: earliest phase, later phase (Sievers 2003: 33, fig. 29).
- Figure 59: Human skeleton in a ditch in the north of the Altenfeld area (Sievers 2003: 101, fig. 107).
- Figure 60: Reconstruction of the gold plate cult tree (Maier 1990: 136, fig. 5).
- Figure 61: Circular pattern on the gold of the cult tree or accompanying chest or base (Maier 1990: 163, fig. 18).
- Figure 62: Head of the horse statue (Sievers 2003: 97, fig. 104).
- Figure 63: Mutilated weapons (Sievers 1989: 117, fig. 11).
- Figure 64: Distribution of sword fragments in the central excavation area (based on Sievers 1989: 111, fig. 9).
- Figure 65: Bronze head of a goddess (Van Endert 1991: table 42).
- Figure 66: Linch pin with human head (Sievers 2003: 138, fig. 136).
- Figure 67: Wheel amulets and nail cleaner (Sievers 2003: 121, fig. 125).
- Figure 68: Plan of Manching in the Roman period (Krämer and Schubert 1970: suppl. 6).
- Figure 69: Chronology of South Bavaria (From Gebhard 1989: 127 and Kellner 1990: 31, table 6).
- Figure 70: Chronology of Manching according to the *fibulae*. Group 1-12 are bronze fibulae, 13-34 iron fibulae. (Gebhard 1991: 95, fig. 42).
- Plan 1: The central area (Lorenz, H. and Gerdson, H. 2004: suppl. 2 and 3)
- Plan 2: The north area (Maier 1992: suppl. 5, 6 and 7)
- Plan 3: The Altenfeld area (Sievers 2003: 51, fig. 48)
- Plan 4: The south area (Lorenz, H. and Gerdson, H. 2004: suppl. 4-12)

Chapter 5: The *oppidum* of Titelberg, Luxembourg

- Figure 1: Aerial picture of Titelberg taken from the north side (Metzler 1995: fig. 10)
- Figure 2: Plan of Titelberg (Metzler 1995 : fig 8, p. 18).
- Figure 3. Plan of the structures near the *oppidum* (Metzler 1999: fig.1, p.11)
- Figure 4: Distribution of surface iron ores in the vicinity of Titelberg (Collis 1984: 173, fig. 10.7).

Figure 5: Structures in the region of Titelberg (Metzler 1999: fig 3, p. 13).

Figure 6: Distribution of *oppida* and hill top settlements in the Treveri region (Metzler 1995: 576, fig. 284).

Figure 7 : Topographic plan of Titelberg and its rampart system (Metzler 1995: annex 1).

Figure 8: The construction phases of the main rampart (Metzler 1995: p. 59, fig. 38).

Table 1: Chronology of the main rampart and peripheral ramparts, according to Metzler's (1995) description.

Figure 9: Settlement area and sanctuary (based on: Metzler 1995: 92, fig. 67).

Figure 10: Pre-Roman structures in the excavation area 7 (Metzler 1995: 101, fig. 73).

Figure 11: Reconstruction of the buildings in excavation area 7 (Fichtl 2000: 75).

Table 2: Width of the buildings in excavation area 7.

Figure 12: Structures in excavation area 10 (Thomas et al. 1975: p. 56).

Figure 13: Reconstruction of a post and panel house in Bundenbach (Metzler 1995: 111, fig. 79).

Table 3: Chronology of the floor levels of the house in excavation area 10 (Figure 12) (Rowlett et al. 1982: 306, table 1).

Figure 14: Detailed plan of the eastern part of excavation area 7 (Metzler 1995: 112, fig. 80).

Figure 15: Coin types 19-21 (Metzler 1995: 127, fig. 87).

Figure 16: ARDA-coins types 15-16 and 22-26; HIRTIUS-coin types 27-28 (Metzler 1995: 127, fig. 87 and 128, fig. 128).

Figure 17: Chronology and typology of the *fibulae* of Titelberg (Metzler 1995: 249, fig. 127).

Table 4: The amount of coins found in the buildings of excavation area 7 (from Metzler 1995: 146-147).

Figure 18: Distribution of coins in the major deposit complexes in excavation area 7 expressed as a percentage. (Metzler 1995: 141, fig. 96).

Figure 19: Chronology of the major complex layers in excavation area 7 (Metzler 1995: 139, fig. 95).

Table 5: The amounts of imports mentioned in the catalogue of the Metzler 1995 volume on Titelberg.

Figure 20: Distribution of Aylesford pans (Metzler 1995: 333, fig. 173).

Figure 21: Distribution of *simpula* of Castoldi/Feugère type 3 (Metzler 1995: 334, fig. 174).

Figure 22: Distribution of Cristlein-Guillaumet type sieves (Metzler 1995: 337, fig. 178).

Figure 23: Plan of the cemetery La Madelaine. (Metzler et al. 1999: 437, fig. 395).

Table 6: Amount of individuals per age group at the Lamadelaine cemetery (From Metzler et al. 1999: 249).

Figure 24: Chronology of the three burial groups at the Lamadelaine cemetery (Metzler et al. 1999: 441, table 35).

Figure 25: Fingering in burial 36 of the Lamadelaine cemetery (Metzler et al. 1999: 157, fig. 156).

Figure 26: Cremation burials of the Lamadelaine cemetery (Metzler et al. 1999: fig. 9).

Figure 27: Reconstruction of the burial chamber of Clemency (Metzler 2002: 181).

Figure 28: Sanctuary phase 1a, 1b and 1c (Metzler et al. 2000: 439, fig. 8).

Figure 29: Sanctuary phase 2 (Metzler et al. 2000: 440, fig. 9).

Figure 30: Plan of the sanctuary in phases 1-2 (Metzler et al. 2006a: 205, fig. 2).

Figure 31: Location of the main bone deposits at the sanctuary (Metzler et al. 2006a: 207, fig. 3).

Figure 32: Sanctuary phase 3 (Metzler et al. 2000: 441, fig. 10).

Figure 33: Sanctuary phases 4 and 5 (Metzler et al. 2000: 443, fig. 11).

Table 7: Chronology of the different phases of the sanctuary (based on Metzler et al. 2000: 436-444, 2003: 265-268 and various descriptions referred to on the previous pages).

Figure 34: Statues found at the sanctuary (Metzler et al. 1991: 32, fig. 7).

Table 8: Summary of the main historical events (based on Metzler et al. 1999: 14; 2003: 268; Heinen 1985: 60).

Figure 35: Section of the main ditch and adjacent structure (Metzler et al. 1991: 29, fig. 3).

Table 9: Chronology of Titelberg (Metzler et al. 1999: 343).

Figure 36: Picture of the four limestone layers at the quarry near Rumelange (Felten, R. 2006. *Stratigraphy and paleoenvironment.*)

Chapter 6: The *oppidum* of Hrazany, Czech Republic

Figure 1: Plan of the geographical region (Jansová 1986: suppl. 2).

Figure 2: Picture of the Hrazany promontory (www.celticeurope.cz).

Figure 3: Plan of the *oppidum* Hrazany (Jansová 1986: suppl. 1)

Figure 4: Plan of the Czech Republic (adapted from www.obec.krestanu.cz/stary/IMG/czechia.png).

Figure 5: Distribution of *oppida* and *emporia* in Bohemia (Salač 2000: p. 153, fig 2).

Figure 6: Distribution of *oppida* in relation to burials of La Tène A-C (Collis 1984: 169, fig. 10).

Figure 7: Hypothetical models of La Tène routes in Bohemia (Waldhauser 2002: 284, fig 7).

Table 1: Size and chronology of the Bohemian *oppida* (from Drda and Rybová 1995: 125-131; Drda and Rybová 1997: 117).

Figure 8: Size and course of the ramparts of the Bohemian *oppida* (from Drda and Rybová 1995: 130).

Figure 9: Distribution of *oppida*, *castella*, *emporia* and *Viereckschanzen* in Bohemia (from Cumberpatch 1995: 91, fig 2.1, with amendments from Salač 2000: 153, fig. 2 and Chytráček and Metlička 2004: 25, map 7).

Figure 10: The *castellum* of Záhořice (Chytráček and Metlička 2004: 277, fig 161).

Figure 11: The ramparts of Hrazany, gates, *oppidum* roads, modern roads (from Jansová 1986: suppl 1).

Figure 12 : The rampart at Doubí (Jansová 1986 : suppl. 10).

Figure 13a: Reconstruction of gate B (www.museum-pribram.cz).

Figure 13b: remains of gate B, east wing (Jansová 1986: fig. 90).

Figure 14: Gate C (Jansová 1986: suppl. 9).

Table 2: Evolution of the ramparts and gates in relation to the settlement phases (from Jansová 1992: 179-182).

Figure 15: Street plan of Hrazany: reconstruction of roads, based on description of excavated area by Jansová; hypothetical roads.

Figure 16: The evolution of the road through Červenka (Drda and Rybová 1997: 92, fig. 23).

Figure 17: Structures and boundaries in the central and Červenka area (Drda and Rybová 1997: 86, fig 18)

Figure 18: Reconstruction of the open space and the street between enclosures I and II (www.museum-pribram.cz, adapted from Jansová, *dvorcu ve středním uvalu*).

Figure 19: The construction types at Hrazany according to Drda and Rybová (1995: 145).

Table 3: Size of the enclosures (based on Jansová 1988: 310 and Maps 3, 5 and 6).

Figure 20: Location of huts in the central area and Červenka (based on Maps 4-6 and various descriptions in Jansová 1988 and 1992).

Figure 21: Distribution of forges and bronze workshops near gate A (based on Plan 1 and various descriptions in Jansová 1986).

Figure 22: Distribution of forges and bronze workshops near gate B (based on Plan 3 and various descriptions in Jansová 1986).

Figure 23: Fragment of the iron melting oven in house 19/60,61 at Červenka (Jansová 1992: table 260).

Figure 24: Distribution of iron workshops, bronze workshops, goldsmiths and weaving workshops in the central area and Červenka (based on various descriptions in Jansová 1988 and 1992).

Figure 25: Surgical instrument found in house 13/61 (Jansová 1992: table 201: 20).

Figure 26: *Balsamarium* (Jansová 1992: table 234).

Table 4: Amounts of prestigious objects in every excavation area (according to descriptions of Jansová 1986, 1988 and 1992, summarised in Appendix 2).

Figure 27a: Early La Tène sanctuary at the acropolis of Závist phase 1 (from Drda and Rybová 1995: 75).

Figure 27b: Early La Tène sanctuary at the acropolis of Závist phase 3 (from Drda and Rybová 1995: 78).

Plan 1: The area near gate A (From Jansová 1986: map 3).

Plan 2: Gate B (From Jansová 1986: map 5).

Plan 3: The area near gate B (From Jansová 1986: maps 5, 6, 7 and 8).

Plan 4: The area at Červenka (From Jansová 1992: map 37).

Plan 5: The north part of the central area (From Jansová 1988: 20, 21 and 24).

Plan 6: The south part of the central area (From Jansová 1988: map 13).

Appendix 1: Typology of *oppidum* ramparts and gates

Figure 1: main rampart types, according to O. Buchsenschutz and I. Ralson (Fichtl 2000: 48).

Figure 2: Spread of the *muris gallicus* type of ramparts (Van Endert 1987: 85, fig. 18.1).

Figure 3: Spread of the *Pfostenschlitz* type of ramparts (Van Endert 1987: 85, fig. 18.2).

Figure 4: Reconstruction of the ramparts of Mont Vully (Fichtl 2005: 54).

Figure 5: Profile of Fécamp type ramparts (Fichtl 2005: 56).

Figure 6: types of *oppidum* gates (Fichtl 2005: 65).

Appendix 3: *Viereckschanzen*

Figure 1: The *Viereckschanze* south of the *oppidum* of Manching (Krämer and Schuter 1970: 45, fig. 7).

Contents

ACKNOWLEDGEMENTS	I
SUMMARY	II
LIST OF FIGURES	III
Chapter 1: What is an <i>oppidum</i> ? Reviewing the history, definition and interpretation of the archaeological concept ' <i>oppidum</i> '.	III
Chapter 2: Whence the current interpretations on oppida? Analysing the account of Caesar, the concepts urbanism, central place and social hierarchy.	III
Chapter 3: Introduction to the case-studies.	III
Chapter 4: The <i>oppidum</i> of Manching, Germany	IV
Chapter 5: The <i>oppidum</i> of Titelberg, Luxembourg	VII
Chapter 6: The <i>oppidum</i> of Hrazany, Czech Republic	IX
Appendix 1: Typology of <i>oppidum</i> ramparts and gates	XI
Appendix 3: <i>Viereckschanzen</i>	XI
CONTENTS	XII
INTRODUCTION	1
La Tène Europe and the <i>oppida</i>	1
Aim and method	1
Structure	2
CHAPTER 1: WHAT IS AN OPPIDUM?	3
1. The definition: the features of an '<i>oppidum</i>' site	4
Ramparts	5
Size of the surface area	7
Dense population	8
Planning and (urban) lay-out	8
Production and trade	10
Chronological limits	11
Geographical limits	13
Conclusion	15
2. The interpretation: the current debate on the urban character of the <i>oppida</i>	16
Thesis: <i>oppida</i> are urban settlements with central functions	17
Anti-thesis: <i>oppida</i> are not urban	21
Synthesis: Alternative views	24
Conclusion	25
3. Conclusion	26

CHAPTER 2: WHENCE THE CURRENT INTERPRETATIONS ON <i>OPPIDA</i>?	29
1. Definition of ‘<i>oppidum</i>’	30
1. The origins of the word	30
2. Is an <i>oppidum</i> a fortified site?	32
3. Is an <i>oppidum</i> an urban settlement?	34
4. Caesar’s <i>oppida</i> : gathering place of human and natural resources?	36
5. Conclusion	40
2. Definition of urbanism and city	40
1. Social geography: the definition of a city	40
2. Urban sociology: the definition of a city	42
3. Sjoberg: the preindustrial city	42
4. Vance: the guild model	43
5. Langton: the occupational-cum-wealth model	43
6. Classical history: definition of the ancient city	44
7. Conclusion	47
3. Central place theories	48
1. The original central place theory	48
2. Alternative models	49
3. Economic and/or political centrality	51
4. Conclusion	52
4. The Mediterranean city and its traditional features	52
1. Urban lay-out	53
Street plan	54
Zoning	55
Density and organisation of habitation	55
2. Monumental architecture	56
City walls	57
Public buildings	58
<i>Agora/forum</i>	59
Temples	59
Paved roads	60
3. Trade, production and central functions	60
4. Conclusion	62
5. The definition of elite and social hierarchy	62
1. Some critical remarks against the presumption of social hierarchy and elite	63
2. Social status	65
3. The Gallic society according to Caesar	67
4. Conclusion	68
6. Conclusion	69
Appendix 1: Caesar’s accounts on Avaricum, Gergovia and Alesia	71
Avaricum	71
Gergovia	72
Alesia	72
<i>Oppida</i> of the Bituriges	73

CHAPTER 3: INTRODUCTION TO THE CASE-STUDIES	75
1. The method of the case-studies	75
2. Selection of the <i>oppidum</i> sites	75
The exclusion of Bibracte and French <i>oppida</i>	76
Manching and Bavarian <i>oppida</i> , Germany	77
Titelberg and the Treveri <i>oppida</i> , Luxembourg.	77
Hrazany and the Bohemian <i>oppida</i> , Czech Republic.	78
Why not a British <i>oppidum</i> ?	79
3. Terminology.	80
CHAPTER 4: THE <i>OPPIDUM</i> OF MANCHING, GERMANY	83
1. Introduction to the archaeological site	83
2. The <i>oppidum</i> in its regional context: Why this particular location?	87
Conclusion 94	
3. Settlement history: when did people walk the ground of Manching?	94
Before Tène B/C	94
La Tène B/C	95
La Tène C - D: settlement expansion	97
Transition La Tène C – La Tène D: break or evolution	100
Conclusion	101
4. The ramparts and gates: Defence or symbol?	102
Circular ramparts	102
Construction phases	104
Gates	106
Conclusion	109
5. The inner lay-out of the <i>oppidum</i>: urban planning and central organisation?	110
Settlement density	110
Street plan	111
Settlement structures: palisades, fences, aligned buildings	112
Open spaces	113
Standardised buildings	114
Public buildings	115
Zoning	117
Conclusion	120
6. Daily life and economic activity: Who lived and worked at the <i>oppidum</i>?	120
Houses	121
Care	121
Food supply: agriculture, cattle breeding and fishing	121
Coin production	123
Metal working	124
Glass production	125
Production of ceramics	125
Wood working, bone working, leather working and weaving	126
Market place	126
Conclusion	129
7. External contacts: the regions Manching had contact with	129
Conclusion	133

8. Social structure: hierarchy and elite?	134
How many people actually lived at the <i>oppidum</i> ?	134
Who were the inhabitants?	136
Social differentiation?	137
Conclusion	139
9. Religion: Communal cult place?	139
Sanctuaries	139
Human bones at the <i>oppidum</i>	144
Sacred or ritual objects	147
Conclusion	151
9. Decline and end of the <i>oppidum</i> and/or Roman period: Why did it end?	152
Conclusion	154
10. Conclusion: the significance of the <i>oppidum</i> of Manching	155
Appendix 1: Chronology	157
Appendix 2: Description of the major indications of industry in every excavation area	158
Appendix 3: Description of the burials of cemetery Hundsrucken and Steinbichel, and the complete skeletons at the <i>oppidum</i>	159
1. Detailed description of the burials in the La Tène B/C cemetery Hundsrucken	159
2. Detailed description of the burials in the La Tène B/C cemetery Steinbichel	160
3. Description of the skeletons and accompanying objects in the <i>oppidum</i> of Manching	162
Appendix 4: Plans of the excavation area	163
CHAPTER 5: THE <i>OPPIDUM</i> OF TITELBERG, LUXEMBOURG	173
1. Introduction to the archaeological site	173
2. The <i>oppidum</i> in its regional context: why this particular location?	176
Natural resources and communication routes	176
Other settlements and structures	179
Conclusion	183
3. Settlement history: when did people walk the ground of Titelberg?	183
Neolithic settlement?	183
Late Hallstatt –La Tène A: burial mounds and settlement?	183
Transition to the <i>oppidum</i> period	184
Conclusion	185
4. The ramparts and gates: defence or symbol?	185
The ramparts	185
The gates	191
The construction works	192
Conclusion	193
5. The inner lay-out of the <i>oppidum</i>: urban planning and central organisation?	193
Settlement density	194
Street plan	194
Settlement structures: palisades, fences, aligned buildings	195
Open spaces	197
Standardised buildings	197
Public buildings	198
Zoning	198
Conclusion	200

6. Daily life and economic activity: who lived and worked at the <i>oppidum</i>?	200
Houses	200
Care	201
Food supply: agriculture and cattle breeding	202
Coin production	202
Metal working	205
Glass production	207
Production of ceramics	207
Wood working, bone working and leather working	207
Market place	208
Conclusion	208
7. External contacts: the regions Titelberg had contact with	209
Conclusion	212
8. Social structure: hierarchy and elite?	212
How many people actually lived at the <i>oppidum</i> ?	212
Who were the inhabitants?	214
Social differentiation?	216
Conclusion	219
9. Religion: communal cult place?	219
The sanctuary and its enclosure	219
Ritual and other activities at the sanctuary and its enclosure	224
Additional ritual activity at the <i>oppidum</i> of Titelberg	226
Conclusion	227
10. Decline and end of the <i>oppidum</i> and/or Roman period: why did it end?	227
Historical events	228
Archaeological facts	228
Conclusion	232
11. Conclusion: the significance of the <i>oppidum</i> of Titelberg	232
Appendix 1: Chronology	235
Appendix 2: Characteristics of Audun-le-Tiche limestone and Haut-Pont limestone	236
CHAPTER 6: THE <i>OPPIDUM</i> OF HRAZANY, CZECH REPUBLIC	237
1. Introduction to the archaeological site	237
2. The <i>oppidum</i> in its regional context: Why this particular location?	239
Natural resources and communication routes	240
Other settlements and structures	245
Conclusion	250
3. Settlement history: when did people walk the ground of Hrazany?	251
Before La Tène C	251
La Tène C-D: foundation and settlement expansion	251
Conclusion	253
4. The ramparts and gates: defence or symbol?	253
Ramparts	253
Gates	255
Chronology of ramparts and gates	258
Conclusion	258

5. The inner lay-out of the <i>oppidum</i>: urban planning and central organisation?	259
Settlement density	259
Street plan	259
Additional settlement structures: palisades, fences, aligned buildings	262
Open spaces	264
Standardised buildings	265
Public buildings	266
Zoning	267
Conclusion	271
6. Daily life and economic activity: who lived and worked at the <i>oppidum</i>?	272
Houses	272
Care	273
Food supply: agriculture and cattle breeding	273
Coin production	274
Metalworking	274
Glass production	275
Production of ceramics	275
Woodworking, leather working and weaving	275
Trade and market function	276
Conclusion	276
7. External contacts: the regions Hrazany had contact with	277
Conclusion	279
8. Social structure: hierarchy and elite?	279
How many people actually lived at the <i>oppidum</i> ?	279
Who were the inhabitants ?	279
Social differentiation ?	280
Conclusion	282
9. Religion: communal cult place?	283
No sanctuary at the <i>oppidum</i>	283
Other religious places?	285
Conclusion	285
10. Decline and the end of the <i>oppidum</i>: Why did it end?	286
Archaeological indications	286
Interpretations	287
Conclusion	288
11. Conclusion: the significance of the <i>oppidum</i> of Hrazany	289
Appendix 1: Chronology	292
Appendix 2: List of all excavated structures at the <i>oppidum</i> of Hrazany	293
Appendix 3: Plans of the excavation area	303
CHAPTER 7: DISCUSSION AND CONCLUSION.	317
1. Review of the main assumptions about <i>oppida</i>: what the <i>oppidum</i> was not	317
1. An <i>oppidum</i> is not a traditional urban settlement	317
1.1. An <i>oppidum</i> is not urban in the sense of the idealised Mediterranean city	317
1.2. An <i>oppidum</i> was not necessarily a large settlement	320
2. An <i>oppidum</i> was not a genuine central place	321
2.1. An <i>oppidum</i> was not a central place in terms of monopolistic market and control of trade	322
2.2. An <i>oppidum</i> was not a central places with political control over the region	323

3. The <i>oppidum</i> society was not clearly hierarchical and led by aristocracy	324
4. <i>Oppida</i> were not dependent on the Mediterranean	326
4.1. <i>Oppida</i> did not depend on Mediterranean trade for their foundation and maintenance	326
4.2. The idea to found <i>oppida</i> was not influenced by the Mediterranean	327
5. The <i>oppidum</i> is not a uniform and static concept	328
2. My interpretation: what an <i>oppidum</i> was	329
1. An <i>oppidum</i> was the focal point for the region, the heart of the community	329
1.1. An <i>oppidum</i> was the central meeting place and common arena	329
1.2. An <i>oppidum</i> may well have developed into a place for communal ritual activities	331
1.3. An <i>oppidum</i> had the potential to become market place and fair ground	332
1.4. An <i>oppidum</i> had the potential to attract people to live inside its ramparts	333
1.5. The <i>oppidum</i> society not essentially hierarchical	334
Conclusion	334
2. <i>Oppidum</i> is an open and dynamic concept	335
2.1. <i>Oppida</i> are open and dynamic instead of uniform and static	335
2.2. The Iron Age was a period of complex continuity instead of linear discontinuity	337
3. Theory in practice: the case-studies	338
3.1. Manching	338
3.2. Titelberg	340
3.3. Hrazany	342
3. Future research	343
BIBLIOGRAPHY	345
APPENDIX 1: TYPOLOGY OF <i>OPPIDUM</i> RAMPARTS AND GATES	363
1. The ramparts	363
1. Ramparts with horizontal posts	363
1.1 The Ehrang type	363
1.2 The <i>murus gallicus</i> type	363
2. <i>Pfostenschlitz</i> ramparts or ramparts with vertical posts	365
2.1 The Altkönig-Preist type	365
2.2 The Kelheim type	365
3. Variations on the ramparts with posts	366
4. Ramps without posts: The Fécamp type	366
2. The gates	367
APPENDIX 2: CAESAR'S ACCOUNTS ON CLOSING OFF GATES	369
APPENDIX 3: <i>VIERECKSCHANZEN</i>	371
1. Definition: the identification of <i>Viereckschanzen</i>	371
2. Interpretation: the function of <i>Viereckschanzen</i>.	372
1. Religious functions	372
2. Profane functions	373
3. Multi-functional <i>Viereckschanzen</i>	374

Introduction

*The oppida are exceptional prehistoric settlements in Central Europe;
they emerged without indigenous roots (Krämer 1985: V)*

La Tène Europe and the oppida

Towards the end of the La Tène period apparently a new type of settlement emerged over a wide area of West- and Central Europe: the *oppidum*. But what is an *oppidum*? This question is difficult to answer. Throughout the years several definitions have been developed. These definitions include criteria of morphology, time and space. In general the *oppida* are considered to be large fortified sites in the Late La Tène period from Britain to Slovakia.

The phenomenon has intrigued scholars for centuries up to the present day. Many ambitious theories have been written about the character and the function of *oppida*. Hence, besides the physical characteristics a wide variety of political, economic and religious central functions have been attributed to the *oppida*. As a result the *oppida* are interpreted as towns, often compared to Mediterranean cities, and the *oppidum* society is thought to be centralised and hierarchically organised. Recently these interpretations have been questioned. Opponents of this viewpoint argue that *oppida* are not urban and that they did not have central place functions. This has led to the current debate on the urban character of *oppida*, a vehement debate that is still going on today.

Aim and method

I aim to understand the significance of the *oppida* in contemporary society. I will graft onto the current debate. Although the debate is interesting, it is not constructive without a proper basis and a common understanding of the terminology. The participants to the debate are on different wave lengths because their arguments are based on a series of modern concepts that are not explained in the process: urbanism, central place, social hierarchy. I will examine the meaning and validity of these modern concepts because I am convinced that they do not lead to a proper understanding of the past. Then I will review the common assumptions underlying the debate: the idea that *oppida* were urban, that *oppida* had central functions, that they

depended on the Mediterranean and that the *oppidum* society was hierarchical. I intend to deconstruct these assumptions, and to find an alternative interpretation of the *oppidum*.

To achieve this aim I will analyse three *oppidum* sites in-depth across the spatial dimension recognized in the general definition. In the analysis of the three sites I will particularly focus on the features that are traditionally seen as criteria for urbanism, central place functions and social hierarchy in order to certify their validity. I will also highlight the individual nature of the sites in order to develop an interpretation of *oppidum*-sites that will value their specific character.

Structure

This *modus operandi* is reflected in the lay out of my thesis. I will start with a review of the definition *oppidum* and the debate on the urban character of *oppida* (chapter 1). Then I will critically examine the classical word *oppidum* and the modern concepts urbanism, central place and social hierarchy (chapter 2). After these theoretical exposés I will briefly introduce the analytical methodology used (chapter 3) in the detailed examination of the *oppida*: Manching in Germany, Titelberg in Luxembourg and Hrazany in the Czech Republic (chapter 4, 5 and 6). In conclusion I will appraise the major themes concerning the function and the significance of the *oppida* and present my own interpretation on *oppida* (chapter 7).

Chapter 1: What is an *oppidum*?

Reviewing the definition and interpretation of the archaeological concept '*oppidum*'.

The meaning of the word '*oppidum*' can be found in the very origin of the idiom. It was Julius Caesar who –though fully unaware- created the concept *oppidum*. In his report on the Gallic wars, '*de bello Gallico*', Caesar described various Gallic settlements, some of which he called *oppidum*. In the late 19th century French archaeologists began to search for Caesar's *oppida*, stimulated by the order of the emperor Napoleon III (Goudineau and Peyre 1993: 5). In this search the *oppidum* Bibracte was identified and it became the archetype of all *oppidum*-sites (Lorenz and Gerdson 2004: 140). In 1914 Déchelette, who excavated Bibracte, compared its finds with those from Manching, Stradonice and Velem-Szent-Vid. From this comparison he concluded that there was a cultural unity in Europe: the *oppidum* civilisation (Fichtl 2000: 13; Lorenz and Gerdson 2004: 140). In 1962 Dehn formulated criteria for *oppida* which became widely accepted (Fichtl 2000: 13-14). The archaeological concept had taken shape. Still, there is no generally acknowledged definition and the criteria, set forth by the authors, are open to debate.

The idea that *oppida* were urban has been articulated as early as the 1930's by Reinecke (Lorenz and Gerdson 2004: 140). Various scholars, including Collis (1984a) and Fichtl (2005), argued for an urban interpretation. According to Lorenz and Gerdson (2004: 141-143) any criticism against urbanism and uniformity of *oppida* died out after the excavations of Manching and its equation with Bibracte. However, in the last decades our knowledge has grown substantially (Haselgrove 2006: 9-11). As a result the interpretation of *oppida* as urban settlements has been challenged and remains a subject of ardent debate up to today. The criticism in its most extreme form is embodied by Woolf (1993) who contests the urban character of *oppida* and the existence of the *oppidum* civilisation in its whole.

At the heart of the debate lay a set of features that are considered to be urban. As Haselgrove (2006: 17) aptly states 'researchers .. resort to criteria that have become traditional: fortification, monumental gateways, planned lay-out, industrial and economic districts and public places'. The assumed presence or absence of such features at *oppidum* sites, build one's arguments in favour of or against the urbanism of *oppida*. The problem is that the more the

idea of the urban *oppidum* became established, the more urban features penetrated in the definitions of the *oppidum*. It risks generating circular arguments. We have come to a situation where an *oppidum* is interpreted as an urban settlement because urban features are seen as part of the definition 'oppidum'.

The first section of this chapter critically analyses every aspect of the *oppidum* definition, with special attention to traditional urban features and other interpretational aspects. It aims to define the subject of my thesis, the *oppidum*, and to peel off interpretational bias in order to obtain a definition as neutral as possible to start from. The second section of this chapter summarises the views of the main scholars debating the urban character of *oppida*. It aims to understand the debate on the urban character of *oppida* because this debate is the starting point for my own interpretation. This *modus operandi* will allow the creation of an open-minded framework for my site-analysis. In both sections the study of Collis (1984) is the starting point because he has set the tone for modern *oppidum* studies.

1. The definition: the features of an 'oppidum' site

There is no coherent and generally agreed definition of the *oppidum*, although the concept is established and widely used. The criteria formulated for the German *oppida* became generalised to all European *oppida* and have been elaborated on by many other scholars. Formally, an *oppidum* is considered to be a settlement with ramparts, a large surface area, a dense population and an urban lay-out with zoning and public buildings. Functionally, it is seen as a place for production and trade. The *oppidum* is chronologically situated in the Late La Tène period and geographically confined to the west-east belt from Britain to Slovakia.

However, the benchmarks listed in the paragraph above are not an established set of criteria that makes up the definition. Every scholar makes his/her own selection and one's combination of criteria is often highly biased by one's interpretation of *oppida*. This section aims to give a profound introduction to the concept *oppidum*. Every criterion will be examined in detail and from various viewpoints. First I will discuss the formal criteria, then the functional criteria and finally the chronological and geographical definition.

Ramparts

Ramparts constitute the least debated criterion. They seem to be the pre-dominant requirement for admittance to the *oppidum* category. Wells (1995a: 91) states that “large ramparts are characteristic for *oppida*”. According to Fichtl (2000: 71) “*oppida* are large fortified sites”. Collis (1984a: 6) puts it in unambiguous terms: “a site without defences can not be an *oppidum*”. The ramparts have attained a decisive position. The open settlement Berching-Pollanten, for instance, has the same artisanal activities and same spatial organisation as the *oppidum* of Manching but it is not accepted in the list of *oppida* because of the absence of ramparts (Kaenel 2006: 31). Of the open settlement Acy-Romance “nobody would have hesitated to call it an *oppidum* if only the smallest indication of a *muris gallicus* (rampart) would have been found” (Kaenel 2006: 32). Woolf (1993: 223-224) argues that the distinction between fortified and unfortified is misleading because *oppida* often have more in common with open settlements than with other fortified sites (Woolf 1993: 223-224). Indeed, the organisation of open settlements is comparable to that of *oppida* (Collis et al. 2000: 81) but the relationship between *oppida* and open settlements is much more complex than Woolf suggests. Research in Central France has shown that open settlements were located in agricultural areas and that their location has no obvious natural defensive quality. Furthermore, *oppida* were a later development. They emerged either on or nearby an open settlement (Collis et al. 2000: 81).

On the other hand, not every enclosed site is an *oppidum*. The need to distinguish *oppida* from other fortified sites causes a definitional problem. Particularly in the west and east, on the borders of the so-called *oppidum* area (Figure 6) there is much definitional confusion. In Britain some scholars use the word *oppidum* only for a few distinctive sites in south east England. Others extend it to sites such as Maiden Castle and Hod Hill although they are mainly called hillforts. For the British Isles there is no consensus yet as to which sites are actually *oppida* (Collis 1984a: 6). In Bohemia there is a second settlement category called *castellum*. They are considered to be different from *oppida* in size and function (Waldhauser 1984: 260-267; Figure 1). Yet, the creation of the class ‘*castellum*’ is ill-founded and not much is known about their role and about the nature of their occupation (Cumberpatch 1995: 73). Even in France, the cradle of the *oppidum* concept, scholars are divided between the

term *oppidum*, which is called a German product, and the British term hillfort (Duval 1984: 279).

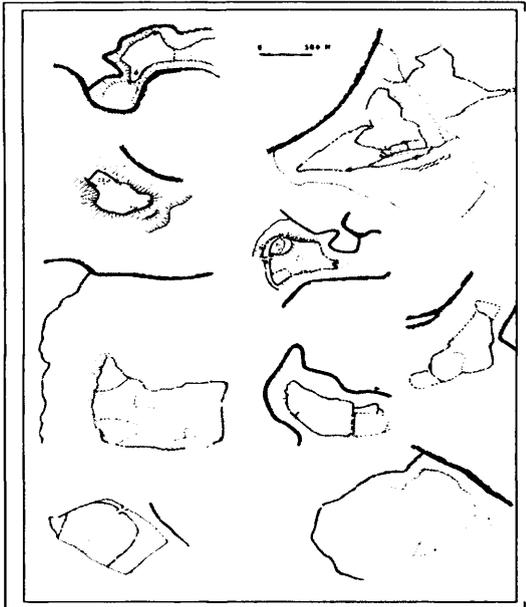


Figure 1a: The Bohemian *oppida*
(Waldhauser 1984: 265, fig. 10)

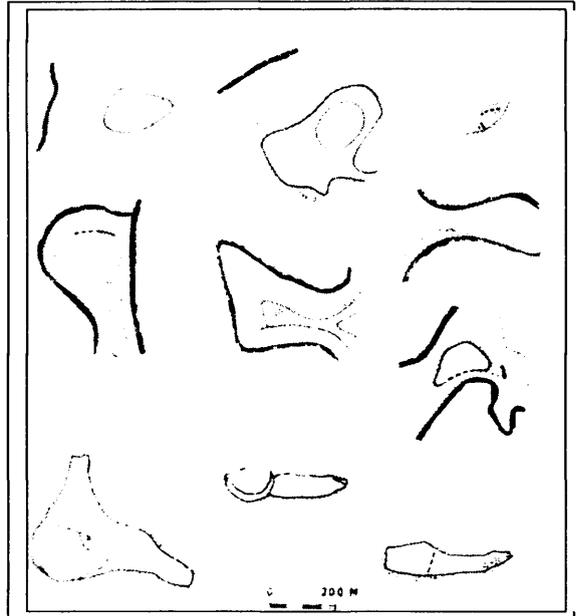


Figure 1b: Some Bohemian *castella* (from
Waldhauser 1984: 266, fig. 20)

The distinction between *oppidum* and non-*oppidum* fortified sites is often based on the type of ramparts. A classification of ramparts types has been developed for *oppida* (Appendix 1). The *muris gallicus* is considered to be typical for the west and the *Pfostenschlitz* for the east (Fichtl 2005: 52-54; Buchsenschutz 2004: 346). Gates are mainly a *Zangentor* construction (Fichtl 2005: 64). However, British *oppida* have a completely different system that consists of dykes (Woolf 1993: 225) and there are even small hillforts in Europe with a *muris gallicus* rampart (Duval 1984: 280). Another approach to define the fortification of the settlement may be a distinction based on the function of the ramparts. Recently the effectiveness of the *oppidum* ramparts as defence has been questioned (Fichtl 2005: 78-80). Alternatively, the ramparts are often seen as a symbol; a sacred boundary (Fichtl 2005: 83); the symbol of power and control (Collis 1984a: 107; Brun 1995a: 17-18); the symbol of the act of settlement foundation (Kaenel 2006: 28, 32) and the act of cooperation (Sharples 2007).

Ramparts are commonly accepted to be the basic criterion in defining an *oppidum*. I will therefore not contest this feature. Although I am aware of the fact that there are enclosed settlements of which the *oppidum* status is debatable, I will focus on the accepted *oppidum* sites with acknowledged ramparts. However, I will include the settlement phases that are dated in the period before the existence of ramparts. I take the view that an open settlement has the potentiality to become an *oppidum* and that an *oppidum* can easily evolve into another settlement type. The function of the ramparts will be examined in every case-study, especially since there is no theoretical consensus yet.

Size of the surface area

The second important criterion for the definition of *oppida* is the size of the enclosed area. This may seem a quite straightforward criterion, but in fact it varies widely among scholars. Collis (1984a: 6-7) states that the *oppidum* area ranges from 25-30 up to more than 1000 ha. He is quite adamant about that and argues that “20-25 ha can be taken as the rough dividing point between hillforts and *oppida*” (Collis 1984a: 9). Waldhauser (1984: 260) argues for an *oppidum* area between 15 and 170 ha, in opposition to the acreage of the *castella* between 0.3 and 9.3 ha. Fichtl (2005: 19, 166) agrees with the minimum surface area of 15 ha and states that hillforts are smaller than 10 ha. Duval (1984: 279) even puts the minimum area for an *oppidum* at 10 ha. Guillaumet (1984: 278), on the contrary, accepts a minimum of 50 ha (Fichtl 2005: 19). In sum, the required minimum surface area varies widely between 10 and 50 ha and there is no clear consensus on the minimum size of *oppida*.

The minimum size fits in the unspoken agreement that *oppida* are larger than other sites (i.e. Brun 1995b: 121). Yet, our preoccupation with size has to be put into perspective. The enclosed area depends on the course of the ramparts which is often merely determined by the configuration of the locality (Duval 1984: 280). Furthermore, as Fichtl (2005: 19) remarks, the actual settled area is often much smaller than the enclosed area. The question is what constituted the significance of a site at that time: the size of the actual settlement or the amount of hectares one is able to enclose by ramparts? The emphasis on monumentalised size may be merely a modern obsession. This seems to be inspired by other modern assumptions such as central place theory of Christaller (chapter 2) which ranks settlements based on the size.

My analysis will not be restricted to large sites. On the contrary, as it is my aim to examine the specific nature of the individual sites I rather prefer to select sites with various sizes. My site analyses will also include a section on the difference between enclosed area and inhabited area plus on the question why that particular area was chosen to be enclosed.

Dense population

The review of the inhabited surface leads to a third criterion for *oppida*: the presence of a large population (Collis 1995: 76) which is permanently based at the *oppidum* and which is suggested by the finds of dense occupation evidence (Brun 1995b: 121). However, nucleation is not convincingly demonstrated and a high population is often deduced simply from the height of the ramparts and the demonstrated manpower required for its construction and maintenance (i.e. Knopf *et al.* 2000: 141). Furthermore, *oppida* are not always totally occupied (Fichtl 2000: 71). Sometimes traces of occupation are so sparse that the *oppidum* seems nothing more than a refuge (Wells 1995a: 90). In fact one should carry the question further and examine whether the *oppidum* was meant to be a settlement in the first place.

I will select sites with sufficient settlement evidence. At every case-study I will present an estimation of the population rate wherever possible.

Planning and (urban) lay-out

The question about the settlement function brings us to the criterion that the *oppida* had a sophisticated settlement organisation. The general theory is that *oppida* have an urban layout. This is best expressed by Collis (1984a: 105-120, 136) who sums up the following features: defences, public buildings, and various house types plus residential and industrial districts. He concludes that the lay-out of *oppida* resembles that of Mediterranean towns (Collis 1984a: 136).

However, the evidence for urban lay-out is mainly deduced from a few sites. Such generalisation should be made with care. Collis was aware of the fact that we do not have a complete plan of any *oppidum*, that public buildings are generally unknown, and that specific

zones and public amenities such as streets and water supply are not adequately proven (Collis 1984a: 107, 124, 136). Twenty years later Fichtl (2005: 105) states that our knowledge has increased and he still argues for features of urban lay-out, such as palisade enclosures, elite houses and public temples (Fichtl 2000: 86-90). However, he equally deduces these features from a very small selection of sites. In fact he only refers to the largest and most elaborate *oppida* of Villeneuve-Saint-Germain, Titelberg, Manching and Bibracte (Figure 2). They are not necessarily representative of the majority of the *oppida*.

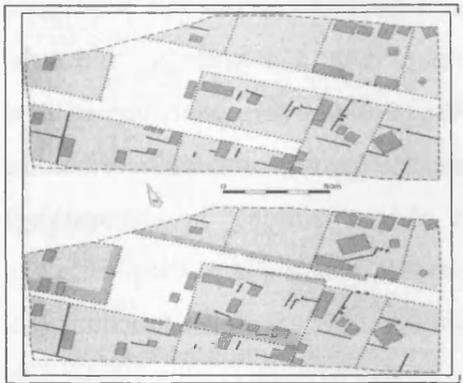


Figure 2a: Lay-out of the *oppidum* Variscourt/Condé-sur-Suipe (Fichtl 2005: 91)

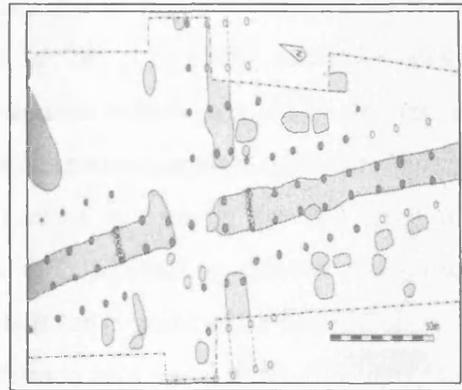


Figure 2b: Lay-out of the orthogonal roofed ditch system at the *oppidum* Villeneuve-Saint-Germain (Fichtl 2005: 93)

Recently several authors have argued that the existence of the urban lay-out has been exaggerated. Lorenz and Gerdson (2004: 137-138) state it is based on presumptions only. Buchsenschutz (1995: 55, 61) argues that an urban lay-out is most obvious in sites dating to the post-conquest period only. Furthermore, scholars argue that the *oppida* are not very different from other settlement types. According to Woolf (1993: 223) zoning is not confined to *oppida*. Cumberpatch (1995: 74) argues that settlement is based upon the palisaded enclosure similar to that on the undefended sites. Schubert (1994: 191), who studies the structures of Manching in detail, concludes that nobody can really define the typical buildings and settlement structure of the *oppida*.

The urban layout and its features are clearly connected to the interpretation of *oppida* as urban settlements. With this criterion the interpretation of finds has entered the definition. I would like to refrain from such interpretations in a definition as they are far from neutral and rather belong to one's opinion about facts. However, the traditional urban features are central to the

debate on the urbanism of *oppida*. I will review these features in every site under study in order to test their validity: urban lay-out in general, and ramparts, public buildings, various house types and functional zoning in particular.

Production and trade

The next criterion is rather functional: *oppida* are considered to be centres of production and trade. First of all they are thought to be centres of specialised and large-scale production (Collis 1984a: 87; Brun 1995a: 17; 1995b: 121). Collis (1984a: 87) refers to “industrial production on a scale previously unknown”. Wells (1995a: 90) even argues that manufacturing is the primary significance of *oppida*. The arguments are mainly based on the presence of tools and the amount of various products of iron working, bronze working, ceramics and glass. Workshops have been identified at several *oppida* due to the presence of finds such as debris and of building types that are assumed to have specialist functions (i.e. Jacobi 1974: 263-268). *Oppida* are also considered to be centres of trade (Collis 1984a: 138, Brun 1995a: 17). This is deduced from the presence of coins and imports, preferably Mediterranean imports, at the *oppidum* sites. Their role as centres of trade is often taken for granted and it is often assumed that the survival of *oppida* depends on long-distance trade (Salač 2000: 154-155).

But production and trade are not a prerogative of *oppida*. Evidence for production, coinage and imports are also found at non-*oppidum* settlements (Collis 1984a: 92, 103). Open settlements like Aulnat, France, produced evidence for iron working and glass working, even coin production. Woolf (1993: 228-229) concludes that *oppida* did not play a specialised role either as centre of production or as centre of consumption. Cumberpatch (1995: 69-74) argues that iron working is not proven to be more extensive at *oppida* than at industrial villages in Bohemia. In the dimension of trade, Mediterranean imports are actually rare at *oppida* such as Manching (Sievers 2003: 86) and the Bohemia *oppida* (Cumberpatch 1995: 80). Cumberpatch (1995: 77) argues that “the idea of monopolistic market centred on the *oppidum* carries a considerable ideological burden”.

Woolf and Cumberpatch are opposing the idea that *oppida* are centres of production and trade. The focus of the disputed criterion is the meaning of the term 'centre'. A centre can be seen as a site with large-scale production and trade, or a site that has a principal production and trade function. But a centre can also be interpreted as a site with a monopoly in the region or with more extensive production and trade than other sites. Such interpretation is related to the central place theory and it is in fact this central place idea that causes debate. The theories on central places will be discussed in chapter 2. In conclusion, there is clearly some obscurity in the debate related to this criterion. It is generally agreed that production and trade took place at the *oppida*, but its role as 'centre' is debated.

I will analyse the evidence for production and trade in every *oppidum* site under study, in order to evaluate the extent and significance of these economic activities at the *oppida* and their vicinity.

Chronological limits

Chronologically the *oppida* are generally confined to the late La Tène period or to the 2nd to 1st century BC. The existence of the *oppida* coincides mainly with La Tène D. The relative chronology of this period has been revised several times. In the mid 1970s La Tène D1 was thought to start in 100 BC and La Tène D2 in 50 BC. At the end of the 1980s – beginning of the 1990s La Tène D1a was thought to start around 150 BC, La Tène D1b around 120 BC, La Tène D2a around 85 BC, and La Tène D2b around 60-50 BC (Kaenel 2006: 23-26). According to Kaenel (2006: 26; Figure 3) the debate on the subdivision of the La Tène D chronology is more or less stabilised by now, although there are some objections.

A major counter-argument against the more or less established chronology of La Tène D (Figure 3) is the fact that it is mainly based on western European data. In south Bohemia and Germany *oppida* probably emerged as early as La Tène C (Collis 1984a: 48). Fichtl (2005: 36-40) argues that the *oppida* started as early as 175 BC, with the famous gate D of the Bohemian *oppidum* Závist, and that they lasted until the first decades of the 1st century AD in France and Luxembourg (Figure 4). It remains debatable when to fix the beginning and the end of an *oppidum*. The date of the ramparts does not necessarily coincide with the start of the settlement. Settlement at Manching, for instance, starts in La Tène C or possibly La Tène B,

but Manching is only accepted as an *oppidum* from the moment the ramparts were constructed (Chapter 4).

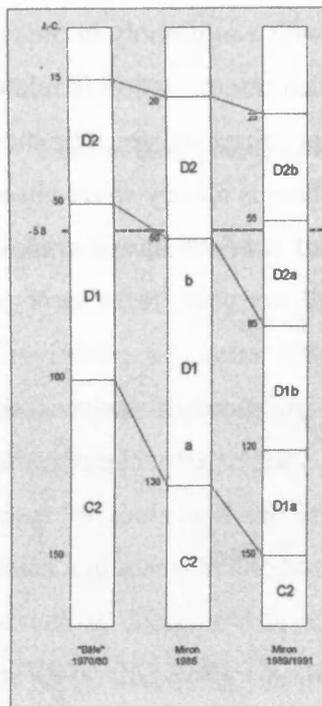


Figure 3: Chronology of the late La Tène period (Kaenel 2006: 26, fig. 7)

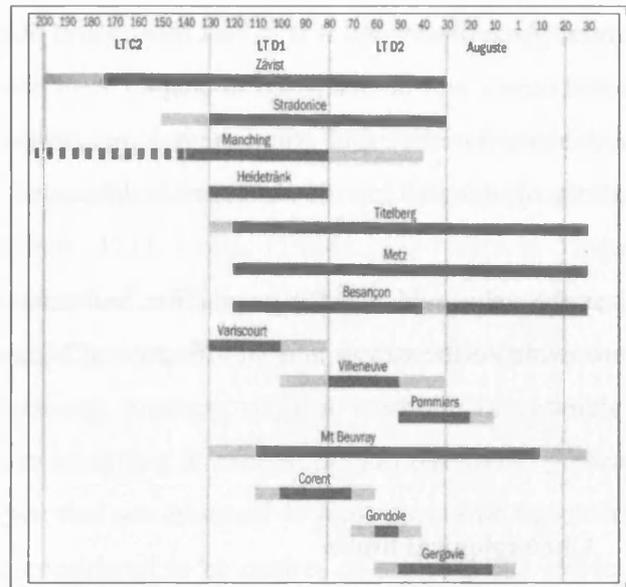


Figure 4: Chronology of the major *oppida* (Fichtl 2005: 37)

Furthermore, the relative chronology cuts out the *oppida* from the rest of the La Tène period. A small deviation on the La Tène period and the preceding Hallstatt D period is required here and I will use the summary produced by Collis (1984a: 41-48). In Hallstatt D there were hillforts with various kinds of rectangular houses and evidence for industry, surrounded by rich tumulus burials. There was also a marked increase in Mediterranean imports. In the La Tène A period most of the hillforts disappeared and the number of rich burials and Mediterranean imports decreased, though with regional variations. In La Tène B hillforts and burials in some highland zones, e.g. in Bohemia, entirely disappeared and defended sites were extremely rare. In this period there were open settlements and inhumation cemeteries in the lowlands. At the end of La Tène C *oppida* had been established in Germany and south Bohemia and the inhumation burial rite was given up everywhere. In sum, there is apparently a remarkable gap in defended hilltop settlement tradition in the period preceding the *oppida*.

The Hallstatt D - La Tène A hillforts do have some similarities to the *oppida*. The Heuneburg for instance is an enclosed settlement with clear internal organisation (Figure 5). Collis (1984a: 3) already notices that the Heuneburg displays a variability in house structures, a concentration of trade, especially Mediterranean imports, and signs of a social elite. Collis (1984a: 5, 43) states that the Heuneburg has many urban characteristics. Metzler *et al.* (2006a: 221-222) compare the *oppidum* at the Titelberg with Hallstatt D hillforts, such as the Heuneburg (Figure 5) and make an appeal for the reintegration of the early period.

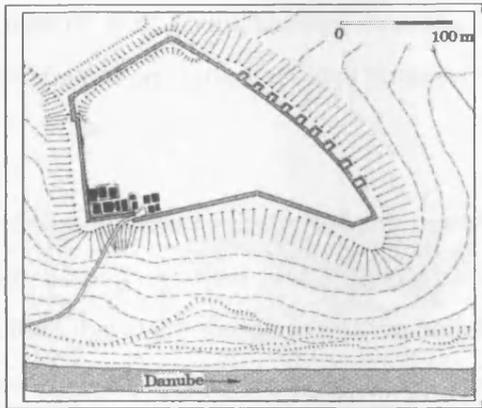


Figure 5a: The Heuneburg in late 6th century BC (Collis 1984: 42; fig. 4-3)

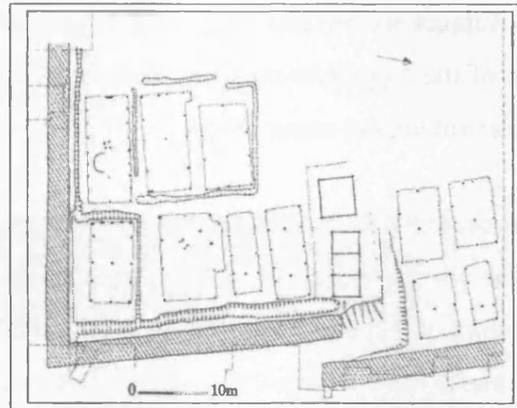


Figure 5b: The southeastern part of the Heuneburg. (Collis 1984: 4, fig. 1-3)

The sites I select will certainly date to the La Tène D period but the site-analysis will also include the previous periods of these sites, especially from Hallstatt D – La Tène A onwards, as well as the following periods. I prefer to see the *oppida* as a part of a long term settlement evolution.

Geographical limits

Geographically *oppida* are considered to be a phenomenon of Central and Western Europe (Collis 1984a: 8). The commonly accepted distribution of *oppida* is clearly presented in the plan published by Kaenel (2006: fig. 2; Figure 6).

The possible oversight with this spatial definition is that it excludes potential *oppidum*-like settlements that happen to lie outside these spatial boundaries. The settlements eastward of the Hungarian plane are not called *oppida* but Zemplín-type sites (Collis 1984a: 12-13), although they have several similarities to the *oppida*, such as: scale, artisanal activity and similar

ceramics (Woolf 1993: 225). In Poland there are structures with an “*oppidum*-character” but large-scale excavations are lacking which limits our knowledge (Van den Boom 2000: 172, 174, 176). At the western edge of the *oppidum* region, in Britain, there is no consensus on which sites are *oppida* or hillforts (Collis 1984a: 6). The northwest European plain was commonly considered to be located outside the *oppidum* region but it is recently argued that it was an intermediary zone (Gerritsen and Roymans 2006: 251, 255, 264). At the southern edge of the *oppidum* region, in north Italy or Gallia Cisalpine, *oppida* are said to appear in the 3rd century BC (Schulze-Forster 2000: 31). Also in Spain there are *oppida* (Figure 7) but “it is a study subject we are just beginning to understand” (Álvarez-Sanchís 2005: 255). In sum, the limits of the ‘*oppidum*-area’ are debatable. Future research may well alter the boundaries of the relevant area to some extent.

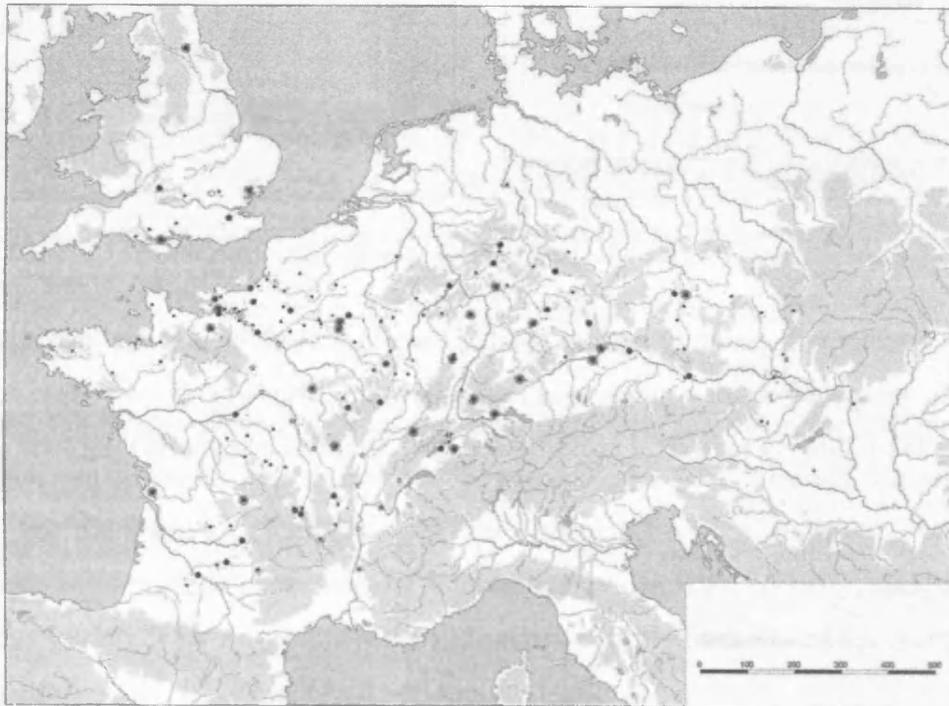


Figure 6: Distribution of the *oppida* (Kaenel 2006: 21, fig. 2).

I will select *oppidum* sites that are located in the traditional *oppidum* area, because I do not intend to question the legitimacy of the existent *oppidum* area or to compare established *oppida* with would-be-*oppida*. That would require a different research question.

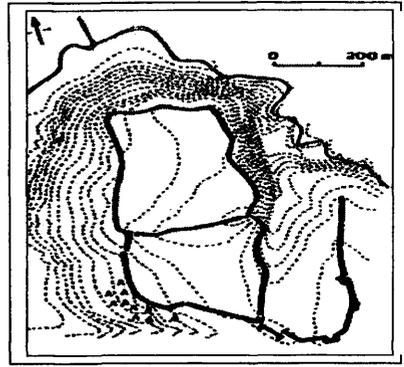


Figure 7: The *oppidum* of La Mesa da Miranda, Spain. (Álvarez-Sanchís 2005, fig. 2)

Conclusion

The defining criteria of the concept *oppidum* are all open to debate, mainly because of the variety among *oppidum* sites. From my review of the arguments in the history of the debate I conclude that the criteria are relative notions and that they should not be too rigid and static. Therefore I will argue for an open and dynamic concept ‘*oppidum*’, with special attention to the individuality of each *oppidum* site. I acknowledge the argumentation of Haselgrove (1995 : 81) who emphasizes the spatial and temporal variation of *oppida* and states that *oppida* may be “no more than the most conspicuous in a continuum of broadly similar sites” Still a minimal definition of the research subject is required. I will stick to the most factual and least debated criteria because I do not question the validity of the *oppidum* concept; instead I aim to investigate the function and significance of the established *oppida*. In my opinion an *oppidum* is a fortified site within the accepted chronological and geographical limitations but I will attempt to cover different regions and to include the pre and post periods of the enclosed *oppidum* era. The remaining criteria will be checked in the case-studies: the function of the ramparts, the actual settlement size, the population density, the economic activity and the urban lay-out. I will also explore additional aspects in order to highlight the individual character of the *oppidum* sites, to broaden the traditional concept *oppidum* and to make it more dynamic.

The definition is tied up with elements that imply an urban interpretation of the *oppida*. The series of criteria as a whole resembles our idea of a city: the ramparts, the relatively large size, the dense population, but even more the urban lay-out and the presence of production and trade activity. The element of production and trade is even matched up against the idea of a

centre within the regional setting. The topic that remains to be debated lies in, what was first: *oppida*, the archaeological facts, or the criteria imposed onto these facts? In my site-analyses I will check the presence of these criteria at the archaeological sites. The next section reviews the evolution of the debate on the urban interpretation of *oppida*.

2. The interpretation: the current debate on the urban character of the *oppida*

In this section I will review the main interpretations of *oppida* in order to understand how the view on *oppida* evolved and to retain the valuable elements of each viewpoint. The evolution of the interpretation of *oppida* is a dialectic process. I take Collis' monograph '*Oppida. Earliest towns north of the Alps*' (1984a) as a starting point because Collis has set the tone. His thesis is that *oppida* are towns with central political and economic functions. Many scholars followed his line of thought enhanced with their own particular interpretations. Fichtl (2005), who leans heavily on Collis, emphasises a ritual function. Buchsenschutz (1995) adds the status of central place, and Brun (1995a, 1995b) associates *oppida* with the state formation. But then Filip (1981) formulated objections against the urbanism of *oppida* and the anti-thesis got well started when Woolf wrote his significant article '*Rethinking the oppida*' (1993), which fired up the debate. He criticised all the common assumptions, opposed the urbanism and even the existence of uniformity between *oppida*. Cumberpatch (1995) and Haselgrove (1995) than rethought the *oppida*, and Salač (2000) concluded the creation of the *oppida* was a failure in the evolution of settlement. Recently a whole range of alternative views, the synthesis, were raised. These views range from the theory that *oppida* were symbols of communal activities (Woolf 1993, Cumberpatch 1995, Haselgrove 1995) to the idea that they were princely seats just like the La Tène A hillforts (Kaenel 2006).

The viewpoints of these scholars will be discussed in this order. In each case I will first outline the ideas concerning the urbanism and central place function of *oppida*, and then where applicable I will add two closely related subjects: social structure and the relation of *oppida* to Mediterranean trade.

Thesis: *oppida* are urban settlements with central functions

The fact that Collis considers *oppida* to be urban is clear from the very title of his work '*Oppida. Earliest towns north of the Alps*' (1984a). Collis (1984a: 185) even states that *oppida* have generally much in common with the Mediterranean cities. Collis does not present a clear definition of urbanism or a comprehensive body of arguments to sustain his idea of urban *oppida*. But the content of the chapter 'town layout' (Collis 1984a: 105-124) shows what he considers to be urban features: public buildings and amenities, defences, private buildings and a settlement plan that conforms a pattern of layout of the classical Mediterranean towns. He also mentions that formats of industry were not found because of the lack of sufficient data. It reveals a quest for specific features which I will call 'traditional urban features': ramparts, public buildings and amenities, and urban lay-out including industrial zoning.

According to Collis *oppida* are essentially production and market centres (Collis 1984a: 188). He documents this theory with finds including: coins, imports, tools and with other finds related to workshops (Collis 1984a: 87-101; 137-166). Such evidence may well document that production and trade happened at some *oppida*. What Collis means by 'centre' seems to be clarified when he parallels *oppida* with administered solar systems. This is a category of central places in which each town has a monopoly as market-centre for the hinterland (Collis 1984a: 182; chapter 2). Collis (1995) also argues for a central political role of *oppida*, but he does not specify the nature of that political function. It seems mainly based on the accounts of the classical authors, as he mentions for instance that Caesar reported on annually elected magistrates and a senate of the Aedui (Collis 1995: 75). Collis (1984a: 104) acknowledges that a political central function is hard to prove archaeologically. He did not attribute a religious function to the *oppida* at that time but recently he reconsidered this (personal communication). Later on Collis (1995: 76) confirms the view that *oppida* are highly focussed centres with political and economic institutions and the characteristics of central places.

Trade is central to Collis' interpretation. He states that the *oppidum* is essentially "a place where the elite could protect themselves and whence trade and trade routes could be controlled" (Collis 1984a: 188). The role of Mediterranean trade might be overemphasised, but this is common to many scholars. Collis' approach has essentially three pillars: economic,

social and geographic (Collis 1984b: 283). Hence his focus on the trade networks, scale of production and appearance of a market economy using coinage (Collis 1976: 19).

Collis (2010: 3) argues for a hierarchical society with presumed land-owning aristocratic elite. He assumes that the elite lived in the largest houses of the *oppida* while the artisans lived in the smallest houses (Collis 1984a: 104, 113, 117). He also states that the wealthier classes were in control of coin production and that they were the literate class (Collis 1984a: 104). It is not entirely clear what these classes of Collis were based on; his aristocratic land-based elite, or maybe an administrative class that controls external trade just like the elite does in administered solar systems with which Collis (1984a: 182) links the *oppida*.

Collis' views on the functions and urbanism of *oppida* and on the significance of trade are based on generalisations. He starts from a wide variety of archaeological finds from very different sites, added with information from Caesar and supplemented with modern concepts of urbanism and central places. At all three levels many leaps of assumption have been taken. On the other hand, Collis is fully aware of that problem and regularly points to exceptions. His theory remains highly preliminary. He makes only broad statements without any elaborations into detail. Collis (1984a: 185) acknowledges that his work is essentially descriptive. The advantage is that he never really becomes narrow-minded. It was his aim to highlight the existence and role of *oppida* and to call for a more theoretical and questioning approaches (Collis 1984a: 185). He also pleads for studies of the surrounding countryside and rural settlements (Collis 1984a: 189). Currently, more than twenty years later, it is proven that he attained his aims. The *oppida* became the centre of research and debate, and the attention has shifted to the *oppidum*'s vicinity. Collis has shown us what *oppida* potentially could be, and that there is a considerable amount of promising data captured throughout Europe.

Twenty years after the publication by Collins, Fichtl wrote a monograph '*La ville Celtique. Les oppida de 150 av. J.-C. à 15 ap. J.-C.*' (*The Celtic city. The oppida from 150 BC to 15 AD*). Fichtl states unreservedly that *oppida* are cities. In his opinion the definition of a city consists of: ramparts, common thoughts, urban lay-out, new foundation and large size (Fichtl 2005: 199).

Fichtl (2005: 91-97) also believes that *oppida* are political and economic centres with ritual functions. He states that *oppida* are centres of regional economy because he assumes that production at the *oppidum* exceeds the local needs (Fichtl 2005: 121). His theory of trade centres is based on classical authors and the presence of coinage and imports (Fichtl 2005: 102-108). For the political centre theory he refers to: classical authors, the assumed political power of coins and places for mass gatherings, which he discerns at Titelberg, Manching and Bibracte (Fichtl 2005: 120, 143-149, 161; 166). Though, he admits that a political central function remains hard to prove archaeologically (Fichtl 2005: 149). The ritual functions, Fichtl (2005: 129) deduces from the fact that some *oppida* have sanctuaries and that there are planned cult places. Fichtl considers the *oppida* to be centres, yet it is not clear what exactly he means by 'centre'. Apparently a centre is a place where there is trade, a surplus production and assumed political power. It is not clear if Fichtl alludes to central place systems (chapter 2). He does mention a settlement hierarchy, based on Caesar's classification *aedificium-vicus-oppidum* (Fichtl 2005: 166-177). Therefore it seems that he sees the *oppida* as the summit of the settlement hierarchy.

Fichtl's theory on the *oppidum* society is rather incoherent. On one hand he relates the emergence of *oppida* to the emergence of a new class of artisans and merchants (Fichtl 2005: 35; 199). Such a class would suggest a rather equal and homogeneous society. On the other hand, he wants to fit an elite in the same picture. He assumes that the enclosures or farmsteads are the residences of the elite, based on the fact that these farmsteads were "extraordinary" (Fichtl 2005: 101). However, concerning the existence of farmsteads he refers to Manching and Bibracte only.

Fichtl follows in Collis' footsteps both in interpretation and in research method. He also bases an urban theory on data collected from different sites. Yet, he is more categorical than Collis and he takes even less *oppida* as examples to sustain his arguments. However, Fichtl is a child of his time. He is desperate to combine the traditional view of Collis (1984a) with the recent theories such as the role of artisans, ritual function of *oppida* and agricultural activity at the *oppida*. As a result his interpretation is inconsistent. At the same time, many new insights in settlement research have not been adequately addressed by him. Fichtl seems unable to exceed the French historical context for his interpretation of *oppida*.

Various other scholars follow Collis's statements but take them a step further. Brun considers *oppida* as a decisive stage to state formation. He studies the evolution 'from chieftdom to state organisation' (1995a) and '*oppida and social complexification in France*' (1995b). Brun (1995a: 18) states that *oppida* are urban because they have a large permanent population and they are in the centre of the territory they control. Both his arguments are in fact assumptions and interpretations. He argues that the urban settlement type was adapted from the Mediterranean (Brun 1995a: 16). Furthermore he considers the *oppida* to be politically autonomous centres with an ideological function that control the region (Brun 1995a: 18; 1995b: 124-125). He founds this theory on the distribution of coins, on the presence of sanctuaries and on comments of Caesar. Brun (1995a: 18) adds an agricultural aspect and argues that the open spaces could be used as pasture, and the palisades to domesticate cattle. This is an interesting topic to bear in mind, especially since I believe the modern dichotomy between city and countryside of medieval towns should be abandoned. Brun also relates the *oppida* with the Mediterranean. He supports the assumption that *oppida* were the dependent periphery in the Mediterranean world economy controlled by the centre, Rome (Brun 1995a: 23).

Buchsenschutz (1995: 61) agrees that *oppida* are urban, but he struggles with the traditional notion of urbanism. He states that the *oppida* do not have an urban lay-out, only rarely collective urban amenities and no public places (Buchsenschutz 2004: 346-347). Therefore he argues for an original, atypical form of urbanism different from the Mediterranean type of urbanisation (Buchsenschutz 1995: 61; 2004: 348; Buchsenschutz and Krausz 2001: 292-294). The traditional urban features are explicitly associated with Mediterranean cities. The lack of these features causes confusion about the urban character of *oppida*. Furthermore, he states that urbanisation came only shortly before the conquest (Buchsenschutz 1995: 61) and that the *oppida* were urban but not in the full meaning of the word because the planned urbanisation was not everywhere equally successful (Buchsenschutz and Krausz 2001: 292-294; Buchsenschutz 2004: 347-348).

Buchsenschutz (1995: 53) also argues that *oppida* are central places. In his opinion a central place is a place with: craft industry and specialisation, market and exchange functions, trade relations with isolated settlements, social hierarchy, continuous fortifications, monumental gates, a large inhabited area and settlement planning (Buchsenschutz 1995: 61-62). Concerning social organisation he argues for an aristocracy in command of production and

trade, though he also follows the recent beliefs in the integration of the artisans into society (Buchsenschutz and Krausz 2001: 297).

Anti-thesis: *oppida* are not urban

Filip (1981: 182, 184) contests the urban character of *oppida* and argues that it is deduced from a few features only which are unequally represented among the *oppidum* sites. He states that at the majority of the sites settlement planning is not evidenced. Moreover he opposes even permanent settlement because most *oppida* would only last for two to four generations. Concerning economic functions he admits that trade is important, but argues that coinage is not restricted to the *oppida*, that specialised production is only obvious at a few sites and that evidence for the exploitation of raw materials is rare. Filip (1981: 182, 186) concludes that only the *oppida* of Bibracte and Manching can be considered close to urban settlements. He does not grant a major role to *oppida*. On the contrary, he sees the *oppida* as an element in the decline of power and the construction of the ramparts as an indication for an increased need for defence (Filip 1981: 186). I agree with Filip (1981: 186) that not every large fortified settlement from Late La Tène must be seen as urban. And it is certainly valuable that he puts the one-sided vision of pro-urban authors into perspective. But to deny urbanism, settlement and any significance to *oppida* is an extremist view as well. It must be said that Filip's views are a result from the particular situation of the *oppida* in Bohemia. It is certainly true that many theories on *oppida* are based on a limited number of sites only and that the situation in Bohemia can add new valuable insights to our understanding of the *oppidum*.

Woolf strongly opposes the assumed urbanism and central place functions of *oppida* in his article '*Rethinking the oppida*' (1993). He states that the urbanism of *oppida* is based on Caesar, on supposed similarities to Roman cities or medieval towns, and on the posited relationships between urbanisation and the development of political structures, artisanal or industrial activity and commerce (Woolf 1993: 226, 231). Against the attribution of urbanism he argues that *oppida* generally lack "many features normally associated with urbanisation": zoning, settlement hierarchy and a clear evidence of central place functions (Woolf 1993: 223). He adds that public buildings and public spaces are hardly demonstrated (Woolf 1993: 230). Woolf (1993: 227) aptly remarks that the search for urban status merely reflects a search for familiar features of classical cities and medieval towns. This is true. Scholars have indeed

been trying to identify modern urban concepts at the *oppida*. However, Woolf falls into the same trap himself when he uses the lack of the traditional urban features as his argument against urbanism. I do agree with Woolf (1993: 232-233) that urbanism is not a necessary stage of development and social evolution.

Woolf (1993: 228) also contests central place functions of *oppida*. Yet it is not clear what model of central place he is fulminating against. His arguments are that iron and glass working, and even coin production were not restricted to the *oppida* (Woolf 1993: 228) and that little of the production of *oppida* was distributed to the surrounding region (Woolf 1993: 229). But there are various models of central places and they do not necessarily imply a production scale that is larger than at other settlements (chapter 2). Woolf (1993: 229) also argues that the central place functions are based on the simplistic model of large sites dominating smaller ones. This recalls the central place theory of Christaller (chapter 2) which is indeed outdated and simplistic. I agree with Woolf (1993: 227) that complex settlement organisation should not automatically indicate central place functions.

Woolf has made a significant contribution to *oppidum* studies because he has undermined all the established assumptions and this has led to the rethinking of *oppida* he aimed for. His article is mainly destructive and not constructive, but the latter was probably not his goal. Woolf identified the underlying assumptions and concepts which caused the debate and which obstructed a clear view on *oppida*.

Cumberpatch (1995) reviews the archaeological research on Late Iron Age Bohemia and Moravia. He strongly opposes the “orthodoxy which has prevailed for the last 40 years and has cast the *oppida* in the inappropriate role of ‘Europe’s first towns’” (Cumberpatch 1995: 67). Yet his arguments are only aimed against the functional aspect of the urban theory: the *oppida* as production and trade centres. First, he argues against the role as production centre. He states that the Czech *oppida* are not located in the richest areas of raw materials (Cumberpatch 1995: 74). This may indeed indicate that exploitation was not the core instigation for *oppidum* foundation. He also claims that production was not more intensive or at a larger scale than on open settlements, and that production was essentially local (Cumberpatch 1995: 74-75, 82). Therefore Cumberpatch (1995: 83) concludes that production was not centralised at the *oppida*. And production was not the only economic activity of *oppida* as they had a substantial agricultural component (Cumberpatch 1995: 69). In addition,

Cumberpatch contests the role of *oppida* as trade centres. He argues that coins appear well before *oppida* (Cumberpatch 1995: 76) and that the *oppida* in Bohemia and Moravia remained relatively isolated from the wave of Mediterranean goods (Cumberpatch 1995: 80).

In summary, Cumberpatch does not believe that *oppida* played a central role in the production and circulation of goods. Cumberpatch (1995: 81) states that their precise position in relation to other types of economic centres is more problematic than has been generally acknowledged. We should stop thinking that the *oppida* are the dominant elements in the geographical and economic landscape. On the contrary, according to Cumberpatch (1995: 68) the majority of people lived in farmsteads, hamlets and small villages. Cumberpatch' viewpoints are clearly based on the particularity of the Bohemian *oppida*. Yet, his statements advise us not to overemphasise the economic role of the *oppida*.

Haselgrove (1995: 87) also puts the current emphasis on *oppida* into perspective. He states that the late Iron Age changes do not constitute a decisive break. They are rather a phase in the evolution of the essentially discontinuous and unstable society. He argues that the *oppida* only stand out because of changes, such as coinage and Mediterranean contacts, which are not related to the *oppida* (Haselgrove 1995: 83-86). Haselgrove also argues against the role of Mediterranean trade as a factor for *oppida* formation. He states that there is a false degree of coherence between Roman imports and other processes at work in contemporary Europe. The role of the Roman world is overstated (Haselgrove 1995: 82, 87). This is a rather interesting viewpoint because Mediterranean trade is generally seen as a predominant feature in the *oppidum* period. I also retain that *oppida* should be examined as part of a long-term development.

Salač is more extreme and suggests in his article that '*the oppida in Bohemia (were) a wrong step in urbanization*' (Salač 2000). He states that *oppida* are an economically erroneous attempt to create urban settlements. They are all situated in relatively inconvenient places, never inhabited before or after, on hilltops far from the agricultural land and probably far from communication routes (Salač 2000: 152-153). As a result they became "the weakest link of the La Tène culture" (Salač 2000: 155). He states that the *oppida* were not self-sufficient in food production and that this caused the economy to breakdown when the population of the *oppida* increased. For this reason the *oppida* had to be abandoned when long-distance trade declined in importance (Salač 2000: 154-155). Salač does not restrict this theory to the

Bohemian situation as he suggests that unsuitable locations may be found throughout Europe, even at Bibracte (Salač 2000: 155). This is a rather radical vision, which is still based on assumptions of urbanism, the dichotomy urban-agricultural, and the dependence on long-distance trade.

Lorenz and Gerdson (2004¹: 138) studied the *oppidum* of Manching, which is considered the prototype of the urban *oppidum* (e.g. Filip 1981: 186). Yet, he states that Manching was not an urban centre (Lorenz and Gerdson 2004: 165). He argues that Manching only had a small population, that iron working preceded the *oppidum* and that there is no clear evidence for an urban lay-out or any settlement planning (Lorenz and Gerdson 2004: 130, 132, 137). Again the presumed lack of traditional urban features is used against the urbanism of *oppida*.

Synthesis: Alternative views

Cumberpatch (1995: 84) states that separating economic practices from social practices leads to misunderstanding the nature of the economy. He states that the emergence of *oppida* –and *Viereckschanzen*– are an aspect of a major change in ritual activity: the evolution to enclosing land. This evolution symbolises the change of focus from the individual to the communal and anonymous. Concerning the common assumptions on social hierarchy, Cumberpatch (1995: 68, 74) sees the farmsteads² as the spatial counterpart of a basic social unit, the extended family (Cumberpatch 1995: 74). Contrary to most scholars he does not link the farmsteads with some kind of elite. In conclusion, Cumberpatch emancipates the interpretation of Iron Age society from the burden of dominant economic and hierarchical viewpoints.

Haselgrove (1995: 82) aptly states that the taxonomic model urban–non-urban is too restrictive. Concerning the function of *oppida*, Haselgrove (1995: 83) does not consider the *oppida* as political centres in the region. He states that *oppida* fulfilled many of the same roles as sanctuaries because they usually contain cult places and meeting places for peoples living over a larger area (Haselgrove 2007: 501). They recall enclosures which yielded remains of larger-scale feasting and/or sacrificial offering (Haselgrove 2007: 501). The enclosures were not necessarily only ritual. They were constructed due to agricultural concerns such as stock

1. The year 2004 might be misleading. Lorenz developed this theory long ago but he died in the 1980s, decades before the publication of his work.

2. The concept 'farmstead' will be largely discussed in chapter 3.

management, land drainage etc. (Haselgrove 2007: 503). He also incorporates the emergence of the *oppidum* in the general increased tendency of building enclosures and sanctuaries (Haselgrove 1995: 84; 2007: 496, 500). He rejects centrality or dominance of the *oppida*. Haselgrove (2007: 508) states that *oppida* are not the top of a settlement hierarchy. Their emergence would rather reflect the increased instability of rural sites. Haselgrove offers a different viewpoint on *oppida*. This is very useful because every research subject should be looked at from different angles. Studies on *oppida* were too caught up in economic and political theories. However, it would be wrong to deny any political significance to a meeting place with communal building activity and ritual significance.

Lorenz and Gerdsen (2004: 165) offer a rather surprising alternative view. He states that Manching was an enlarged *Fürstensitze* or princely seat with central place functions, just like the La Tène A hillforts (Lorenz and Gerdsen 2004: 165) It is not clear where he got the evidence for these central place functions and the presence of an elite. Maybe this is merely meant to be a statement. Lorenz's theory has not been followed by other scholars.

Conclusion

The interpretation of the *oppida* has evolved over time. In the 1980s the *oppidum* received the status of urban settlement with central place functions. Around the 1990s those theories got criticised and opposed. The examination of the main viewpoints revealed that the arguments pro or contra urban *oppida* are restricted to the presence or absence of recurrent features. I will refer to them as 'traditional urban features'. Formally the traditional urban features consist of a large size, a considerable permanent population and an urban lay-out which includes settlement planning, ramparts, public buildings, public amenities, public places, and functional zoning. These formal features are unanimously adopted. Functionally the traditional urban features comprise a role as political or at least as economic centre. The interpretation of 'centre' varies widely. These functional features are highly debatable.

Woolf (1993: 227) aptly remarks that the traditional urban features reflect a search for familiar features of classical cities and medieval towns. Some scholars acknowledge this unreservedly. Collis (1984a: 136) states that *oppida* conform a pattern of layout of the classical Mediterranean towns. Brun (1995a: 16) adds that the settlement type is adopted from the Mediterranean. Buchsenschutz (1998: 61; 2004: 346-8) doubts about the urbanism of

oppida because the lack of traditional urban features makes the *oppida* “different from the Mediterranean”. In the next chapter I will examine the validity of the traditional urban features and the comparison between *oppida* and Mediterranean cities. I aim to reveal the origins of the belief in these features and to check if they were actually present at Mediterranean towns. In the case-studies I will verify their presence at *oppidum* sites.

The debate on the urbanism of *oppida* is also hampered by the pivotal role of commonplace concepts that are not sufficiently specified: urbanism, central place and elite. The lack of clarification of these concepts leads to a debate at different wavelengths that is not constructive. In the next chapter I will analyse these common concepts. I aim to understand these concepts and to question their validity. Haselgrove (1995: 82) aptly states that the taxonomic model urban–non-urban is too restrictive. I intend to develop an alternative interpretation of *oppida* that is released from the burden of inherited notions which predominate and direct one's mode of thought.

3. Conclusion

The definition of *oppidum* is closely entangled with its debated interpretation as urban settlement. On the one hand, the definition of *oppida* includes criteria that are in fact also identified as 'traditional urban features': ramparts, a large size and dense population, an urban lay-out, and production and trade activity, whether or not as a centre. On the other hand, the debate on the urban interpretation of *oppida* is based on features that are supposed to be present (or not) on *oppida*. This way definition and interpretation constitute a circular argument. Furthermore the interpretation of *oppida* is also saturated with modern assumptions: urbanism, central place and elite. I aim to disentangle all these aspects in order to start my research on *oppida* on a clear basis.

In the case-studies I will examine three established *oppidum* sites that have ramparts and fall into the accepted chronological and geographical boundaries. I will select sites that vary in location and size in order to reveal the individual character of *oppidum* sites. At each site I will check the presence of the common *oppidum* criteria and the traditional urban features. It aims to test their validity and their significance at each site. Last but not least I will also examine additional, context-specific characteristics of the sites. This is crucial to understand

the individuality of each site and to reveal the existing aspects of *oppida* instead of the assumed ones.

In the next chapter I will analyse the common concepts that are central to the current interpretation of *oppida*: urbanism, central place and elite. They are fundamental to the present debate that is the starting point for my research. I aim to dismantle these concepts: to understand them, to examine their validity and to retain the aspects that suit the archaeological reality.

Collis states “every new generation tends to caricature the failings of the previous, and then to reject its approaches in totality” (Collis 2007: 524). This is not what I intend to do. My aim is not to reject the work of previous studies, but to build on them. I aim to find a new approach that is liberated from blurred and loaded concepts, that is based on previous studies and on the independent research of archaeological sites.

Chapter 2: Whence the current interpretations on *oppida*?

Analysing the account of Caesar, the concepts urbanism, central place and social hierarchy.

To be or not to be a city. This question has been the topic of debates for many years. The debates are profound and interesting but not very constructive. At certain times it seems the proverbial tower of Babel on various levels. The core problem is the lack of any consensus on terminology to be used. First, the archaeological concept *oppidum* itself is mainly based on Caesar's account of the Gallic places he called *oppida*. Yet no clear understanding about what the actual word meant to Caesar and his contemporaries has been agreed upon. Second, the concept of urbanism is fluid and not defined by common consent. It is linked to the concept of central place, a term that is used without further explanation despite the fact that it can be understood in various different ways. This has led to a wide variety of personal interpretations of urbanism and -as a result- to different opinions about the urbanism found in *oppida*. Third, our view on ancient urbanism is dominated by the assumed model of the Mediterranean city, and its formal and functional features. Despite the traditionally alleged homogeneity, these features of Mediterranean cities are also debated currently. Finally, the *oppidum*'s society is usually thought to be hierarchical and led by an elite. But the concept of this elite and the nature of the social hierarchy were never clarified.

In this chapter I will focus on the above mentioned problems with terminology and on the current debate. First, I will verify the application of the word *oppidum* by ancient authors, predominantly Caesar, against the current interpretation of the word. Second, I will summarize the existing definitions of urbanism and central place to evaluate the current debate. Third, I will re-evaluate the assumed model of the Mediterranean city and in particular the 'traditional urban features' that are central to the interpretation of *oppida*. In conclusion, I will use an overview of the spectrum of social organisations to put the common hierarchical interpretation into perspective. My aim is to remove persistent and dominant assumptions in order to reinterpret ancient sites, *in casu oppida*.

1. Definition of ‘*oppidum*’

The *oppidum* is a modern archaeological concept. Yet originally *oppidum* is a Latin word. When Julius Caesar wrote about *oppida* in his ‘*de bello Gallico*’ (Gallic Wars) he would never have imagined that some 1900 years later archaeologists would start a quest for these sites, and as a result, that he founded an archaeological category. Caesar referred to some Gallic settlements as *oppida*. This way he transferred a Latin word into a context which was not Roman, which was unfamiliar to him. In the 19th century AD archaeologists started to associate a particular kind of archaeological sites with Caesar’s word *oppidum*. Archaeological finds were grafted onto the historical accounts. Hence the archaeological category was born. In sum, *oppidum* is a Roman word which was applied by Romans to some non-Roman settlements and which is now the name for a category of specific pre-Roman settlement remains.

But what did the ancient authors, especially Caesar, actually mean by ‘*oppidum*’? Do archaeologists and Caesar have the same concept in mind when they use the word? In this section I will examine the ancient concept. I will explore the meaning of the word *oppidum*, its origins and its use by ancient authors. Two principal challenges can be discerned and deserve special attention: the physical variety within the category called *oppidum*, especially their fortifications, and the relationship between the terms *oppidum* and *urbs*, which means city.

1. The origins of the word

There are two main explanations for the origin of the word *oppidum*. It might have its origins in *quod ob pedes est*, what means barricade or physical obstruction. It was used for the *canceres* in the circus (Volkman 1979: 316). This might indicate that the word *oppidum* referred to a defensive function, to the fortification.

On the other hand, *oppidum* may descend from ‘*ops*’ or its plural ‘*opes*’. This explanation is acknowledged by the ancient etymologists (Tarpin 2000: 28). The word *ops/opes* has various meanings. The Oxford Latin Dictionary (Glare 1968-1982) provides the following translations:

1. (singular/plural) power, ability, specifically: military strength, forces, troops
2. (plural) power exercised over others, domination, influence
3. (plural) resources (economically, military etc), the means that one has at one's disposal for a purpose; (sing) a means for doing something, resource, expedient
4. (plural) financial resources, wealth, property, produce regarded as wealth
5. (mostly singular) resources given to others, aid, assistance

It becomes apparent that the word *ops* can be read in different ways: from power and military strength to mere economic resources. One's interpretation of *ops* affects one's interpretation of *oppidum* and *vice versa*. On the other hand it shows the rich spectrum of meanings this concept has. The various meanings should not exclude one another. In fact they can often be related and integrated.

Tarpin (2000: 30 footnotes 11 and 18) adds a list of the ancient etymologists. This list is analogous to the record in the Thesaurus Lingua Latina (Pöschl 1980: 754-759). I will quote the etymologists³ here chronologically, with a translation and a short background account.

- Varro (De lingua Latina 5, 141): “*Et oppidum ab opi dictum, quod munitur opis causa, ubi sint et quod opus est ad vitam gerendam ubi habeant tuto. Oppidum quod operi muniebat, moenia.*” “*Oppidum* is also named from *ops* because it is fortified for *ops* as a place where the people may be, and because for spending their lives there is a need of place where they may be safe. *Moenia* (walls) were so named because they *muniebant* (fortified) the *oppidum* with *opus* ((earth)work).” (translated by Kent 1938) Varro was a Roman equestrian officer who wrote this work in 47-45 BC (Kent 1938: VII-IX).
- Pomponius (Dig 50, 16, 239, 7): “*oppidum ab ope dicitur, quod eius rei causa moenia sint constituta.*” “*Oppidum* is named from *ops* because walls were built for this cause.” Pomponius was a lawyer who lived in the 2nd century AD (Végh 1979: 1039).

3. I have omitted Isidorus of Seville because he is not really an ‘ancient author’. Isidorus was the bishop of the church of Seville, Spain, in the Late Antique (6th century AD) (Brehaut 1964: 23).

- Festus (p. 201 L, 184 M, 207 Th): “*oppidum dictum, quod opem praebet.*” “It is called *oppidum* because it provides *ops*”. Festus (p. 222 L, 203 M, 242 Th): “*oppidorum originem optime refert Cicero lib. I de Gloria, eamque appellationem usurpatione[m] appellatam esse existimat, quod opem darent, adiciens.*” “Cicero explains the origin of *oppidum* very well in book 1 of his work on *Gloria*. He believes that they are so called because they provide *ops*.” Festus was a grammarian of the 2nd century AD (Schmidt 1979: 541).
- Servius (Aeneis 9, 605): “*oppidum quidam a vico castelloque magnitudine secernunt; alii locum muro fossave aliave munitione conclusum; alii locum aedificiis constitutum, ubi fanum, comitium, forum et murus sit; oppidum dici ab oppositione murorum, vel quod hominibus locus esset opletus vel quod opes illo munitioni gratia congestae sunt.*” “Some distinguish an *oppidum* from a *vicus* (village) or *castellum* because of its *magnitude* (size, significance). For some it is a place defined by a wall or a ditch or other defences. For some it is a place laid out with buildings where there is a temple, a *comitium* (part of the *forum* where the people’s assembly takes place), a *forum* and a wall. An *oppidum* is so named by the opposition of the walls, or because it is a rich place for people, or because *opes* are gathered there because of its defences.” Servius was a grammarian and lived in the 4th century AD (Gugel 1979: 145).

All ancient etymologists seem to agree about the *ops*-origin of *oppidum*. They might be copying each other or another source, but it would go too far to make a critical in-depth analysis here. The etymologists also add a glimpse of their view on *oppida*; they mention –in order of frequency- walls, gathering activity and specific buildings.

2. Is an *oppidum* a fortified site?

Three out of four etymologists mention walls. Therefore Volkmann (1979: 316) states that there is strong emphasis on the fortifications. He argues that Caesar used the word *oppidum* to translate the Gallic word ‘*dunum*’ which means fortified refuge. Volkmann refers to Caesar who wrote that “the Britons call it an *oppidum* when they have fortified a thick-set woodland

with rampart and trench, and thither it is their custom to collect, to avoid a hostile inroad”⁴ (DBG 5.21; translation by Edwards 1917). On many other occasions Caesar mentions that an *oppidum* was well secured by fortifications and often by natural strength (e.g. Avaricum DBG 7.15). Caesar seems to be impressed by the fortifications. He reports that the *oppidum* of Noviodunum (DBG 2.12) had a ditch that wide and a wall that high that he could not take the *oppidum* although there were only few men to defend it. Caesar also gives detailed descriptions of ramparts (DBG 2.29, DBG 7.46). We get the impression that *oppida* were always fortified.

On the other hand, it might be only logical that Caesar observes fortifications since he mostly arrived at the *oppida* in times of war or turbulence. For instance, Caesar mentions that the Veneti fortified their *oppida* when they heard he was approaching (DBG 3.9)⁵. However, unfortified *oppida* did exist. Caesar (DBG 7.14)⁶ mentions that the Gauls burned down the *oppida* “which were not protected by fortification or natural location”. Caesar (DBG I.6-7; translation by Edwards 1917) also calls Geneva an *oppidum*, even though it was a large unfortified site (Fichtl 2000: 16). Fichtl (2000: 13-15) adds that Caesar even referred to small villages as *oppida*. This he concludes from the discrepancy between the large numbers of *oppida* quoted by Caesar and the archaeological reality. It is a rather frail argument given the fortuity of archaeological discoveries. Tarpin (2000: 28, note 16) confirms the account of unfortified *oppida* in other ancient texts. He refers to Lucanus and Livius. Lucanus (Bellum civile 4, 224) wrote that “*oppida* would not be fortified with walls... if it were ever right to barter freedom for peace”⁷ (translated by Duff). Lucanus’ information might be doubted as his work is an epic poem. Livy (Ab urbe condita 22.11.4) wrote: “He also issued that those who dwelt in unfortified *oppida* and *castella* should remove to places of safety”⁸. (translated by Foster 1919).

4. *Oppidum autem Britanni vocant, cum silvas impeditas vallo atque fossa munierunt, quo incursionis hostium vitandae causa convenire consuerunt* (Caesar DBG 5.21).

5. *Veneti reliquaeque item civitates cognito Caesaris adventu ... His initis consiliis oppida muniunt, frumenta ex agris in oppida comportant ...* (Caesar DBG 3.9)

6. Caesar DBG 7.14: *Praeterea oppida incendi oportere, quae non munitione et loci natura ab omni sint periculo tuta.*

7. Lucanus BC 4,224: *Eruerunt, nulli vallarent oppida muri ... si bene libertas umquam pro pace daretur.*

8. Livius AUC 22.11.4: *Editioque proposito ut quibus oppida castellaque immunata essent, uti commigrarent in loca tuta.*

In conclusion, the ramparts are a significant and impressive element of *oppida*. Nevertheless it does become evident from the review of the ancient authors above that not every *oppidum* had ramparts.

3. Is an *oppidum* an urban settlement?

The etymologist Varro depicts an *oppidum* as a place where people spend their lives and Servius even mentions the occurrence of a temple, *comitium* and forum (previous pages). From the description by these authors you can conclude that the *oppidum* appears to be a settlement with some urban-like features. Moreover, Caesar calls some *oppida* also *urbs*. *Urbs* is the Latin word that means city and Rome in particular. This brings about the question whether *oppidum* means the same as *urbs*, or in other words whether the *oppidum* was considered to be a city.

Tarpin (2000: 27) supports the idea that the two words are interchangeable, except for the city of Rome. Both *oppidum* and *urbs*, he argues, were generated in the old era and the scholars at the end of the Roman republic did not remember their origins and the difference between them. Indeed it seems that Livy, for instance, had difficulties finding a precise word. The site Clastidium he first described as *vicus*, village (AUC 21, 48) and later as *oppidum* (AUC 32, 29) (Fichtl 2000: 16).

Fichtl (2000: 12) has a different explanation. He concluded that Caesar used the word *urbs* in a later phase, namely from 52 BC onwards, and assumes an evolution, if not in European *oppidum*'s urbanism, than surely in Caesar's opinion about *oppida*. His explanation might be based on the fact that the *oppidum*-and-*urbs* sites all figure in chapter seven. However, the terminology 'later phase' is dubious since the great majority of all *oppida* appear in this chapter and all seven chapters are written in 52-51 BC. That is not exactly a large period of time to detect an evolution.

Rodwell (1976: 288) argues for a strict distinction between *oppidum* and *urbs*. He states that an *oppidum* might have been no more than a large fortified area, whereas *urbs* involved a socio-economic centre. Rodwell's idea appeals to me but I would make a subtle amendment. The words *urbs* and *oppidum* may not be used to indicate different settlement types but to

indicate different features of the same settlement viewed from a different angle. Depending on which aspects of a settlement Caesar focuses on in the context of his story, he calls the site either *oppidum* or *urbs*. The best way to test this hypothesis is by examining the sites in question. The three sites that are called *oppida* and *urbs* by Caesar are: Avaricum, Alesia and Gergovia. I will summarise the relevant information here. The associated quotations are listed in appendix 1 and the relevant information is written below.

The information on Avaricum is challenging. In the description of this site the word *oppidum* is used in a rather military context of size, significance, fortification, supplies and a Roman camp on the site. The word *urbs* appears only when its aesthetic beauty is portrayed: “almost the fairest *urbs* in all Gaul, the safeguard and the ornament of their *civitas*” (DBG 7.15; translation by Edwards 1917)⁹. However, in the accounts on Alesia and Gergovia, on the contrary, there is no such apparent distinction. Both terms rather seem to be interchangeable. Gergovia is called *oppidum* in the discussion about its location and camp, and it is called *urbs* in the account on its defensive position and a cavalry fight. Moreover the two terms appear in one and the same chapter (DBG 7.36). Alesia is called *oppidum* when its strategic location and view were described and *urbs* in the account on camps. Both words figure again in the same chapter (DBG 7.68). Additionally, a large number Biturigi *oppida*, twenty in total, are also called *urbes*: in his account of the decision to burn them down Caesar shifts from *oppidum* to *urbs* (DBG 7.14-15).

If the term *urbs* does not focus on a specific feature of the settlement, why are exactly those three sites called *urbs*? One might argue they are all places where significant and vigorous battles were fought. But then again, fighting took place at other *oppida*. Maybe Caesar just thought that the term city would make the Roman senate more eager to honour his exploits, especially after long and demanding sieges. It may be significant that the three *oppida* are only called *urbs* in book seven in which Caesar records the great revolt of the Gauls against Roman domination (Edwards 1917: XI). It might seem to confirm Tarpin’s theory on the interchangeability of the words, at least for the situation in Gaul.

Volkman (1979: 316-317) adds that the use of the term *oppidum* itself is generally ambiguous and might have confused many ancient authors. On the one hand it had a very

⁹ Caesar DBG 7.15: *pulcherrissima prope totius Galliae urbem, quae praesidio et ornamento sit civitati.*

well-defined meaning. In the lex Rubria of 149 BC, for instance, it was one of the specific legal concepts: *oppidum*, *municipium*, *colonia*, *praefectura*, *forum* and *vicus*. On the other hand, *oppidum* became a popular term to indicate every town-like settlement, irrespective of its legal status. For instance, Pliny discerns five well-defined groups of *oppida*: 1) *oppida civium Romanorum* (*oppida* of Roman citizens); 2) *oppida Latinorum* (*oppida* of the Latini); 3) *oppida libera* (free *oppida*); 4) *oppida foederata* (allied *oppida*); 5) *oppida stipendiaria* (tributary *oppida*) when he applies the imperial statistics of Agrippa and Augustus. However, in his chapters on geography he uses the word *oppidum* at random for all kinds of towns and forts (Volkman 1979: 316-317).

It is not clear whether *urbs* and *oppidum* are interchangeable or whether they allude to different aspects of the same site. The meaning and use of the Latin word *oppidum* and its evolution through time and space are interesting issues to be studied. Yet, they are beyond the scope of my dissertation. I will restrict myself to examine the context in which Caesar mentions *oppida* in Gaul.

4. Caesar's *oppida*: gathering place of human and natural resources?

'*De Bello Gallico*' is the recording by General Julius Caesar of his wars in Gaul in 58-51 BC. He probably wrote the first seven books in 52-51 BC and published them early in 51 BC (Edwards 1917: XV). Caesar is an eye-witness of the Gallic *oppida* and their society in the first century BC, at the moment of their 'clash' with Rome. Therefore his recordings are a valuable and rich source. But his report was designed to justify his campaigns in Gaul and to account for his actions before the Roman senate. Therefore the content is subjective and might very well be highly biased. Caesar's account is a goldmine for the historical context of *oppida* in Gaul, but a goldmine that should be treated with some caution.

Fichtl (2005: 13) made a survey of the *oppida* which Caesar mentioned by name:

Ancient name	<i>Civitas</i>	Identification	Nomination by Caesar	Reference in DBG
Agedincum	Senones	Sens		4.44, 7.10, 57, 59, 62
Alesia	Mandubii	Alise-Ste-Reine	<i>urbs, oppidum</i>	7.68-10, 75-80, 84, 8.14, 34
Atuatuca	Eburones		<i>castellum</i>	7.32, 35
Avaricum	Bituriges	Bourges	<i>urbs, oppidum</i>	7.13-18, 29-32, 47, 52
Bibracte	Aedui	Mont-Beuvray	<i>oppidum</i>	1.23, 7.55, 63, 90, 8.2, 4
Bibrax	Remi	Saint-Thomas	<i>oppidum</i>	2.6

Bratuspantium	Bellovaci		<i>oppidum</i>	2.13
Cavillonum	Aedui	Châlon/Saône	<i>oppidum</i>	7.42, 90
Cenabum	Carnutes	Orléans	<i>oppidum</i>	7.3, 11, 14, 17, 28, 8.5, 6
Decetia	Aedui	Decize		7.33
Durocortorum	Remi	Reims		6.44
Genava	Allobroges	Genève	<i>oppidum</i>	1.6, 7
Gergovia	Arverni	Gergovie	<i>urbs, oppidum</i>	7.34, 36-38, 40-43, 45, 59
Gorgobina	Boii		<i>oppidum</i>	7.9
Lemonum	Pictones		<i>oppidum</i>	8.26
Lutetia	Parisii	Paris	<i>oppidum</i>	6.3, 7.57, 58
Matisco	Aedui	Mâcon		7.90
Metlosedum	Senoni	Melun	<i>oppidum</i>	7.58, 60-61
Nemetocenna	Atrebates	Arras		7.90
Noviodunum	Bituriges		<i>oppidum</i>	7.12, 14
Noviodunum	Aedui		<i>oppidum</i>	7.55
Noviodunum	Suessiones	Pommiers?		2.12
Octodurus	Veragri	Martigny	<i>vicus</i>	3.1
Samarobriva	Ambiani	Amiens		5.24, 47, 53
Uxellodunum	Cadurci	Puy d'Issolu	<i>oppidum</i>	8.32, 40
Vellaunodunum	Senoni		<i>oppidum</i>	7.11, 14
Vesontio	Sequani	Besançon	<i>oppidum</i>	1.38, 39
Vienna	Allobroges	Vienne		7.9
-	Aduatuci		<i>oppidum</i>	2.29
-	Sotiati	Sos	<i>oppidum</i>	3.21

Table 1: List of *oppida* named by Caesar in 'De Bello Gallico' (Fichtl 2005: 13)

I will examine Caesar's accounts on these *oppida*. Information on fights and sieges are left out. I focus on the other features which he valued important to mention. What can a General tell us about the sites? He was an eye-witness but observed the *oppida* through Roman and hostile eyes. The *oppida* must all have had some significance to him which can be deduced from his descriptions (cfr. next seven paragraphs).

The location is significant to Caesar. Some *oppida* are near a bridge, as for instance Cenabum (DBG 7.11) and the unfortified Geneva (DBG I, 6-7). Very often Caesar mentions that from the *oppida* one gets a bird's eye view over the surroundings (e.g. Gergovia DBG 7.45). Not only military locations are mentioned in the descriptions. About the *oppidum* Avaricum, for instance, he writes that it is located in a fertile district (DBG 7.13).

Caesar mostly regards the *oppida* as important places for military use. This does not imply that he meant that *oppida* were used for military purposes only. Many times he camped near an *oppidum*, for instance Bibrax (DBG 2.6). In Cenabum Caesar even garrisoned part of his troops in the dwellings of the inhabitants. The other part camped in huts built on to these dwellings (DBG 8.5).

In many instances an *oppidum* is presented as the largest settlement of the *civitas* (Bibracte DBG 1.23; Vesontio DBG I.38, Avaricum DBG 7.13). A significant contribution may be DBG 8.5¹⁰: “When report of the army reached the enemy, the influence of the disaster which had befallen the rest made itself felt. The Carnutes forsook the *vici* (villages) and the *oppida* - in which they were living for protection against the winter, it means buildings erected hastily to meet their need, for after their recent defeat they had abandoned many of their *oppida* - and fled in all directions” (translation by Edwards 1917). If Caesar may be given credence to, here he shows that an *oppidum* was a place where people lived temporarily, in times of winter or danger.

Caesar mentions that the *oppida* were able to gather large amounts of people and to store ample goods (e.g. Bratuspantium in DBG 2.13). In Vellaunodunum no less than 600 hostages were taken by Caesar (DBG 7.11). In Avaricum there were at least 40,000 men, women and children at the time of the siege (DBG 7.28). Of course, these numbers have to be put into perspective. Caesar might have exaggerated to magnify his own exploits and to impress the senate.

Another recurrent feature in Caesar’s report is the fact that *oppida* had provision and supplies, especially a corn supply which was crucial for Caesar’s army (e.g. Bibracte in DBG I.23 and Vesontio in DBG I.39). Caesar often stationed his men in an *oppidum* to secure the corn-supply, for instance in Cabillonum and Matisco (DBG 7.90). In Cenabum even a Roman *equites* was established who was put in charge of the corn-supply (DBG 7.3).

¹⁰ Caesar DBG 8.5: *Cum fama exercitus ad hostes esset perlata, calamitate ceterorum ducti Carnutes desertis vicis oppidisque, quae tolerandae hiemis causa constitutis repente exiguis ad necessitatem aedificiis incolebant (nuper enim devicti complura oppida dimiserant) dispersi profugiunt.*

Roman citizens, unconnected to the army, were also established at *oppida* for trading purposes, for instance in Cenabum (DBG 7.3) and in Gergovia (DBG VII.42). Caesar even wrote that Cenabum had a *forum* (DBG 7.28)

Political activities were also documented at several *oppida*. Caesar recorded assemblies he referred to as *concilia*. The *concilium Galliae* (assembly of Gaul) gathered at Lutetia (DBG 6.3) and the *totius Galliae concilium* (assembly of whole Gaul) at Bibracte (DBG 7.63). Caesar also administered justice at Bibracte (DBG 8.4: “*ibi cum ius diceret*”). Furthermore he summoned the whole senate of the Aedui to Decetia to solve a political quarrel. For this occasion almost the whole *civitas* assembled there (DBG 7.33). Caesar reckons that *oppida* had political power and influence. He states that the *oppidum* Avaricum had so much influence that by taking the *oppidum* he would bring the *civitas* of the Bituriges into his power again (DBG 7.13). Concerning Bibracte he even uses the word authority (DBG 7.55: “*oppidum apud eos maximae auctoritatis*”).

The way one interprets Caesar’s word *oppidum* is strikingly parallel to, and thus influenced by one’s interpretation of the archaeological concept *oppidum*. Fichtl (2000: 12-13) concludes from Caesar’s account that the *oppida* were places of exchange where his army found food supplies and places where important decisions were taken. That seems a fairly objective summary but then he concludes that *oppida* were the most important sites in the Gallic settlement hierarchy. The concept of the settlement hierarchy *oppida – vici – aedificia* is assumed by many scholars (e.g. Collis 1984a: 5) but it should not be taken for granted. Tarpin (2000: 29) considers *oppida* to be the manifestation of power, the ability of defence and the accumulation of resources. These are rather general features, but then he assumes that the *oppidum* was the city where the seat of power was, where grain was kept, where justice was administered, where people and goods were registered. These features reflect a very modern concept of centralisation and we have to be very clear what is meant by a seat of power and registration.

In conclusion, according to Caesar's accounts an *oppidum* may have the capacity to contain a large amount of people and goods, for instance grain, to host a military camp inside its borders, to attract foreign traders, and to be the location for political meetings and decision making activities.

5. Conclusion

From the origins and use of the word *oppidum*, and especially from Caesar's first-hand information, I conclude –carefully at this stage- that an *oppidum* might essentially be a settlement and gathering place. Settlement was not always the permanent dwelling for all inhabitants. People might have come to live at an *oppidum*, for instance, in wintertime or at times of danger. Equally or more significant might have been its function as gathering place for communal events such as jurisdiction, political assemblies, religious festivals and economic markets. The gathering of resources is logical and comes with the settlement and the communal gatherings, but it does not necessarily imply that the *oppidum* was a centre of redistribution. The ramparts probably served to protect inhabitants and eventual resources, and to symbolise the communal significance of the *oppidum*.

2. Definition of urbanism and city

The words urbanism and city are central to the current debate on the interpretation of *oppida*. The words are used recurrently, without any uniformity or explanation. It is not clear what each participant to the debate actually means by using the terms. Moreover, I doubt if these modern terms are accurate enough to be used for a pre-Roman site. This section aims to understand the meaning of the keywords urbanism and city, and to question their accuracy in the context of *oppida*. In the following section I will analyse the main modern definitions of urbanism and the main theories on preindustrial cities. First I will survey the modern definitions by social geography and urban sociology. Then I will review the theories of Sjoberg on the pre-industrial city in general, of Langton on the 16th-17th century city, and of Vance on the medieval city. Last but not least I will analyse the definition of the ancient city by Classical historians, more specifically by Childe and Gates.

1. Social geography: the definition of a city

Vanneste (1994) wrote a manual in social geography and history. In this publication she presents a comprehensive definition for the idiom city. Formally, a city has a city community (monuments, institutions) and often city walls. Functionally, a city is a non-agrarian settlement with some commercial activity, opposed to the countryside. However, as Vanneste

observes, these definitions are rather medieval European concepts of a city. None of these types of definition, formal or functional, are valuable for generalisation, let alone for application to ancient times.

Vanneste (1994) also advanced Christaller's four criteria for urbanism:

1. concentration of population
2. heterogeneous population
3. density of buildings
4. multifunctional and large area of influence

This definition focuses on the population and its buildings. It includes a valuable social element. The criteria are clear, but at the same time extremely broad and open. They are as fluid as the concept itself. In consequence these criteria may not be specific enough to distinguish a city from another settlement. What integer has to be reached to call a population dense? How can an area of influence be determined and delineated? How many functions are required to be considered multifunctional? The definition is hard to reject because of its generality, but at the same time it is not adequate to make a differentiation between sites because of its generality.

Vanneste (1994: 22) acknowledges that it is hard to define 'city' in a clear and satisfactory manner. First of all 'city' is a dynamic concept that changes over time. Second, the factors that determine city growth, whether morphological, demographic, economic or legal are ambiguous themselves. Finally, the very specific regional, national and even international circumstances have a strong influence on the evolution of a city. These comments are very beneficial to the discussion. They acknowledge that a city is ambiguous, specific and dynamic. The ambiguity of a city reveals that a debate on urbanism is not constructive unless every participant explains his perception of city. The fact that a city is specific and dynamic shows that every city has its unique features. There is no well-defined measure to check whether sites are urban or not. The same is true for the *oppida*. One should not try to fit *oppida* into existing static concepts, but rather look at its specific and dynamic reality. In my review of the *oppida* I will adhere to this approach.

2. Urban sociology: the definition of a city

Urban sociologists have a different view of cities. In his elementary book on urban sociology Dickens (1990: 45) mentioned that: “a city is a relatively large, dense and permanent settlement of socially heterogeneous individuals”. The sociological definition does not mention functions or specific buildings but instead it emphasises the social aspect and the coherence between people. It is a valuable viewpoint because it adds another dimension that is almost complementary to the rather formal and functional definitions of urbanism in other sciences. The focus on the inhabitants might express the ancient view on cities more than any other definition. For instance, Greek authors referred to the city of Athens by using the word ‘Athenians’, the inhabitants of the city (Section 3).

3. Sjoberg: the preindustrial city

Sjoberg studied the city from the time before the industrial revolution (Sjoberg 1960: V). He does not confine his study to a particular region or period in time. He states that ‘preindustrial cities everywhere display strikingly similar social and ecological structures, not necessarily in specific cultural content, but certainly in basic form.’ (Sjoberg 1960: 5). He refers to preindustrial sites in Asia, India, Near East and Latin America.

Sjoberg (1960: 323) argues that the pre-industrial city is divided into districts that are based on the following criteria in order of importance: social class¹¹, occupation, ethnicity and family ties. He states that the elite residences are located in the city centre and that status diminishes outwards. According to Sjoberg (1960: 325-326) a preindustrial city has no economic functions. Its economy was poorly developed and included agricultural activity by the poor inhabitants. Instead, the city has political, administrative, religious and social functions. The city centralised political power, held by its upper class.

Sjoberg's formal model of a city is predominantly class-based. A city is laid out on the basis of social differentiation of the inhabitants. This is a simplified and rigid view of urban lay-out. I am not convinced that this is the accurate way of interpreting urban organisation. The idea that a city has no economic functions is very unusual. Mainly, a city is considered to be

¹¹To Sjoberg (1960: 234) a class is a particular social stratum with rights and duties into which one was born.

essentially the place of production and trade. The vision of Sjoberg *in casu* of a non-economic function of a city is too radical. Yet, the other functions cited in his definition, political, administrative and religious, do overcome the modern dichotomy city-countryside, and he puts the common emphasis on the economic function into perspective.

4. Vance: the guild model

Vance (1971: 101) analyses the medieval city and he asserts that it exemplifies cities in the pre-capitalist period. Vance (1971: 103-105) states that there is no obvious class-based organisation of the city space. He argues for a guild-zoned city. The city is organised in guild districts. The guild districts are occupational areas that cluster the inhabitants who work in the same occupation. They are also areas of orthodoxy because guilds are connected to a particular church. In addition by the nature of the guilds these areas are also connected to political factions. Vance considers the city to be quite egalitarian in social structure and layout. The city is many-centred. There is little morphological contrast except for the few institutional buildings for the guild, the municipality and the church. There is plenty of open space because the inhabitants are primarily cultivators. On the other hand, Vance considers the merchant guild to be the first class and to hold the market borders and the main street. Vance states that the economic function, especially trade, is essential to the city.

Contrary to Sjoberg, Vance emphasises the economic activity of a city. This is a common view on a city's function. Vance's formal model is inspiring because it is not class-based, acknowledges agricultural activity and focuses on occupational differentiation. Vance also puts the common quest for a dominant city centre into perspective. A city has various centres and merchants occupy strategic locations because of occupational concerns rather than because of social dominance.

5. Langton: the occupational-cum-wealth model

Langton (1975: 21) studies the 16th-17th century city, in particular Newcastle, and concludes that it does not confirm the theories of Sjoberg or Vance. According to Langton (1975: 21-22) a city had an occupational-cum-wealth spatial zoning. He states that the merchants are located in that part of the city that best suits their economic purposes and that contains the institutions

that dominate the city. The other regularly patterned districts are occupational. Some of these occupational districts are reinforced; some are countervailed by class zoning. This is due to the fact that the increasing amount of craftsmen may sometimes have weakened and dispensed the occupational zoning.

This model accords with Vance's view on the significance of occupation districts. In addition to Vance's view, Langton does accept that the merchants are linked to the dominant institutions of a city. The model of Langton is valuable because acknowledges the dynamic evolution of cities and human activity.

6. Classical history: definition of the ancient city

The ancient cities in Greece, Rome and Near East have fascinated generations of ancient historians. In his book on ancient cities, Gates (2003) made a suitable effort to define 'the city'. His definition recalls what is recurrent in the majority of publications on the ancient city.

Gates (2003: 2) presents five definitional distinctions:

1. Demographical: a city is defined according to its inhabitants. By their relative population size he classifies city>town>village>hamlet.
2. Geographical: a city is opposed to the countryside. Both are mutually dependent. Gates adds that the first includes administration and protection, the latter resources. This way Gates adds a functional criterion to the city as well.
3. Functional: a city has ritual or ceremonial functions as well as administrative and commercial functions. Gates concludes that a city is at the top of the settlement hierarchy.
4. Social: a city is the product of a socially stratified society. Gates explains that social distinctions (rulers-ruled; rich-poor) emerge once the population has become too numerous to know each other. In addition people get socially differentiated by the specialisation of their occupation.
5. Socio-economic: a city is a unit that supports itself economically and that extends its economic and political influence over an area broader than its immediate territory.

6. Overall: a city is a place that attracts a population. This can happen for economic, geographical, military or ideological reasons (sanctity or choice made by leaders). This is a dynamic element since the actual reasons for growth might change over time.

Gates's definition recalls the modern definitions of a city (section 1): a dense population, the dichotomy of city versus countryside, specific functions and the influence over a wider area. These are indeed typical aspects of our modern cities but they may not be evident in ancient times. Gates' conclusions on social hierarchy and settlement hierarchy are also based on common assumptions. Social differentiation is not coterminous to social hierarchy (see section 5). Gates' dynamic definition of a city attracting a concentration of people is a refreshing and interesting viewpoint.

The definition of Childe (2002: 14-17) is the best known and most influential definition in archaeology and classical history. His definition consists of ten criteria:

1. concentration of relatively dense population
2. a part of the population pursues non-agricultural occupations (craft, trade, administration, priesthood..), while the majority are farmers
3. production of an economic surplus, appropriated by central authority (king, deity)
4. monumental public architecture (temples, tombs, palaces, fortifications, ...)
5. a ruling class of priests, civil and military leaders and officials dedicated to planning and organisation
6. administration and recording (writing and numeral notation)
7. exact and predictive sciences (mathematical and calendrical, e.g. calendar for agricultural operations, weather forecast)
8. conceptualized and sophisticated art
9. dependence on long distance trade for vital materials
10. state organisation based on residence rather than kinship: people of different, mutually complementary functions (peasants, craftsmen, priests and rulers) hold together by some sort of solidarity.

Childe's definition is relatively neutral. Still his famous criteria are often misinterpreted or misused. For instance Gates (2003: 3) referred to Childe's second criterion by "developed

social stratification” and Gates thus implies hierarchy. The tenth criterion Gates called “people of all professions and classes” though Childe did not use the word class. Here again Gates adds social differentiation and even status. Childe did not comment on status and hierarchy. He did not interpret the rulers as members of aristocratic families or as a distinct class.

Even though Childe’s definition seems to be an appropriate and acceptable reproduction of what an ancient city is, it would be wrong to use these exact arguments as strict standards for individual sites. Morgan and Coulton (1997) checked the validity of the physical criteria of Childe for the archaeological identification of a Greek *polis*. They questioned even the most commonly assumed criteria.

Criterion 1: Morgan and Coulton (1997: 91-92) aptly stated that size and density are the most pervasive assumptions about what constitutes a city. Yet, the absolute size is difficult to determine archaeologically. Furthermore, density was not the rule. The urban organisation included open land between individual residential areas, e.g. in Sparta, Corinth, Argos.

Criterion 4: The notion of monumental public architecture has long attracted particular archaeological attraction but public is not coterminous with monumental. The identification of public functions of individual buildings is often problematic and rests on weak criteria. Almost all Greek institutions were accommodated in simple homes before the architecturally complex ones. Furthermore public buildings were lacking until the 6th century BC. Morgan and Coulton (1997: 103-110) conclude that ‘a checklist approach to identify the status of a site simply by the presence or absence of building types is bound to fail’.

Criterion 5: There is nothing to suggest that housing was zoned or differentiated by wealth and status. At Thasos for instance unequal groupings of houses may reflect family interests or the ethnic organisation of settlement or an orientation towards commerce (Morgan and Coulton 1997: 116-117).

Criterion 9: It is not clear if the *polis* had a central trading function. The absence of properly quantified distribution studies makes the degree to which *poleis* controlled the market very hard to assess archaeologically (Morgan and Coulton 1997: 119).

Morgan and Coulton (1997: 124, 128-129) concluded that the answer does not lie in absolute criteria. The status and the physical form of the Classical *polis* were constantly developing. A settlement could pass into and out of the status of *polis* town quite easily. Their conclusions show once again that even the most famous definition is too general and too static to really reflect the specificity of individual ancient cities. Diversity in the attribution of the term city has to be accepted and to be studied. Second even the most commonly accepted features of the very prototype of ancient city, the *polis*, are highly disputable. The common criteria such as trade, population, public buildings and zoning, used to argue in favour or against the urban character of *oppida* are proven to be inadequate.

7. Conclusion

As Finley (1981: 5) aptly said: “Neither geographers nor sociologists nor historians have succeeded in agreeing on a definition. Yet we all know what we mean by the label in general terms.” The main definitions by classical history recall the modern definitions of a city, and none of these definitions are adequate for ancient sites. This is revealed by studies on pre-industrial cities and by testing the classical definition to the ancient city. Especially the dichotomy city-countryside, the hierarchical society and the focus on monumentality and trade are debated. Alternative views accept agricultural activity in the city; some propose a rather egalitarian occupational differentiation and some even deny an economic function. The urban sociology adds a focus on inhabitants to define a city.

This section revealed that 'the city' is an ambiguous, dynamic and individual concept. Therefore a definition should not be too general and static. There is no checklist approach to identify the status of a site simply by the absence or presence of the traditional urban features, although this is what often happened in the debate on urbanism of *oppida* (chapter 1).

I will examine the individual character of each *oppidum* site by context specific analysis (chapter 4-6). I will start from our modern idea of a city and force it on the *oppidum* sites to check whether or not they get the label 'urban' according these criteria. Yet, it is not my aim

to dismiss urbanism as a whole. I intend to examine to what extent the *oppidum* sites relate to our idea of a city and to explore their particular form of urbanism, if any. My aim is to find an alternative interpretation of *oppida* that does not generalise, but that suit the dynamic and specific character of the *oppidum*.

3. Central place theories

The debate on the urban character of *oppida* is closely related to the question whether *oppida* were central places. Collis (1984a) specifies that *oppida* resemble solar central places. Buchsenschutz (1995) states that *oppida* are central places but his arguments recall traditional urban features. Fichtl (2005) states that *oppida* had a central role in a settlement hierarchy. Brun (1995a) argues *oppida* were centres that controlled the territory. Lorenz and Gerdsen (2004) even considers *oppida* as princely seats with central place functions. Opponents use a wide variety of arguments against the central place function of *oppida*. Woolf (1993) argues that production is not restricted to the *oppida*. Cumberpatch (1995) states that the *oppida* had no central political and economic role. Haselgrove (1995) argues that *oppida* were not political centres and he adds that they are not part of a settlement hierarchy.

The terms central place, central function and centre are used recurrently but they are hardly explained. It is not clear what the participants to the debate mean by these terms, apart from Collis. Central place is used to indicate a centre of distribution, or production, or political power, or a combination thereof, and it is often seen as the top of a settlement hierarchy. In this section, I will briefly review the main models of central place systems. I aim to clarify this concept that has a fundamental role in the interpretation of *oppida*.

1. The original central place theory

The original concept is formulated by Christaller and deals with modern market-based capitalist economies (Collis 2009: 2). This concept implies a site hierarchy based on size. The central place is a city or town that dominates a territory with secondary centres, villages and hamlets, which are distributed around the central place at regular intervals (Renfrew and Bahn 2004: 182-183; Figure 1). Potter and King (1995: 21) add that the dwellings were spaced in

nested hexagonal lattices. The central place was the node for collection and distribution of goods.

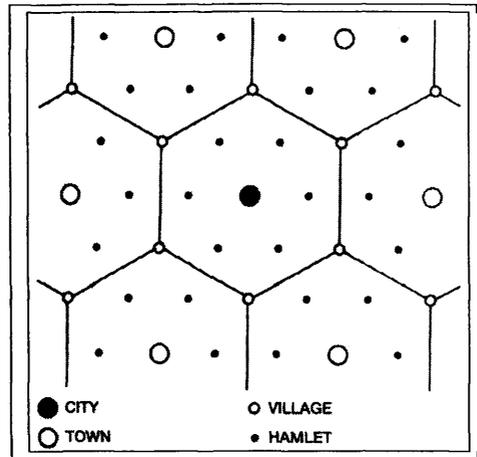


Figure 1: The traditional central place theory (Renfrew and Bahn 2004: 183)

This model is oversimplified. It is based on the assumption that the bigger settlement is the better, that a larger site dominates a smaller one, that size is equivalent with power. In this model there is no room for the dynamics of history and individual agency. Moreover, a competitive economic structure is not proven archaeologically. I agree with Collis (2009: 2) that this capitalist based model may be irrelevant in pre-conquest Iron Age Europe.

2. Alternative models

Smith (1976: 318) considers the central place essentially as a marketplace on which the hinterland depends. Its primary function is to organise and articulate production and exchange among several local systems. Therefore central places are a requirement for and do only occur in commercialised exchange systems (Smith 1976: 314-315, 318). Smith distinguishes three different models of central place systems:

The solar central place (Figure 2c) is an urban centre in the middle of an economically dependent and tributary hinterland. All rural places are connected to only one central place. Each central place has a monopoly as market-centre. It is the economic, administrative and political centre (Smith 1976: 318-319). There are no secondary centres (Collis 2009: 3).

The dendritic central place (Figure 2d) is a major urban centre outside the local agrarian region. It is the price setting market and the end point of a linear, vertical arrangement of markets, linking various levels of hierarchies: from small rural places over collecting points to the urban centre or central place. The dendritic central place system is essentially exploitative (Collis 2009: 3). It is rather a colonial system dominated by an external and economically superior state (Smith 1976: 319-320; Collis 1984a: 182).

The interlocking central place systems (Figure 2e-f) consist of multiple market centres organised by a network of hierarchical relations. Each market centre is linked to several higher level centres and several lower level centres (Smith 1976: 320).

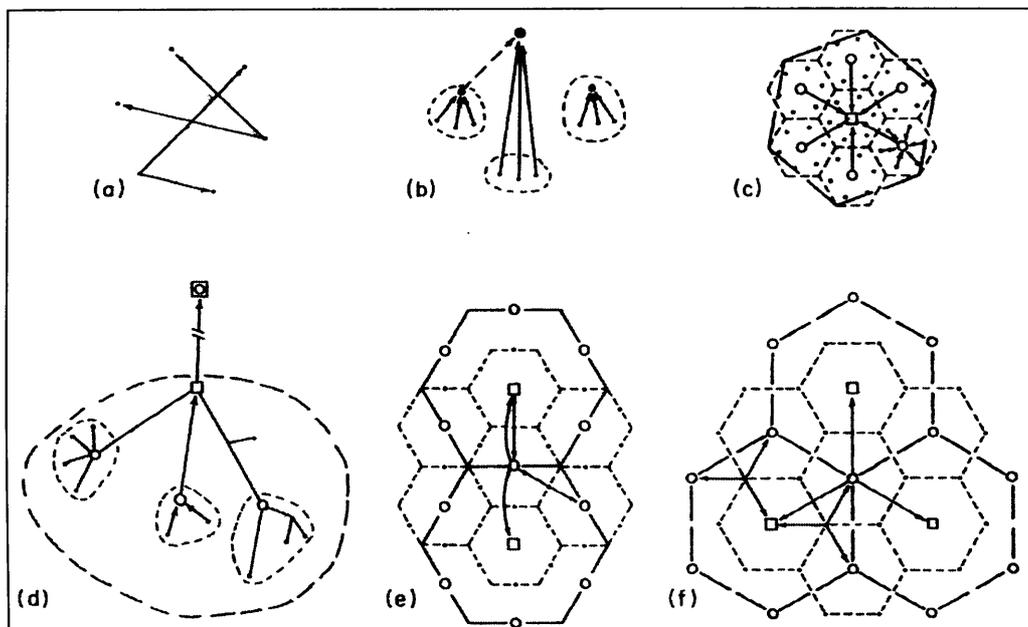


Figure 2: The central place models of Smith (1976: 316). Exchange systems without central places (a-b), the solar central place system (c), the dendritic central place system (d), interlocking central place systems (e-f).

In Smith's models the central place is mainly a system for the distribution of goods. The production of goods does not necessarily happen at a larger scale than elsewhere (Smith 1976: 318). Smith does not expand on the political, social and cultural dimensions of such systems. As a result these interesting theories remain slightly hollow. Economics cannot be understood as a separate aspect, but must be integrated in the complex of human activity and interaction. On the other hand Smith's work is a great contribution as it throws a different light on the central place theory. Collis (1984a: 182; 2009: 3) argues that *oppida* such as Mont Beuvray

and Manching best recall the administered solar system. The dendritic system would not be applicable in the Iron Age. The interlocking system he relates to the Roman world.

Collis (2009: 3) adds an additional model: the tribute model of Vince Steponaitis. The central place is a centre which relies on the payment of tribute collected from minor sites by secondary centres. It is based on the 'least effort' model for moving goods around. The centre would act as a magnet for the secondary centres counterbalanced by the pull of the minor sites. This system is therefore centripetal, in contrast to the centrifugal nature of the models postulated by Christaller. Collis (2009: 4) states that the tribute model could be relevant to the Heuneburg site.

3. Economic and/or political centrality

All central place models (section 1 and 2) are basically economic. Goods from a surrounding area arrive at the central place, whether as collected goods for redistribution (Christaller), as tribute (Steponaitis) or as market goods (Smith). This is an understandable statement, based on the underlying idea that large settlements need additional produce and products from outside. For this reason city and central place are often associated. A city is mainly considered to be an economic centre (section 2) and *vice versa* a central place is considered to be urban (e.g. Smith).

Economic centrality often involves a degree of political power and a central place is thought to have political functions. This is clear from the arguments in the debate about the central place role of *oppida*: control of a territory, settlement hierarchy, political role (chapter 1). The political dimension is also clear from various central place models: control over the redistribution of goods from the territory (Christaller) and political and administrative centre (Smith). However, a political function is hard to detect archaeologically. The area of influence of a site or the extent of political control over a territory is hard to reconstruct from archaeological finds. The hillforts in Wessex, for instance, are large and complex but the ability to control a large area “implies a political complexity beyond the capacity of the hillfort society”. It would be “almost impossible to police boundaries in large polities of, for instance Dorset” (Sharples 2010: 446). *Oppida* may have been more complex than hillforts but the scale of the societies interactions remain difficult to recover. Collis (2009: 4) states the

attribution of a political function is: “something of which we can only be fairly sure when we have documentary evidence”.

4. Conclusion

There are many different 'central place' theories. They all insist on the fact that goods arrive on the central place whether for redistribution, sale, or tribute. Each of these economic roles implies specific economic and political powers: the control over the territory and the right to redistribute, a monopoly on the market, or the power to get tribute.

Nevertheless not every centre is a central place. According to Smith (1976: 314-320) there are no central places in direct exchange systems without market or commercialisation. Nonetheless there might be nodal centres that are organised by a local hierarchy. Collis (2009: 4; 2010: 2) argues that a central place needs ‘something to be central to’ and that it requires other settlements to which it is offering services (Collis 2010: 2). This minimal definition is very adequate. The services may be religious or economic or political or a combination thereof. The presence of these services does not necessarily imply political dominance. I will adopt this definition with the reservation to use the term 'centre' instead of 'central place' because the latter term has become too loaded to be adequate.

Because of the wide variety of interpretations one should not use the term ‘central place’ without specification of the related meaning or without placing the idiom in context. I will not presume that *oppida* fit into one of the central place models. Instead I will analyse some *oppidum* sites in detail to check if they might accord to one of the models and, moreover, to identify their own particular organisational principles. I will use the terms 'central place' and 'central place function' only if site-analysis shows that a particular *oppidum* site clearly conforms to one of the central place models. I will use the term 'centre' to indicate a site that offers services for other settlements.

4. The Mediterranean city and its traditional features

The debate on the urban character of *oppida* is centred on the presence or absence of traditional urban features: a large size, a considerable permanent population, an urban lay-out

which includes settlement planning, ramparts, public buildings, public amenities, public places, and functional zoning, as well as a role as political or at least as economic centre. These traditional urban features are said to reflect a search for features of classical cities and medieval towns. The *oppida* are often compared to Mediterranean cities. Collis (1984a: 136) states that *oppida* resemble classical Mediterranean towns. Brun (1995a: 16) adds that the settlement form of the *oppidum* is adopted from the Mediterranean. Buchsenschutz (1995: 61; 2004: 346-8) argues that the lack of traditional urban features makes the *oppida* “different from the Mediterranean”. The Mediterranean city acts as a general standard to determine the degree of urbanism for the *oppida*. Collis (2010: 5) aptly remarks that the Mediterranean tends to be used as some sort of template for measuring urbanism. One looks at the *oppida* through the eyes of the ideal Mediterranean city.

However, the ideal of the ancient Mediterranean city might be overstated. Currently the Mediterranean city has become highly debated. For well over a hundred years people studied the city without making use of archaeological evidence, and vice versa (Snodgrass 1991: 1). They used to focus on the building layout and monumentality (Wallace-Hadrill 1991b: IX), and on distinctive ‘urban’ phenomena and ‘urban’ types of society, features that are in fact alien to ancient society (Rihll and Wilson 1991: 89). Now there is a shift of attention towards the countryside and to systematic survey (Wallace-Hadrill 1991b: IX). Owens (1991: 9) states that even the apparent uniformity which the Romans brought throughout the empire is less substantial when the cities are examined in detail. Therefore we can assert that the current debate brings about new ideas on the ancient city.

In the subsequent section, I will examine the significance of the 'traditional urban features' in Mediterranean cities. I will explore each of these features in the light of the current ideas and new insights on the Mediterranean city. My aim is to break down the traditional view on the ancient city in order to re-evaluate the *oppidum* unbiased and in its own specific context.

1. Urban lay-out

The majority of early Mediterranean cities appear to have been unplanned. Proper town planning is mainly in the Greek and Roman colonies (Owens 191: 47; Snodgrass 1991: 10). In Athens it was only after 700 BC that the graves started to be progressively eliminated for an

increasing area of the *agora* site (Snodgrass 1991: 10-11). The earliest Etruscan cities were in all cases unplanned (Owens 191: 96). Even Rome remained essentially unplanned until the great fire of AD 64 (Owens 191: 94). On the other hand, small villages could well be rigorously planned, e.g. Vroulia on Rhodos. Therefore, as Morris (1991: 40) concludes, planning is not necessarily an indication of urbanism. The fact that a settlement can be called city whilst it has no rigid urban planning, removes one's stress to find such planning in European settlements.

Street plan

Some Mediterranean cities are grid-planned but others, Corinth for instance, have less strict structures. Livy (V 55. 2-5) mentions the irregularity of the republican city of Rome. A proper grid plan actually developed in the colonies, in new foundations (Morgan and Coulton 1997: 108). The recurring feature of the grid plan is the main street which traversed the site. This street conditioned the general orientation of the buildings and other streets. Initially houses and other buildings tended to concentrate along the main street. The grid plan is often misinterpreted as a strictly orthogonal arrangement. In fact the streets were not always straight, cross streets not always perpendicular and the resulting domestic *insulae* were consequently not uniform (Owens 1991: 48-49, 35). This is shown in the example of early Veii (Figure 3). In fact such street plan (Figure 3) is not very different from those found at *oppida* (Chapter 4-6).

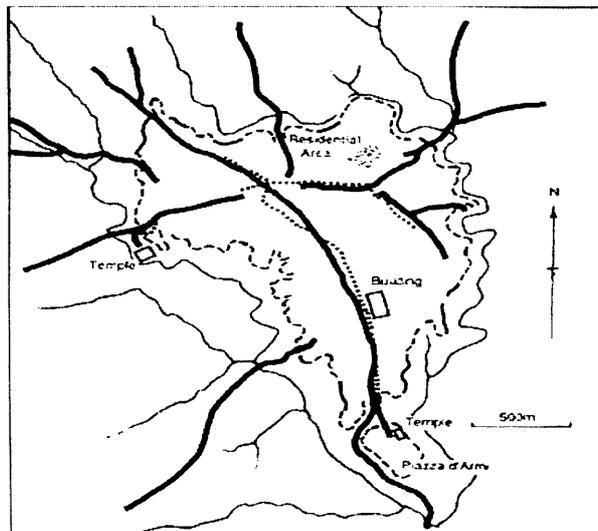


Figure 3: Street plan in Veii, Italy (Owens 1991: 97, fig. 33)

Zoning

In the ancient city there is little evidence for zoning. Zoning implies that land was specifically reserved for public, private and sacred use. It is true, in Plato's ideal city artisans and citizens had their own quarters, but it remained an ideal of a city and was never put in practice. There is little evidence for industrial activities in specialised districts in Greek cities before the late 6th Century BC. Even then craft production remained on a very small scale probably as part-time household operation (Morris 1991: 38-39).

In Roman cities there are no distinct zones either. The traditional classification of houses by social class was based on the assumption that houses with (work)shops belonged to the socially humbler part of population, while houses of traditional construction, with an *atrium*, belonged to the socially superior population (Wallace-Hadrill 1991a: 253-254). This assumption is still firmly present in most interpretations of *oppida*. In Pompei residential and non-residential usage apparently intermingled in all regions of the city. In Rome there was no perceived incompatibility between elite housing and the presence of petty commercial activity (Wallace-Hadrill 1991a: 259-260, 263). There is only a general attraction of commercial activities to principal streets and corner locations (Perring 1991: 284). Perring even suggests a society where the clan-like ties of *familia* and *clientela* were more essential than any identification with class or economic interest (Perring 1991: 284).

In conclusion, the ancient city did not necessarily have an industrial quarter. Wallace-Hadrill (1991a: 260) aptly says that it is modern taste, not ancient, which finds the juxtaposition of the elegant residential and the crudely commercial surprising and shocking.

Density and organisation of habitation

Ancient cities were not dense and uniform. The archaeological studies at major Greek centres: Athens, Corinth, Argos and Eretria, start to confirm a picture of scattered, sporadic occupation (Owens 1991: 12-13; Figure 4). By the Classical period the main outlines of the Greek city were firmly established but even in that period urban dwellings were not dominant. Owens argues that the city was a political, religious and social centre for the community, but not necessarily the main centre of habitation for the population (Owens 1991: 18, 28).

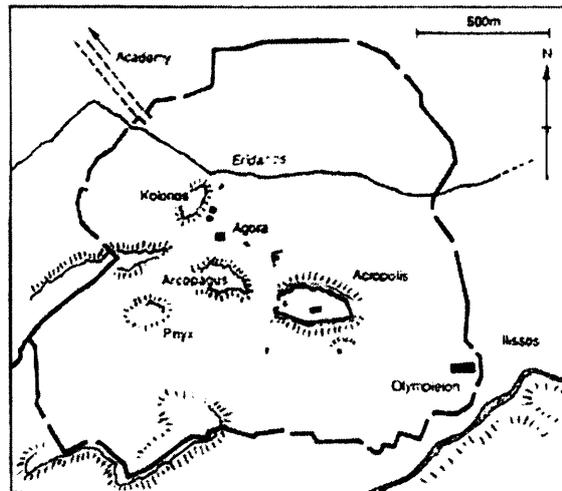


Figure 4: Early Athens in the ninth-eighth century BC (Owens 1991: 13, fig. 1).

The habitation pattern was conditioned by the topography of the site, the access to water supplies and the problems of flooding (Owens 1991: 26). The organisation of buildings varies widely. Roman cities mainly consisted of square or slightly oblong *insulae*. Greek cities had rectangular housing blocks with houses arranged in two parallel rows with direct access to the street. Sometimes the parcels of land were defined by drainage ditches (Owens 1991: 42, 156). Even the houses of Athens, were not uniform in size and lay-out (Morgan and Coulton 1997: 94-95).

2. Monumental architecture

Monuments are differently valued by the Greeks and the Romans (Owens 1991: 1). For the Greeks the heart of a city was not its buildings, but its inhabitants and gods. For example the Athenian general Nikias in the 5th Century BC maintained that men made a city, not walls or ships without men inside them. This idea made the abandonment of Athens at the time of the Persian Wars acceptable, especially when the Athenians realised that their protecting deity, in the guise of a snake, had already left the Acropolis (Herodotos 8.41; Owens 1991: 2).

It is the Romans who attached great importance to the tangible, material world, to buildings and stone pavements. Pausanias (10.4.1), for instance, asks how Panopeus can be considered a city when it has no state buildings, no theatre, no market place, no running water at a water head and no appropriate stone houses (Owens 1991: 2; Corbier 1991: 222). It is the Romans

who started paving the Greek theatres although it reduced the acoustic quality. The Romans found it difficult to abandon the city of Rome arguing that many of Rome's most sacred places were inside the city and they should not be abandoned (Owens 1991: 94).

Furthermore, monumental architecture does not correlate with central power. Sparta was the most centralised city yet it had the least splendid architecture, while Athens was less centralised and had the most adorned centre (Tomlinson 1992: 6). The lack of splendid architecture would not necessarily mean that the city or settlement is without great power (Tomlinson 1992: 14-23). The same emphasis on materiality is manifest in our modern - Romanised- view on a city and in our focus on monumental remains. In the modern concept of a city a stone building is considered to be superior to a wooden building, and definitely to an open space. It would be interesting to apply the Greek concept of city as community to the European *oppida*.

City walls

Until the reality of the *pax Romana*, the largest and most expensive urban monuments in Greek, Roman and Etruscan cities were city walls (Owens 1991: 149). However, walls are not an index of urbanism. These fortifications were even exceptional in early Mediterranean cities. It was the early Greek colonies that first required walls (Snodgrass 1991: 10). The city walls only became a regular feature of Greek cities in the sixth century BC and on mainland Greece only in the fifth century BC (Owens 1991: 149, Gat 2002: 132). Rome was encircled by a stone wall only after the sacking of the city in 390-387 BC (Gat 2002: 132). On the other hand even small villages may have had walls (Morris 1991: 39-40). Therefore a city and city walls are not inseparable.

There are several interpretations of the function of city walls, which are not mutually exclusive. Primarily city walls are considered to be military defences and a mark of status and privilege. Yet, these fortifications also had economic relevance as they could be used to secure and extend a customs barrier (Perring 1991: 282). Moreover, shops and temporary stalls, and often the *agora* or *forum* were situated near the gates (Owens 1991: 151). Additionally a city wall was also a symbolic boundary. Entering through the gates of a city may be seen as a religious act. However, boundaries are not always defined with walls but

might be marked only by gates, doorways and arches (Perring 1991: 282). Outside the city walls activities also took place. There were shrines, cemeteries and graves, amphitheatres, stadia and circuses, and even production activities in large, industrial establishments (Owens 1991: 152).

Public buildings

In the early stages of urban development in Greece there were only a few public buildings. Even the earliest evidence for Greek planning shows little or no attempt to coordinate the development of public buildings. Land was set aside for public use but its architectural development was often slow and piecemeal (Owens 1991: 27). The same is true for Roman cities. In Samnium, a region east of Rome, buildings were erected as late as the imperial period, mainly under the reign of Augustus (Patterson 1991: 151-152). According to Patterson this is due to elite mobility competition because public building was a way to compete for '*gloria*' (Patterson 1991: 154, 156).

In the early city, politics were transacted in the open air by the mass of the citizen-body. The major civic functions (religious, cultural, assembly) were open to all. One fourth of the total area was reserved for public use. The day-to-day affairs were handled by small elite groups in the rooms of their houses. There were no specialised formats for public buildings. It was only when the city developed that city life became more complicated and that a more specialised form of building developed. However, even in 5th century BC Athens these public buildings were not substantial (Tomlinson 1991: 20; 22-23).

Perring has an interesting theory on spatial organisation. He discerns structures that invite involvement and promote social cohesion on the one hand and structures that exclude involvement on the other hand (Perring 1991: 274). In the Roman towns he perceives a change in emphasis from strategies of inclusion to strategies of exclusion. This would have happened from the 1st century BC onwards. The change in strategy becomes apparent from the significant rise in the use of private villas as centres for elite social interaction and by public activities taking place in buildings instead of open *fora* and religious precincts. (Perring 1991: 282)

Agora/forum

To the Greek mind the *agora* remained essentially an open space, despite its later piecemeal and slow architectural development and progressive enclosing (Owens 1991: 153). Also the earliest Roman *fora* were often little more than open spaces. They gradually evolved to an enclosed and formal space, surrounded by shops, offices and *porticoes* (Owens 1991: 153-154; Perring 1991: 280). In fact, the *forum* of Rome primarily consisted of private houses and shops until the fire of 210 BC. It is only after that date that public buildings were gradually erected (Wallace-Hadrill 1991a: 262).

Perring (1991: 274) considers this as the evolution from inclusive to exclusive spatial organisation. An open *forum* allows a free flow of people. Its use, whether as assembly or market place, is difficult to control. Gradually the amphitheatre became the most important place of popular congregation and social interactions. It offered more control and seating arrangement according to social groups. Many amphitheatres were on the edge or directly outside the urban area. Strikingly gladiatorial contests originated as funeral games in an open *forum* (Perring 1991: 180-181). In addition Morgan and Coulton (1997: 108) aptly conclude that many open areas are themselves constructed spaces.

Temples

The amount of temples, shrines and precincts as well as the sanctity of several places within the city show the importance of religion in the architectural development of the city. There was a close relationship between the temples and other public areas (Owens 1991: 3, 154). However, the sanctuaries in the periphery, particularly at the boundaries of the cities, were of equal significance to those that were in the centre of Greek poleis. The religious buildings served to bind the *asty* and their territory by annual festive processions, to warn of the extent of territorial claims and to proclaim implications to every citizen. This connection touches the very heart of the polis idea (Snodgrass 1991: 18).

Paved roads

Unpaved roads do not necessarily reflect a lack of urbanism. In Greek towns many surfaces of roads remained only of beaten earth, gravel or shells and potsherds. Even the streets of Rome were not extensively paved until the time of Caesar (Owens 1991: 157).

3. Trade, production and central functions

The ancient economy is also an academic battlefield (Parkins 1998: 1). In the study of ancient economy there was an apparent confidence in all-encompassing models in the 70s-80s and there has been an extensive reliance on and overworking of Graeco-Roman evidence from the Classical period. Furthermore archaeology has now challenged established ideas by studying society from the bottom up (Parkins 1998: 2, 4, 10). Paterson (1998: 164) for instance rejects thinking in terms of the Roman economy at all. He argues for a network of micro-regional economies with their own natural rhythm and structure. These micro-economics were essentially designed to meet local needs.

The common concept of an overlapping residential split between the rural and the urban residence linked with an occupational split between agriculture and manufacture-plus-trade is to be abandoned. The current tendency is to reunite city and countryside (Wallace-Hadrill 1991b: IX). Town and country were indivisible. In fact, the town was an enlarged village (Osborne 1991: 120). Most of the Greek city-states' populace consisted of peasants who lived in the city and walked to work the land in the city's near vicinity (Gat 2002: 125). Aristotle reported that the citizens were too busy farming to come into town (Morris 1991: 37). He argued that a *polis* would not be able to support 5000 non-agricultural producers (Morris 1991: 35). In addition there was no legal distinction between the inhabitants of rural and urban origin, contrary to medieval and modern cities (Morris 1991: 36).

Furthermore, the concept of the self-sufficient peasant is a myth. All farmers have to go to markets for essentials such as salt (Paterson 1998: 158). They might also have stored most surpluses and invested it in high value durables, instead of selling it off (Alston 1998: 172-173). Some scholars suggest that the small farmers must have engaged in part-time trading activity (Alston 1998: 174). Craft production was also strongly embedded in the agricultural

cycle. There was no strict division of labour. As a result, the town did not centralise craft production. In contrast plenty of evidence for craft production is collected from the countryside and from second-order settlements (Morgan and Coulton 1997: 99-100).

Markets could well be held in places other than cities. Even the Greek *agora* was not restricted to the *polis* (Morgan and Coulton 1997: 107). In addition, cities could well exist without notable markets (Alston 1998: 196). Alston argues that the place of a city in the trade network in fact varied considerably from region to region (Alston 1998: 197). Even Athens was not bound in a system of markets (Osborne 1991: 140). Some later Roman towns were even excluded from the exchange networks. In fact, the surrounding community had their own fairs and they complemented each others deficiencies with no need for the city (Perring 1991: 287-288). The villagers of Antioch in Egypt, for instance, tended not to come to the market in the city but to exchange goods between themselves at regional fairs (Alston 1998: 196). This statement introduces the idea that the ancient villages, and not the cities, shaped the –not always extensive- exchange network (Alston 1998: 171, 183).

Thus, cities were merely a part of a complex network of urban and rural communities. They did not simply centralise or monopolise economic activity, they did not simply control the surrounding area. Cavanagh (1991: 110-112) argues that the archaeologists might be tempted to reconstruct a settlement hierarchy but that the literary sources show a more complex multidimensional reality. A clear example is the city of Ashur. Instead of political control over Anatolia –the traditional view- Ashur simply had agreements with Anatolian leaders under which the Ashur traders could operate within their territory. Assyrian merchant families then sent male relatives to one of the Anatolian colonies to settle and to direct the family business in trade (Kuhrt 1998: 18, 25-27). Classical Greek city states had no central monopoly or force either. Standing forces to impose the decisions of office holders and to carry out police functions were very rare. The state authority rested to a remarkable extent on the willingness of individual citizens to fulfil their obligations (Morris 1991: 44). Even the control or influence of Rome over its neighbouring region, southern Etruria, fluctuated considerably over time. Rome had an intimate relationship with its hinterland but in some periods there was an opposition by the Roman countryside (Potter 1991: 192, 206).

4. Conclusion

The typical 'Mediterranean city' does not exist. There is no uniformity among Mediterranean cities. The apparent uniformity is less substantial when the cities are examined in detail (Owens 1991: 9) and it has led to facile generalisations (Alston 1998: 197; Potter 1991: 192). In fact, the Greek and Roman world remained predominantly non-urban (Millett 1991: 180; Owens 1991: 51-52). This puts the commonly used umbrella term 'Mediterranean city' into perspective and questions the alleged dichotomy between urbanised Mediterranean and non-urbanised Europe. Therefore we should refrain from comparing the *oppida* with an ideal city to decide whether or not they are urban.

The 'traditional urban features' are not always present at a Mediterranean city. This shows that we should not put these standards to the *oppida* as a prerequisite to be acknowledged as urban. The absence of a few features is not accurate enough to be used as an argument in the debate on urbanism. These standards should not be put to any form of ancient settlement. In fact, the *oppidum* is not very different from many Mediterranean cities. It seems that both types of ancient settlements were (too long) understood from a modern point of view.

I do not aim to define whether *oppida* are either urban or not urban. I aim to understand the individual character and significance of the *oppida*. Therefore I will test to what extent the traditional urban features are present at each *oppidum* site and subsequently I will focus on the individual features of each site by a detailed context-specific analysis.

5. The definition of elite and social hierarchy

One aspect in the debate on urbanism of *oppida* concerns the structure of society. In almost every publication on *oppida* scholars talk about elite and assume social hierarchy and centralisation of power held by those elite. On this topic Hill (2006: 171) remarks "Iron Age Europe appears on paper to have been full of elites". Nevertheless there is no consensus between scholars on the nature of those elite. Several questions about this group of people remain open: who were the members of the elite, what was their status and how did they achieve that status. For instance, Collis (2010: 3) argues for a hierarchical society with

perhaps a land-owning aristocracy, while Buchsenschutz (1995: 53) opts for an aristocracy in command of production and trade.

The matter is closely related to the theories on cities and central places (Section 2 and 3). According to Childe (2002: 14-17) an ancient city had a ruling class of priests, civil and military leaders, and officials dedicated to planning and organisation. Sjoberg (1960: 112-113, 118, 321 and 327) argues for urban elite that consists of officials, sometimes supplemented by members of other occupational groups such as: landlords, military personnel and merchants. He distinguishes the urban elite from a rural aristocracy. Vance (1971: 101, 105) made an attempt to plead for a relatively egalitarian society but then again he acknowledges a group of leading citizens, patricians, whose power is based on external trade and economic activity. He also agrees with the existence of a non-urban aristocracy that is fundamentally military and land-owning in origin. Langton (1975: 21-22) discards the term social class as an “intellectual device that has little relevance to 17th century English society”. On the other hand he does accept a wealthy merchant oligarchy to have municipal power.

In this section I will review some of the criticism against social hierarchy and explore the basic elements for the interpretation of the *oppidum* society: social status and Caesar. I aim to eliminate common assumptions and to retain the basic elements that are relevant for a context-specific interpretation of social structure with regard for individuality and dynamics.

1. Some critical remarks against the presumption of social hierarchy and elite

Sharples (2010) studies the transformation from dispersed society to hillforts from the Bronze Age to the Iron Age. The traditional view on hillforts mirrors the one of *oppida*. In the middle 1980s the established model of Iron Age society was that of dominant elites living in hillforts, which were central places controlling a territory (Sharples 2010: 2). This model is based on the belief in the inevitable agency of the 'great man', or the assumption that the presence of hillforts must have required the presence of an individual who could plan the lay-out and organise the massive labour force. Nonetheless the challenge remains to identify these leaders and chiefs. There is not much evidence for elite goods and prestige buildings in hillforts. At Danebury, for instance, the houses are small and surprisingly uniform (Sharples 2010: 181). The organisation of these structures is reminiscent of terraced housing in the industrial cities

of 19th century northern England (Sharples 2010: note 48). Sharples (2010: 103-104) argues that it is often more logical to accept that sovereign chiefs did not exist. In fact, an individual is created through complex relationships between people (Sharples 2010: 110). There are societies where the individual is subordinate to the group (Sharples 2010: 437).

Hill (2006) pleads for a heterarchical society. He states that many Iron Age societies were not hierarchical and that they were not ruled by an elite (Hill 2006: 169). The common models of Iron Ages society are, for instance, warrior aristocracies led by chiefs or kings, and the redistribution chiefdom. These models are depicted as triangles (Hill 2006: 172; Figure 5a). He argues for alternative models with a large proportion of the total population at the 'top' of society (Figure 5b). Hill does not present one common model. He states that there were very different types of Iron Age society at any given time and through time (Hill 2006: 172). In fact a whole continuum of socio-political systems existed. The opposing ends of the continuum are the centralised systems on the one end, and the *acephalus* or 'headless' societies on the other end (Hendry 1999: 165).

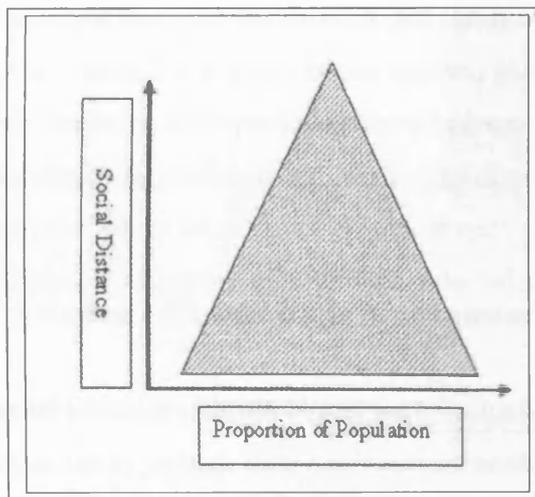


Figure 5a: Hierarchical society (Hill 2006: 170, fig. 1).

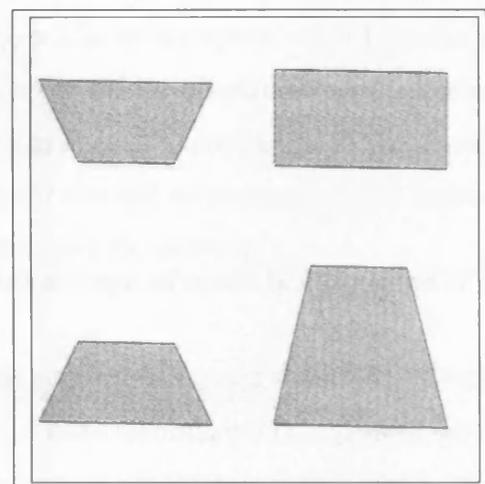


Figure 5b: Non-hierarchical societies (Hill 2006: 173: fig. 2).

The archaeological evidence does not clearly indicate a hierarchical or a heterarchical society. The reality is much more complicated. At Bibracte the palatial private houses (Parc de Chevaux 1 and 2) suggest that the elite lived there (Collis 2010: 8). And sumptuous burials, for instance those at Goeblingen-Nospelt in Luxembourg, are interpreted as the burials of aristocrats (Collis 2009: 13). Nonetheless it is not clear whether the 'palisade' enclosures

commonly found at *oppida* are the residences of a land-owning aristocracy or just normal farming settlements (Collis 2010: 5). Rich grave goods are generally connected with high status (Collis 2010: 4), but there are exceptions. Recent studies on the Hallstatt site reveal that the people with the richer grave goods were miners and not an elite group exploiting a slave population who did the labouring (Collis 2009: 10). A small degree of differentiation in the wealth of grave-goods tends to reflect an egalitarian society but this may be misleading because wealthy items such as armour are found in other contexts such as hoards, rivers and marshes (Collis 2009: 9). The aristocracy which is frequently mentioned in the written sources is less well documented by archaeological finds (Collis 2009: 12). There are strong indications for social differentiation, such as the sumptuous burials or special house types, but it is not clear that it is a hierarchical differentiation.

2. Social status

The key challenge to the question whether society was hierarchical and led by an elite, is the fact that term elite can be interpreted in various ways. The bases for elite status and the ways to achieve that status are aptly summarised by Collis (2010: 4):

1. lineage: one's position within the system of extended family structure, supported by the principles such as the right of primogeniture.
2. inherited status and wealth: e.g. membership of an aristocratic and wealthy family.
3. personal charisma: popular support, elections
4. personal ability and intelligence; e.g. the *novus homo* like Cicero in Roman politics.
5. control of land: through claim on its produce or collecting rent.
6. control of primary production such as mining.
7. industrial production.
8. military power: perhaps by conquest.
9. patronage: especially through political liaisons of common interest, intermarriage, etc.
10. restricted access to knowledge: especially religious control by priesthoods.

There is not one key element but instead status is usually facilitated by a combination of factors (Collis 2009: 7-8). Possibilities 1 to 4 are the ways to achieve status, and listings 5 to

10 are the basis of that status. Status can be achieved by the individual, reflected in listing 1, 3 and 4, or it can be based on the membership of a group, indicated in listing 2. This spectrum of the possible routes to higher status is very valuable because it acknowledges the diversity and dynamics of a social structure. However, despite this variety, the term 'elite' is still mainly used interchangeably with 'aristocracy', or inherited status. Such aristocratic or inherited status is rigid and static. It excludes non-family members and it does not allow change over time and space. Elite should not be reduced to inherited aristocracy. Therefore, differentiation in grave goods and house size must not necessarily be indicative of the existence of aristocracy (listing 2) that has economic and/or political power (listing 5 to 8). The differentiation could equally point to religious elite, for instance, and even then, the religious elite should not be interpreted as an inherited religious class. A member of religious elite may well have had personal status, for instance based on personal charisma, ability and intelligence, which would have been enhanced by the restricted access to knowledge (listing 3, 4 and 10).

With these ideas on status and elite in mind, we can explore the status of the various groups in *oppidum* society. Collis (2010: 3-4) reviews the professional and social status of the main categories of possible *oppidum* residents:

- social elite: e.g. the *vergobret* or druid from historical records. We do not know what the basis of their power was: land-owning, trade, headship of lineages, charisma, others.
- merchants and traders: in traditional societies the social status of traders is low. In the late Iron Age of temperate Europe we have no clear evidence for the existence of an indigenous trading class but they are assumed to have existed.
- warrior class: although a 'warrior aristocracy' is supposed to be a characteristic of 'Celtic' society, there is no evidence for a grouping of such men in '*oppidum* societies'.
- craftsmen: by the Late Iron Age there is a lot of evidence for the existence of a class of full-time craftsmen, although some may have been controlled by aristocratic patrons. However, like the merchants, by the Roman period the craftsmen already had their own independent organisations in the form of guilds.
- farmers: their status too could vary from a relatively poor class tied to the land to a relatively rich group, either owning their own land or renting it from the aristocracy.
- urban poor and slaves; they are less easy to identify by archaeological finds.

These are the main social categories traditionally referred to in *oppidum* studies. The differentiation is relatively objective because it is mainly based on one's profession and because Collis does not add a fixed status to the categories. Therefore the categories are very useful as a starting point for social analysis. Their actual status has to be examined on the basis of the archaeological data at each individual site. In addition it has to be kept in mind that a combination may exist: farmers can be part-time craftsmen and maybe even have a social elite role.

3. The Gallic society according to Caesar

There is a contemporary written record on the *oppida* in Gaul by an eyewitness namely Caesar (Section 1). It would be mindless and thoughtless not to make use of such an opportunity. His references figure in most publications on Iron Age society. The core of all theories on *oppidum* society is his famous statement that Gallic society consisted of three groups of people: the druids, the *equites* (translated with elite, nobles, knights...) and the *plebs* (common people):

"In omni Gallia eorum hominum, qui aliquo sunt numero atque honore, genera sunt duo. Nam plebes paene servorum habetur loco, quae nihil audet per se, nullo adhibetur consilio. ... Sed de his duobus generibus alterum est druidum, alterum equitum."

"Throughout Gaul there are two classes of persons of definite account and dignity. As for the common folk, they are treated almost as slaves, venturing naught of themselves, never taken into counsel. ... Of the two classes above mentioned one consists of Druids, the other of *equites*." (DBG 6.13; Translation by Edwards 1917)

The question remains if Caesar's recording was actually correct. How well could a Roman understand what was really going on in a foreign society? It is obvious that he imposes Roman concepts on to a non-Roman society by using the words: *plebs*, *equites*, and *consilium*. Thus he attempts to fit the foreign society into the familiar Roman structures. Caesar's situation is to some extent analogous with European nations setting up colonies and interpreting the colonised society. Centralised, hierarchical systems were most familiar to the Europeans (Hendry 1999: 166). A centralised system is also relatively easy to understand, to defeat and to incorporate in the invader's centralised system (Hendry 1999: 167). However, societies with a less clear cut leadership system and no formal system of authority posed

many problems to the colonising governments. Typically, such governments try to appoint a local chief and work through that chief to maintain communication. Nonetheless in most cases this was unsuccessful. Very often those new chiefs, who generally received incentives such as a uniform, found themselves ridiculed by the community. Hendry (1999: 168) even states that “in some areas only a person regarded locally as an idiot would contemplate such a role”.

The same must have been true for the Romans when they encountered European ‘Celtic’ society. The Romans were familiar with hierarchical and centralised social structures. They were eager to find out who was the leader in the foreign lands, who were the ruling classes in the hierarchical system in order to establish diplomatic contacts and political subjection. Therefore Caesar’s interpretation of European society is shaped to the Roman political mould. It is a valuable source, yet to be interpreted with caution.

4. Conclusion

Many scholars consider the *oppidum* society as hierarchical and led by an elite. The apparent need for an elite may be best explained, to my opinion, by Smith (1976: 330-332) who states that the agrarian society is economically divided between food producers on the one hand and non-food producers or elite on the other hand. In the previous section, I reviewed various interpretations of the idiom elite. These interpretations all fit in this framework forwarded by Smith; the non-food producers can be land-owners, warriors, *equites*, merchants, religious officials, administrators etc. The distinction, elite *versus* non-elite, is basically occupational. The reason for such distinction may well be the underlying idea that large communities require people with specific organising functions and that people who hold those positions, which may be called elite, cannot be involved in food production on a full-time basis. In fact a distinction, producers *versus* non-producers, might even be more accurate because craftsmen are non-food producers but they are generally not regarded as elite.

The general distinction of Smith does not necessarily imply power or inherited status. Nevertheless, elite is commonly interpreted as the powerful class that dominates the others. This is based on the idea that status is based on 'control', referred in listings 5-8 by Collis. Moreover the elite status is often interpreted as inherited, denoted in listing 2. This results in a very rigid and static hierarchy. Such hierarchical view on society has been criticised. Alternative social interpretations focus on the individual or argue for a heterarchical society.

I adopt the notion of social differentiation but I do oppose the assumption that elite is equated with aristocracy, that elite status is hereditary and that a differentiated society is hierarchical. The term 'aristocracy' refers to a group of people with inherited status, also called 'class'. For me the word 'elite' does not refer to aristocracy or class, unless the inherited status of the elite is clearly proven. I will use the term 'elite' as an open concept, meaning 'an individual or a group of people who are for some reason differentiated from the others'. Nevertheless for their actual status, power and membership I will start from the archaeological data and not from general presumptions. I will look for individuality and I am fully aware of the fact that society is not necessarily hierarchical.

6. Conclusion

This chapter aimed to explore the concepts that form the basis for *oppidum* interpretation: Caesar's account, the concepts urbanism and city, the central place theories and the idea of social hierarchy and elite. In this section I will draw conclusions from the summaries and outline how I will treat these concepts in my dissertation.

From the origins and use of the Latin word *oppidum* it appears that it was essentially a settlement and gathering place for communal events namely: jurisdiction, political assemblies, religious festivals and economic markets. It includes the ability of gathering resources. The ramparts may have served to protect and to symbolise the communal significance of the *oppidum* although not every *oppidum* had ramparts. This interpretation will be tested in the site-analysis of the *oppida*.

The modern concepts city and urbanism are proven to be inadequate for ancient sites. In fact the idiom 'the city' is ambiguous, dynamic and individual. Therefore the common checklist approach to identify the status of a site is found to be inaccurate. The *oppidum* and the city are often associated with central place functions. However, this term implies specific roles and functions that should not be simply transferred to *oppida*. The *oppida* are often compared to 'Mediterranean city' but from my review we can conclude that this is merely an ideal because there is no match to the reality of Mediterranean cities. Therefore a comparison to this ideal is futile. The 'traditional urban features' are not always present at a Mediterranean city and therefore we should not put these standards to the *oppida*. The *oppidum* society is mostly seen

as hierarchical and led by an elite. These elite are mainly interpreted as non(food) producers and the distinction elite *versus* others is basically occupational. Nevertheless, elite is often interpreted as the powerful class of aristocrats that dominates the others. This is a very rigid and static interpretation.

I do not aim to define whether *oppida* are urban or not but rather to examine to what extent the *oppidum* sites can be called urban and whether they reveal different forms of urbanisms. I will not presume that *oppida* fit into one of the central place models but I will rather examine their degree of centrality. I will not dismiss social differentiation within the *oppidum* society but I prefer to look for individuality and to take into account that society must not be necessarily hierarchical.

I will not start from presumptions such as urbanism, central place and elite and force them on to the *oppidum* sites. On the contrary, I aim to understand the individual character and significance of the *oppida* and deduce the interpretation from the archaeological data. I will focus on the individual features and functions of each site. My aim is to find an alternative interpretation of *oppida* that does not generalise, but that suit the dynamic and specific character of each *oppidum*.

I will use the terms 'central place' and 'central place function' only if a site-analysis shows that the site conforms to one of the existing central place models. Instead I prefer the word 'centre' to indicate a site that offers services to other settlements. I will not use the terms 'aristocracy' or 'class' because they allude to inherited status. I will use 'elite' as an open concept, meaning 'an individual or a group of people who are for some reason differentiated from the others'.

Appendix 1: Caesar's accounts on Avaricum, Gergovia and Alesia

The quotes of Caesar are translated by Edwards (1917). For the words *oppidum* and *urbs* I prefer to use the Latin word, because Edwards's translation 'city' involves an interpretation which is the basis for the main research question of this dissertation.

Avaricum

- DBG 7.13: '*Caesar ad oppidum Avaricum, quod erat maximum munitissimumque in finibus Biturigum atque agri fertilissima regione, profectus est, quod eo oppido recepto civitatem Biturigum se in potestatem redacturum confidebat.*' '... Caesar moved off to the *oppidum* of Avaricum, the largest and best fortified in the territory of the Bituriges, and situated in a most fertile district. He felt confident that by the recovery of that *oppidum* he would bring the state of the Bituriges again into his power'

- DBG 7.16: '*facile se loci natura defensuros dicunt, quod prope ex omnibus partibus flumine et palude circumdata unum habeat et per angustum aditum.*' '... they would easily defend themselves by its natural strength, for it was surrounded by river and marsh on almost every side, and had a single and a very narrow approach.

- DBG 7.17: '*Castris ad eam partem oppidi positis Caesar, quae intermissa a flumine et a paludibus aditum, ut supra diximus, angustum habebat, ..*' 'Caesar pitched his camp on that side of the *oppidum* which was unenclosed by the river and the marshes, and had, as above mentioned, a narrow approach. ...'

- DBG 7.32: '*Caesar Avarici complures dies commoratus summamque ibi copiam frumenti et reliqui commeatus nactus exercitum ex labore atque inopia refecit.*' 'Caesar halted at Avaricum for several days, and by the immense quantity of corn and all other supplies which he found there recuperated the army after toil and want.'

- DBG 7.15: '*Deliberatur de Avarico in communi concilio, incendi placeret an defendi. ... ne pulcherrimam prope totius Galliae urbem, quae praesidio et ornamentato sit civitati, suis manibus succendere cogere...*' 'They deliberated in a general convention whether

Avaricum should be burnt or defended. ... almost the fairest *urbs* in all Gaul, the safeguard and the ornament of the *civitas*.’

Gergovia

- DBG 7.34: ‘...*ad oppidum Gergoviam*...’ ‘... to *oppidum* Gergovia ...’

- DBG 7.36: ‘*Caesar ... Gergoviam pervenit equestrique eo die proelio levi facto perspecto urbis situ, quae posita in altissimo monte omnes aditus difficiles habebat..*’ ... ‘Caesar reached Gergovia... On the fifth day a slight cavalry skirmish took place; and having reconnoitred the position of the *urbs*, which was set upon a very lofty height, with difficult approaches on every side, ...’

- DBG 7.36: ‘*Erat e regione oppidi collis sub ipsis radicibus montis, ...*’ ‘Opposite the *oppidum* there was a hill at the very foot of the mountain, ..’

- DBG 7.41: ‘...*castra ad Gergoviam movit.*’ ‘... he struck camp for Gergovia.

- DBG 7.45: ‘*Haec procul ex oppido videbantur, ut erat a Gergovia despectus in castra, ...*’ ‘The proceeding was noticed afar from the *oppidum*, as there was a bird’s-eye view from Gergovia into the camp.’

Alesia

- DBG 7.68: ‘..*protinusque Alesiam, quod est oppidum Mandubiorum, iter facere coepit...*’ ‘... at once (he) began the march to Alesia, an *oppidum* of the Mandubii, ...’

- DBG 7. 68: ‘...*ad Alesiam castra fecit. Perspecto urbis situ ...*’ ‘..he pitched camp near Alesia. He reconnoitred the situation of the *urbs*..’

- DBG 7.69: ‘*Ipsum erat oppidum Alesia in colle summo admodum edito loco, ut nisi obsidione expugnari non posse videretur;..*’ The actual *oppidum* of Alesia was sat atop of a hill, apparently impregnable save by blockade.

- DBG 7.69: ‘*Ante id **oppidum** planities circiter milia passuum tria in longitudinem patebat: reliquis ex omnibus partibus colles mediocri interiecto spatio pari altitudinis fastigio oppidum cingebant.*’ ‘Before the *oppidum* a plain extended for a length of about three miles; on all the other sides there were hills surrounding the town at a short distance, and equal to it in height.’

- DBG 7.79: ‘*Erat ex **oppido** Alesia despectus in campum.*’ ‘There was a bird’s-eye view from the *oppidum* of Alesia over the plain.’

- DBG 7.84: ‘*Vercingetorix ex arce Alesiae suos conspicatus ex **oppido** egreditur*’ ‘When from the citadel of Alesia Vercingetorix observed his countrymen, he moved out of the *oppidum*’

Oppida of the Bituriges

- DBG 7.14: ‘*Praeterea **oppida** incendi oportere,..*’ ‘Moreover, any *oppida* which ...ought to be burnt ..’

- DBG 7.15: ‘*Omnium consensu hac sententia probate uno die amplius XX **urbes** Biturigum incenduntur.*’ ‘This view was approved by general consent, and in a single day more than twenty *urbes* of the Bituriges were set on fire.’

Chapter 3: Introduction to the case-studies

The research aim requires a context specific approach. In order to examine the individuality of *oppida* and to check the common assumptions to the archaeological reality I opt for a detailed analysis of *oppidum* sites. In this chapter I will briefly outline the method of these case-studies. I will also account for the choice of the case-studies and briefly explain the main terminology. This chapter aims to be a guideline to the case-studies in chapter 4, 5 and 6.

1. The method of the case-studies

The site analysis will focus on specific features of the *oppidum* sites to solve the research questions:

1. I will verify the presence of traditional urban features at the *oppidum* to check their validity, and I will explore alternative features to reveal the individual character of each site.
2. I will explore the economic, political and ritual activity at the *oppidum*, as well as the specificity of its location and its relation to the surrounding area. This way I aim to reveal the function the *oppidum* and test its centrality in a region.
3. I will search for heterogeneity in material culture and for a significant spread of the traditional indicators for elite, in burial and settlement evidence, to examine the existence of elite and social hierarchy.
4. I will study the amount and origin of imports and coins to verify the *oppidum*'s relation to long-distance trade.
5. I will include the period preceding and following the traditional *oppidum* period. It aims to understand the *oppidum* as part of a long-term settlement history.

2. Selection of the *oppidum* sites

The selection of the *oppidum* sites is based on specific criteria. The sites have to be

- generally acknowledged *oppidum*-sites
- sufficiently spread geographically (Figure 1)

- formally very different from each other (Table 1)
- sufficiently excavated and published

I selected sites that are already admitted into the category ‘*oppidum*’ because I aim to check the homogeneity of the existing concept. I do not question the basic elements of the concept: ramparts, and geographical and chronological definition. Questioning these three features would require a different research question and method, more specifically a comparison between traditional *oppida* and sites that are not acknowledged as *oppidum*.

Originally it was my intention to study the small and unknown *oppida* only. Rather early I had to acknowledge that the less-known *oppida* are generally not systematically excavated and badly published. That is why I shifted my attention to well-published sites with special focus on geographical spread and formal variation between the sites. The spread and variation aims at exploring the internal individuality of the *oppida*, and to check the analytical questions against sufficiently different contexts.

The exclusion of Bibracte and French *oppida*

Initially, I selected the *oppidum* of Bibracte as a case-study because I wanted to find out what that ideal prototype *oppidum* really looked like. I read the main publications on Bibracte, subsequently I went on a site visit in July 2005 and afterwards I wrote a draft chapter. But the result remained unrewarding and unsatisfying. The major problem was that it was not always clear which structures were pre-Roman. In fact the major attention of studies on Bibracte lies on the outstanding Gallo-Roman buildings. When I was reading through the publications on Bibracte I realised that I did not have enough data to rely on for studying La Tène *oppida*.

Another, smaller problem is that publications on Bibracte mix description with interpretation, and the interpretations are all based on Caesar. It is telling that in the main publication on Bibracte each chapter, whether on economics, politics or inhabitants, starts first with Caesar’s account and then, in the last resort, includes the archaeological data (Goudineau and Peyre 1993: 51-54; 81-82; 107-109). Furthermore, the data are approached from the explicit research question to recover Caesar’s descriptions: for instance, the quest for the house of Dumnorix, his men and his horses and the quest for granaries, based on Caesar’s account of

grain at Bibracte (Goudineau and Peyre 1993: 109). Bibracte is not an exception. French *oppidum* scholars generally base their interpretation of archaeology on history. That is fair enough, but there should be a healthy balance between archaeology and history. The French archaeological publications often verge on poetry and lack detailed descriptions.

Due to these problems, I had to accept, though very reluctant, to omit Bibracte as a case-study. In its stead, I chose an *oppidum* site with a sufficient amount of objective and adequate data: Manching.

Manching and Bavarian *oppida*, Germany

I selected Manching to replace Bibracte because it is also considered a prototype *oppidum* (chapter 1). Furthermore it stands out because it is not located on a promontory, like most *oppida*, because it is very large and it has a variety of structural forms within its ramparts. No less than 26 ha have been examined. Manching is well published with 16 volumes describing excavation areas and artefact types, and in numerous articles on thematic issues. Unfortunately I did not manage to go on site visit because the shift from Bibracte to Manching happened rather late in the research process: July 2008. It took me six months to read through the lavish amount of publications and write the chapter.

The German approach is merely descriptive. As a result the publications are encyclopaedic reports with very detailed descriptions of every single artefact and structure. Nothing is missed out. Though it may lack a vivid expression of spirit, such publications are very adequate for thematic analytical studies such as this dissertation. The reader can take out whatever he or she needs as there is enough information available. The problem, and opportunity at the same time, is the fact that the publications on Manching are so numerous and extensive, with an enormous amount of detailed information. Here the challenge is to keep in control of the amount of information, and to see the wood for the trees.

Titelberg and the Treveri *oppida*, Luxembourg.

The Titelberg was selected because it stands out among the *oppida* due to its very explicit enclosed religious area, and the abundance of burials just outside the ramparts. I was also

intrigued by the fact that Titelberg is generally considered to be the capital of the Treveri (Fichtl 2000: 283), although it is smaller than the *oppidum* of Martberg. Over 3,000 m² has been excavated by Luxembourg and American teams. The excavations are published in a substantial two-volume monograph and in addition important articles have been published by Metzler and Rowlett. I went on a site visit with my supervisor, Niall Sharples, in spring 2006.

The approach of the data and publication seems to reflect the geographical location of Luxembourg itself. The publications are fairly descriptive like German publications, but they are also quite narrative with some reference to Caesar like their French counterparts. This middle-range approach is quite convenient for an analytical case-study.

Hrazany and the Bohemian *oppida*, Czech Republic.

I wanted to include a Bohemian Czech *oppidum* because they are generally considered to be different from the general concept of ‘*oppidum*’ (chapter 1). In April 2006 I visited all the main Bohemian *oppidum* sites, together with my supervisor, Niall Sharples. I examined the available publications of all the *oppida* in order to find the most recent and detailed site publications that were not written in Czech language. Hrazany and Závist were clearly the best published. Závist is also a well-known site but the vast majority of its publications are on the La Tène A period, which is traditionally excluded from the ‘*oppidum*-period’ (chapter 1). Therefore I selected Hrazany as case-study. Hrazany is special because of the lack of imports, sanctuaries and evidence for coin production. The absence of these features is quite intriguing.

Czech archaeological publications remain very descriptive, in line with the German scholars. There is a similar tendency to detailed description and hesitant interpretation. This is also reflected in the publication of Hrazany. Jansová (1986, 1988 and 1992) describes every structure in detail and hardly develops innovative theories, apart from the ethnic question. The reader gets a vast amount of detailed bits and pieces of information which he has to start relating and combining in order to get a full picture. But there is definitely enough information to do so. The plans bear no indications of interpretation of structures or phases. This I had to deduce from the descriptive texts. Most of my work on Hrazany was to translate the descriptions into visual, coherent contexts and to make clear indications on the plans. Contrary to Manching and Titelberg, there is only sparse information on the immediate

vicinity of Hrazany. As a result, for many subjects I have to turn to more general publications on Bohemia as a whole.

Why not a British *oppidum*?

Britain has always been an outsider, symptomatically expressed by the reference to the rest of Europe as ‘the continent’. The same is true for *oppidum* studies. The archaeological record is said to be different. Because of the differences with the European counterparts as well as among the British *oppida*, they became categorised as ‘enclosed *oppida*’, ‘territorial *oppida*’ and ‘other nucleated settlements’ (Haselgrove 2000: 103). The excessive emphasise on the distinctness is why I was discouraged to include a British *oppidum* as case-study.

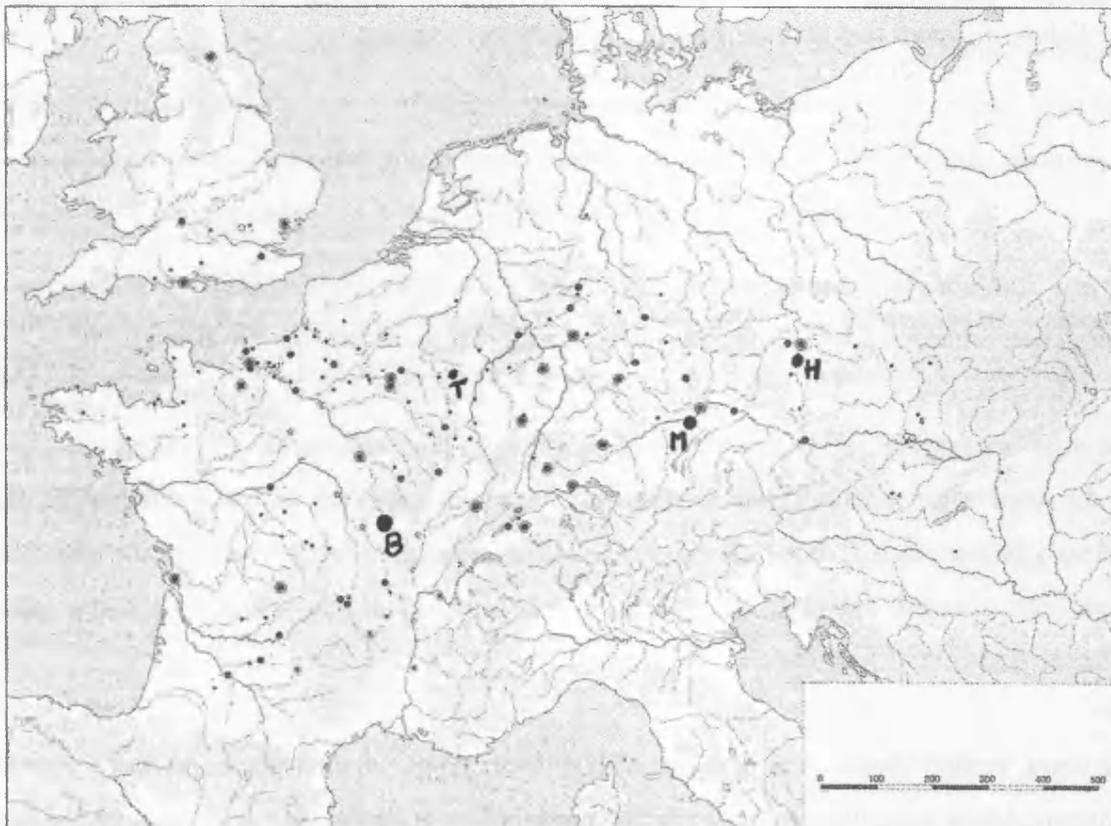


Figure 1: Location of the *oppida* under study: T: Titelberg, H: Hrazany, M: Manching, and the abandoned site: B: Bibracte (Plan of Kaenel 2006: 21, fig. 2).

	Titelberg	Hrazany	Manching
Size	43 ha 2.7 km of ramparts	30 ha + 8-9 ha 2.1 km of ramparts	380 ha 7 km of ramparts
Location	On a promontory	On a promontory	In a plain
Atypical buildings	One, in large enclosed area	None	Many, spread over oppidum
Mediterranean imports	Coins, <i>amphorae</i> , kitchen ware.	Only one small object. No <i>amphorae</i> at all.	Coins, <i>amphorae</i> , <i>campanian</i> pottery, style and knowledge.
Cemeteries	Many La Tène D – Gallo-Roman period	None (not found?)	Two La Tène B/C Human bone deposits in LaTène D

Table 1: Main formal differences between the selected sites.

The three selected *oppidum* sites are indeed very different and located in a different geographical area. As comparability was not a selection criterion, there is unfortunately also a certain difference in the intensity of site excavation and publication. This reality is reflected in the slightly different length and depth of the analytical chapters.

3. Terminology.

Certain commonplace terms are in fact loaded. To make clear statements and to avoid interpretive problems I will explain my interpretation of these terms in this section.

The term 'aristocracy' refers to a group of people with inherited status, also called 'class'. For me the word 'elite' does not refer to aristocracy or class, unless the inherited status of the elite is clearly proven. In that case I use these two terms and add evidence. I will use the term 'elite' as an open concept, meaning 'an individual or a group of people who are for some reason differentiated from the others'.

The term 'central place' is a concept with a wide range of interpretations, from political dominance over a territory to mere central marketplace (Chapter 2). I will only use the term 'central place' if an *oppidum* site clearly suits one of the existing central place models. The term 'centre' I will use to indicate a place that offers services to other settlements, that is central for some reason.

The word 'farmstead' is generally used for an isolated house in an agrarian society. But, specifically in the case of *oppidum* studies it often refers to an enclosed complex of buildings that is in many cases assumed to be an elite residence. To avoid the assumption of an elite building I will not use the term 'farmstead', but rather 'enclosure' or 'isolated structure'.

The meaning of 'sanctuary' is a complex issue. It implies a religious or ritual function. But all too often the term sanctuary is used for any building which does not have a clear domestic function and/or which has an unusual architecture. For instance, round or polygonal buildings with an enclosing ditch are generally considered sanctuaries (Schubert 1983: 14). To avoid this loaded term, I will refer to such buildings as 'atypical building', and only call them 'sanctuary' when there is enough evidence to suggest a religious function. But even then, to me a sanctuary is a public place for religious and non-religious activities alike.

With 'traditional urban features' I referred to: a large size, a considerable permanent population, an urban lay-out which includes settlement planning, ramparts, public buildings, public amenities, public places, and functional zoning, as well as a role as political, or at least as economic centre. These are the criteria used in the current debate on the urbanism of *oppida*. They are also recurrent in the modern definition of the ancient city.

Some German or French archaeological terms are too specific to be translated, especially local types of objects. In that case the term is printed in italics and explained in a footnote.

Chapter 4: The *oppidum* of Manching, Germany

1. Introduction to the archaeological site

The *oppidum* of Manching lies in South Bavaria, Germany, to the east of the present town of Manching. This town has gradually expanded into the eastern area of the former *oppidum*, which is clearly visible on the aerial photograph (Figure 1). An airport and runway cover a large part of the western area (Figure 1; Sievers 2003: 14). The *oppidum* is named after the present town. It is not connected to any place name in ancient literature and its original name has sunk into oblivion. The Roman settlement or *mansio*¹², which arose afterwards at the site, was called Vallatum in the '*Itinerarium provinciarum Antonini Augusti*¹³' and '*Notitia Dignitatum*¹⁴' (Sievers 2003: 146).



Figure 1: Aerial photograph of 1955. The large circle which covers almost the entire photograph indicates the *oppidum* rampart. Other significant features are the present fort and village of Manching in the west, and the airport and runway in the east. (Sievers 2003: 14, fig. 5).

¹². A *mansio* is an official stopping place on a Roman road.

¹³. The *Itinerarium provinciarum Antonini Augusti* is a Roman travel guide from the 3rd century AD. In 17 itineraries it describes places in the Roman Empire including distances (Radke 1979: 1489-1490).

¹⁴. The *Notitia Dignitatum* is a reference book for internal governmental officials. It informs on the divisions of the empire, of the army and the offices (Lippold 1979: 166).

Manching was situated in a flat plain at the confluence of the Danube and the Paar. It was a large *oppidum* with about seven kilometres of ramparts defining an area of 380 ha (Knopf et al. 2000: 143).

The *oppidum* has suffered major damage in the last centuries. The west part of the ramparts has been demolished because it was used as a stone quarry for the town of Manching. Moreover, the construction of a fort in 1879 and the expansion of the town destroyed a large part of the west *oppidum* area (Figure 1; Sievers 2003: 9-10). In 1936, large sections of the east *oppidum* area, including parts of the ramparts and the cemetery of Hundsrucken, were destroyed to build an airfield (Sievers 2003: 11-13). During World War II, allied bombing raids targeted the airfield and after the war, the expansion of the airport caused further damage (Sievers 2003: 14). In recent decades, development plans threatened the north and south part of the *oppidum* and the threats continue (Sievers 2003: 15-16). Due to these building activities, the excavations have mainly been rescue excavations. As a result, the excavated areas are not selected on the basis of their archaeological significance (Maier 1992: 7).

Because Manching is a flat settlement, the archaeological remains did not suffer much erosion, except in the area near the Paar, and they were not covered with woods (Sievers 2003: 9, 19). A culture layer is preserved in the central area, while it is only thin in the south and completely lacking in the north and the Altenfeld (Gebhard 1989: 32; Sievers 1998: 620). As a result, settlement stratigraphy is minimal and studies are concentrated on ditches, pits and other negative features (Boessneck et al. 1971: 2; Gebhard 1989: 26; Gebhard 1991: 67-70, Maier et al. 1992: 3). This should be taken into account when reading and interpreting the excavation results.

For centuries, the ramparts of the *oppidum* were a pronounced feature of the landscape. The earliest written account dates from 1417. The ramparts are clearly visible on old plans, as e.g. on the *Mappa* of 1603 (Figure 2; Sievers 2003: 9). They were considered Roman remains and related to Vallatum (Sievers 2003: 9). It was the army, stationed in the fort, who began to examine the ramparts and their vicinity. Officer Arnold was the first to interpret Manching as an *oppidum* (Sievers 2003: 10). In 1892-1893, Fink excavated the rampart, the area of the presumed gate and streets, as well as the cemetery 'Steinbichel' and the *Viereckschanze*. His work was resumed in 1902-1903 by Birkner and Weber. In 1907 Strehle opened additional

graves. When Reinecke used some Manching finds in his famous classification, Manching became internationally well-known (Sievers 2003: 11). In the period 1936-1938, when the airport was built, several rescue excavations revealed the Hundsrucken cemetery and part of the ramparts. The history association ‘*Historische Verein Ingolstadt*’ also managed to save various finds. In 1950, Reinecke collected the information in his ‘*Zur Geschichte und Topographie von Vallatum*’.

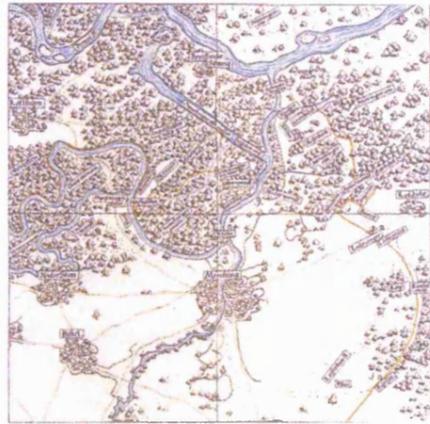


Figure 2: Plan of Manching in 1603 called *Mappa über das Ambt Reichertzhofen* (Sievers 2003: 9, fig. 1).

The first systematic excavations were the 1955-1973 excavations by Krämer. He examined the settlement density by trial trenches and he excavated the rampart and large parts of the central area. Later Schubert took over the lead of these excavations (Sievers 2003: 13-14). In 1965-1973 Schubert also examined the south part of Manching. In 1962-63 Gensen excavated the east gate. In 1984-1987 Maier worked in the north area. In 1996-1999 Sievers and Leicht excavated the Altenfeld area. From 1999 to 2003 onwards several areas near the south borders were excavated by Hüssen (Sievers 2003: 17). The location of the excavation areas is mapped in figure 3. In total, about 26 ha have been examined (Hüssen and Leicht 2003: 58). According to Sievers (2003: 17), Manching is the best studied¹⁵ *oppidum* in central Europe. The continuation of the Manching project depends on the plans of the *Bayerisches Landesamt für Denkmalpflege*. (Forschungsplan des deutschen Archäologischen Instituts für die Jahre 2005/2006. In: www.dainst.org/medien/de/forschungsplan.pdf: p. 51) The excavations are led by the *Römisch-Germanische Kommission* in cooperation with the *Bayerisches Landesamt für*

¹⁵. 16,478 m² in 1955-1961 (Krämer and Schubert 1970: 70) ; 858.39 m² in 1962-196 (Van Endert 1987: 2) ; 35,000 m² in 1965-1971 (Lorenz 2004: 2) ; 24,000 m² in 1984-1987 (Maier 1992: 8) ; 6 ha in 1996-1999 (Sievers 2002: 355) ; 1.5 ha in 1999-2000: 1.5 ha (Sievers 2002: 355).

Denkmalpflege, Archäologische Staatssammlung München, the city of Ingolstadt and the community of Manching (www.dainst.org/index_151_nl.html).

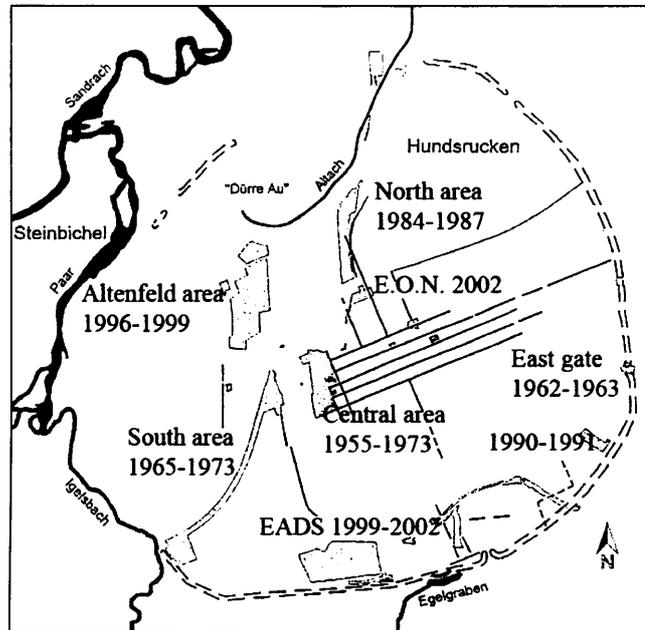


Figure 3: Excavation areas 1955-2002 (Sievers 2003: 18, fig. 14).

The results of the excavations are mainly published in the series '*Die Ausgrabungen in Manching*' and in the journal *Germania*. Not all the excavations are fully published yet. From the central area, only the areas excavated in 1955-1961 are published in volume 1 (Krämer and Schubert 1970), additionally a review of the 1961-1974 excavations appeared in volume 16 (Lorenz and Gerdson 2004). The north area is published in volume 15 (Maier et al. 1992), the east gate in volume 10 (Van Endert 1987). A preliminary report from the Altenfeld excavations appeared in *Germania* (Sievers et al. 1998; Sievers 2002). The full publication of the Altenfeld area, the 1955-1973 excavations and the 1999-2003 excavations, is forthcoming (Forschungsplan des deutschen Archäologischen Instituts für die Jahre 2005/2006. In: www.dainst.org/medien/de/forschungsplan.pdf: 50-53). In addition, several volumes of the series '*Die Ausgrabungen in Manching*' are dedicated to specific categories of finds (Kappel 1969; Maier 1970; Boessneck et al. 1971; Pingel 1971; Jacobi 1974; Stöckli 1979; Lange 1983; Krämer 1985; Gebhard 1989; Kellner 1990; Gebhard 1991; Van Endert 1991). Two other publications are planned (Forschungsplan des deutschen Archäologischen Instituts für die Jahre 2005/2006. In: www.dainst.org/medien/de/forschungsplan.pdf: 50).

2. The *oppidum* in its regional context: Why this particular location?

The *oppidum* was not located on a height, as most *oppidum* were. Yet, it was naturally defended since it was surrounded by moors and by the rivers Paar and Danube (Figure 4). At the time of the *oppidum*, the Danube followed the line of the Sandrach stream (Figure 3) and reached to a distance of one kilometre of the *oppidum* (Krämer and Schubert 1970: 24; Peters 2002: 211). As the remains of river banks are found near the north rampart, it is likely that a tributary of the Danube was enclosed within the ramparts. That tributary was probably the now silted Dürre Au¹⁶ (Figure 3; Maier et al. 1992: 349, 355-356). The *oppidum* was safe from flooding thanks to its location on a sand and gravel ridge (Knopf et al. 2000: 143). However, the *oppidum* area was very marshy, especially near the Igelsbach¹⁷ which was marshy until the 17th-18th century AD (Sievers 2003: 107). As a result, drainage measures were taken in the peripheral *oppidum* area. For instance, the ditch system near the Dürre Au in the north of the Altenfeld (Figure 5) is likely to be an overflow system (Sievers 2003: 39). In conclusion, the *oppidum* was safe from flooding and to some extent defended by the surrounding water, but it included marshy terrain that was not the most favourable settlement land.

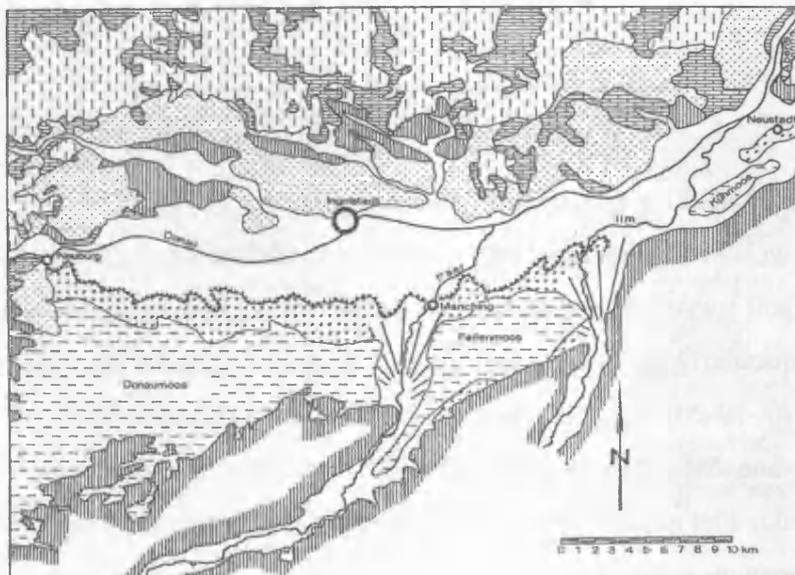


Figure 4: Geology of the region (Krämer and Schubert 1970: p 18, fig. 1).

¹⁶ There is a slight confusion about the identification of the Dürre Au. According to Sievers (2003:19) Dürre Au was an old arm of the Danube, according to Schramedei and Brunacker (in Maier et al. 1992: 420) it was the arm of the Paar.

¹⁷ Sievers calls this marshy area the south east although it is the Igelsbach area which to my opinion lies in the south west.

Water, one of the basic requirements for settlement survival, was abundant at Manching. First of all, it was located near the rivers Paar and Danube, and near various streams (Figure 3). Second, there were numerous springs within the settlement area. For instance, in the Altenfeld area there are many water sources and a possible basin to collect water (Figure 5; Sievers et al. 1998: 623). The Altach is still a water source up to today (Krämer and Schubert 1970: 24). Water supply was permanently at hand in Manching.

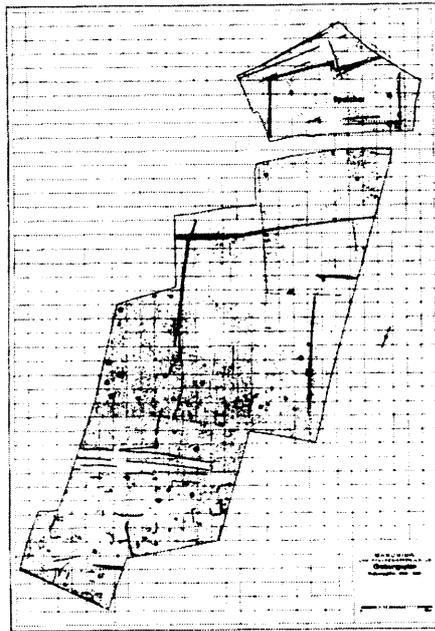


Figure 5: The Altenfeld excavation area: postholes, ditches and water sources (black dots) (Sievers 2003: 51 fig. 48).

Manching is surrounded by agricultural land according to Sievers (2003: 19). Indeed, grain types which do well in wet environments are found in the *oppidum* (Maier et al. 1992: 455). Yet, geological soil survey demonstrates that the soil in the region was poor in nutrients and therefore not particularly good for agriculture. It might rather have been used as pastureland (Brunnacker 1970: 19-20). The best agricultural land was situated to the north of the Danube valley (Krämer and Schubert 1970: 17-20, Sievers 2003: 19). Brunnacker (1970: 19-20) therefore concludes that agriculture was definitely not the motive for founding an *oppidum* at this particular location.

The vicinity of iron ores might have been significant for the foundation and growth of the *oppidum* (Sievers 2003: 76). Bog iron smelting places are found in the Feilen moors and the Danube moors close to Manching (Figure 4 and 6). The smelting places clearly date back to

the time of the *oppidum*. Test pits were even found seven kilometres from the *oppidum* (Krämer and Schubert 1970: 46; Jacobi 1974: 245). Jacoby (1974: 246) suggests that iron was also smelted within the *oppidum* area, though on a smaller scale. On the other hand Krämer and Schubert (1970: 46) argue that its bog iron had run out by the time of the *oppidum*. Iron was definitely smelted in the vicinity of Manching. In the south Danube region, iron smelting happened on a substantial scale. It started in Middle La Tène, was in its prime in Late La Tène, and came to an end in the Roman period (Reinecke 1934/35: 140-141, 159). This suggests that iron quarrying in the region coincided largely with the settlement period of Manching. Therefore, it is likely that iron ores might be one of the decisive criteria for *oppidum* foundation. Yet, it is not clear if local quarrying happened on a large scale and if it was sufficient to fulfil the *oppidum* need for iron (Krämer and Schubert 1970: 47). Isotope analysis showed that the bog iron ores near the Danube indeed constituted the main resources for iron production of Manching (Schwab et al. 2009: abstract), but additional iron import was necessary. The iron for the nails of the *murus gallicus* rampart, for instance, was imported from Michelsberg near Kelheim, 50 km down the river from Manching, and from Berching-Pollanten, 40 km north of Manching (Maier et al. 1992: 351-352). In conclusion, iron quarrying was important in Manching, but it was not enough to fulfil local needs, and therefore definitely not enough to export and distribute iron. Manching was not a dominant centre of iron production.



Figure 6: Iron smelt places near Manching: black dots (Schäffer 2002: 227, fig. 8).

The stone used for the ramparts and tools was mostly quarried in the vicinity, mainly south of the *oppidum* and immediately north of the Danube (Krämer and Schubert 1970: 35; Knopf et al. 2000: 144). The limestone for the ramparts originates in the Danube region at 30 km

distance (Kellner 1990: 13; Maier et al. 1992: 351-352). Particular kinds of stone, for instance vulcanite, had to be imported as it was definitely not quarried in the vicinity (Trappe 1998: 654-655). Wood for construction of ramparts and houses was also available in the near vicinity (Knopf et al. 2000: 144). A pine wood covered the gravel ridge before settlement and oak forests were only a few kilometres away (Sievers 2003: 20). Clay for pottery is not present in the settlement area and must therefore have come from the surrounding countryside, according to Sievers (2003: 64).

The *oppidum* is said to be located at the confluence of two major communication routes: an east-west route along the river Danube and a south-west route along the river Paar (Knopf et al. 2000: 143; Sievers 2003: 19). The Danube was definitely a significant communication route and Manching had a direct connection to the river. Its harbour was probably located near the Dürre Au, on the Altag (Figure 3). But Manching's location is not outstanding compared to other settlements along the Danube (Figure 11). The significance of a second route along the Paar can be questioned (Lorenz and Gerdson 2004: 137). It is not a major river. In addition, Manching was also accessible by long-distance roads along the Danube valley (Figure 7). The significance of these roads is validated by their continuation in Roman times and by the establishment of a Roman *mansio*, Vallatum, at the place of the former *oppidum* (Krämer and Schubert 1970: 50-51). In conclusion, Manching was favourably located near main communication routes, but control of these routes or long-distance trade along them is not clearly demonstrated.

The *oppidum* was not an isolated structure. On the contrary, it is related to other significant landmarks in its near vicinity: an atypical building called the sanctuary of Zuchering, three *Viereckschanzen* and three La Tène B/C burial places (Figure 7 and 8). The burial places are part of the early *oppidum* history (Section 4). A cremation burial and cemetery with at least 22 burials are found within the *oppidum* area. A second cemetery containing at least 43 burials is found west of the area. The three burial places will be described and discussed in section 4. According to Knopf et al. (2000: 144), there were also settlements and isolated buildings in the *oppidum*'s vicinity, but they do not add any evidence or location.

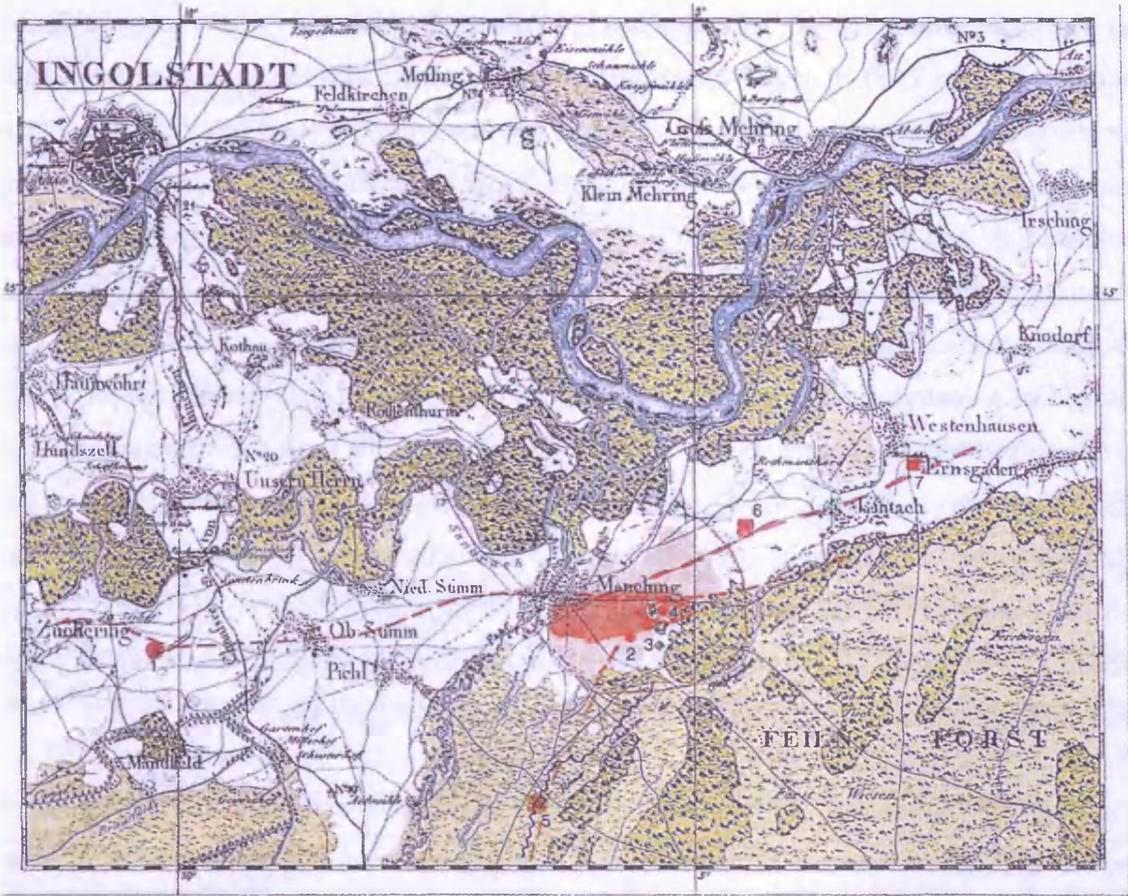


Figure 7: The vicinity of Manching with long-distance routes (red line), buildings with possible cult function (1-4) and *Viereckschanzen* (5-7). The background plan dates to 1815 (Sievers 2003: 20, fig. 16).

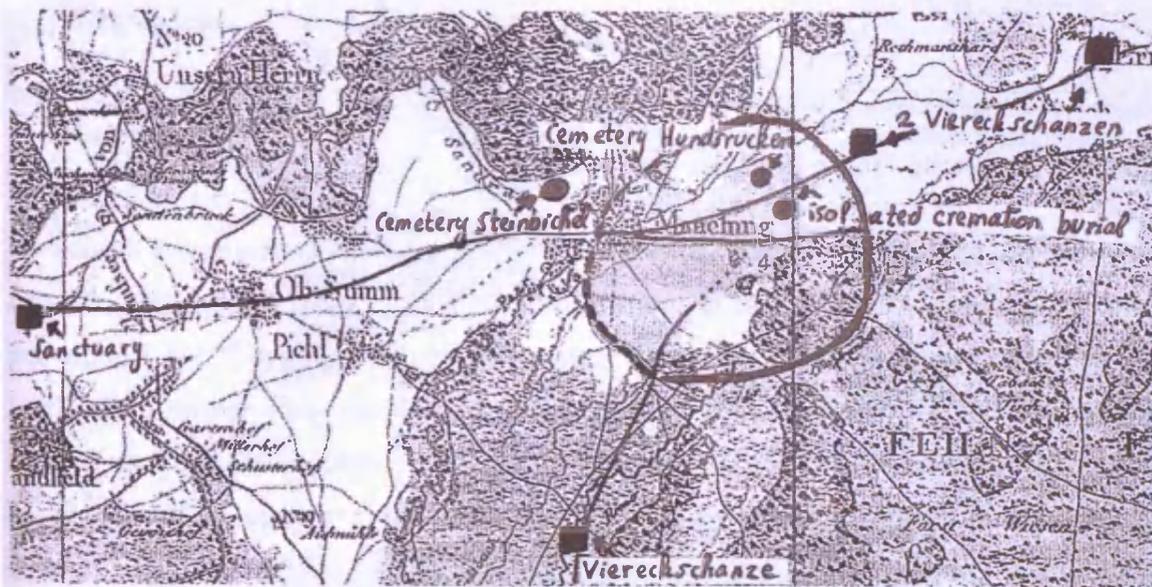


Figure 8: Plan of the *oppidum*, the sanctuary of Zuchering, the *Viereckschanzen* and the La Tène B/C burial places (based on Sievers 2003: 20, fig. 16).

The atypical building called the ‘sanctuary of Zuchering’ lies five kilometres west of Manching (Figure 7: 1). It was located along a significant road to Manching at barely one hour distance. Because it was clearly visible from Manching, it must have stood in close relation to the *oppidum* (Schubert 1995: 131-132). Its architecture is similar to that of the sanctuaries A and C of Manching (Schubert 1995: 163, 173). This confirms its close connection to the *oppidum*. The sanctuary of Zuchering was contemporary to the *oppidum* as it is dated after La Tène B/C and before the early Imperial period (Schubert 1995: 141). It consisted of a central open structure with six posts, and a closed gallery with ten posts and two opposite entrances (Figure 9a; Schubert 1995: 142-147). The same construction was used in the second phase (Figure 9b and c; Schubert 1995: 142, 149, 156). It is not clear if the building belonged to a larger context, for instance a settlement or a *Viereckschanze*, since no other pre-Roman settlement traces are visible on aerial pictures (Schubert 1995: 139, 177). Its function as a sanctuary is mainly based on its architecture. It was built according to plans which continued to be used for Gallo-Roman sanctuaries (Schubert 1995: 163, 173).

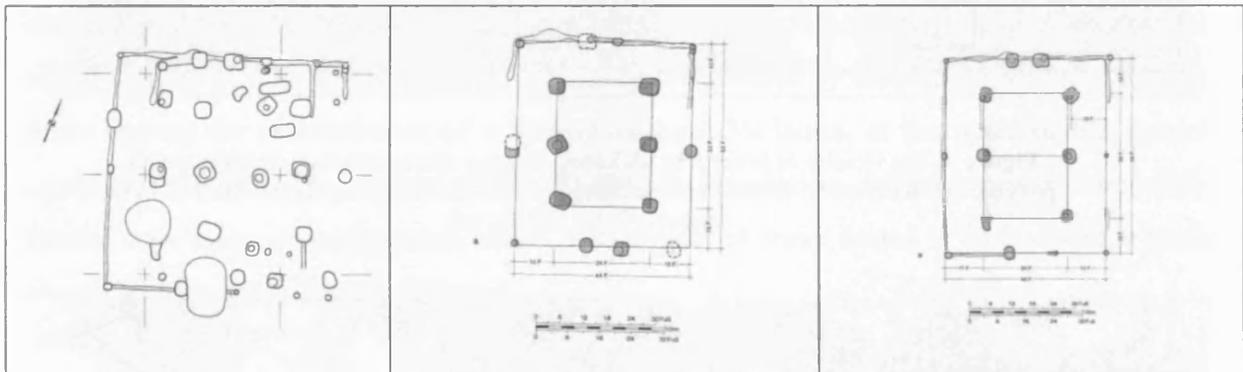


Figure 9a: General floor plan of the sanctuary at Zuchering (Schubert 1995: 46, fig. 13a).

Figure 9b: Floor plan of the sanctuary at Zuchering phase I (Schubert 1995: 148, fig. 14a).

Figure 9c: Floor plan of the sanctuary at Zuchering phase II (Schubert 1995: 153, fig. 16a).

Three *Viereckschanzen* are found outside the *oppidum*. One *Viereckschanze* was located 1.5 km along the road south of Manching; one was located about the same distance along the east road and a third one just outside the ramparts along that east road (Figure 7: 5-7; Krämer and Schubert 1970: 44). The two *Viereckschanzen* in the east are only known from aerial photography (Sievers 2003: 143). The *Viereckschanze* in the south is better known but it is not extensively excavated (Figure 10). It was located on a plateau in the moors on agriculturally useless terrain. The *Viereckschanze* measured 80 x 86 x 129 x 131 m. The location of the gate is not certain (Krämer and Schubert 1970: 44-46). *Viereckschanzen* generally date to La Tène D. They are contemporary to *oppida*. The function of

Viereckschanzen is highly debated (discussion in appendix 3). I support the view that *Viereckschanzen* are places for profane and religious activities.

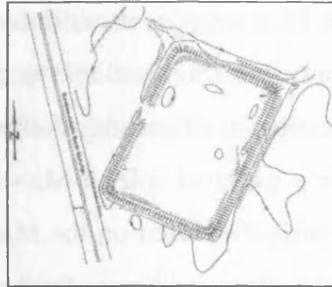


Figure 10: The *Viereckschanze* south of Manching (Krämer and Schubert 1970: 45, fig. 7)

Other *oppida* and open settlements were within reach, mainly by rivers (Figure 11). The *oppidum* of Kelheim (Figure 11: 4) is the closest neighbour of Manching. Intensive contacts are evidenced, for instance by the import of iron and the similarity in artefacts (section 2 and 7). Kelheim is situated 40 km east of Manching. It is a very large *oppidum* of 600 ha. Settlement started in La Tène B1 and lasted until La Tène D1. Iron production is thought to be the economic basis of Kelheim because iron was smelted in the *oppidum* and in its near vicinity. Kelheim is also assumed to control the trade route along the Danube (Knopf et al. 2000: 144-146). However, both economic functions are debatable. Iron smelting was intensive in the whole south Danube region (section 2).

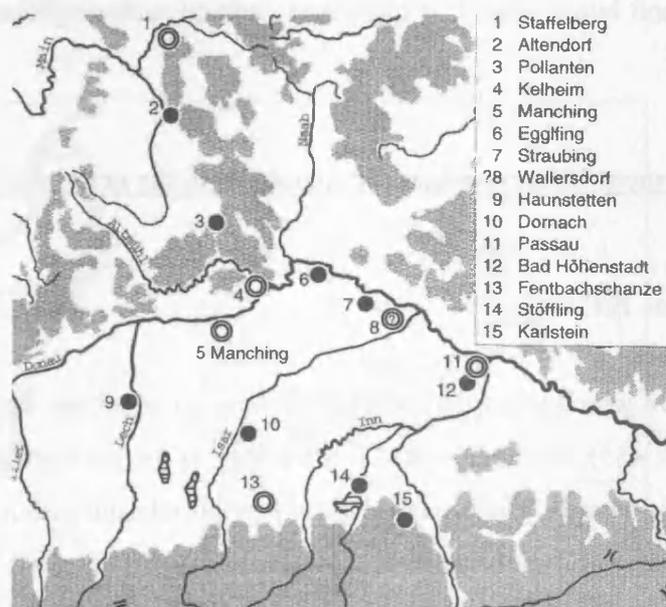


Figure 11: Fortified settlements (open circles) and open settlements (black dots) in the region (Schäfer 2002: 220, fig. 2).

Manching also had a close connection to the open settlement of Berching Pollanten (Figure 11: 3). Berching-Pollanten exported iron to Manching (section 2). The coins found at Berching-Pollanten had the same ratio as those in Manching: 88.5 % of coins are silver, 5% gold and 6% others (Kellner 1990: 171). *Oppida* are commonly considered to be political and economic central places in relation to other settlements (chapter 1). The same has been assumed about Manching in relation to Berching-Pollanten (Knopf et al. 2002: 147). However, there is no evidence for a political role of Manching over Berching-Pollanten, or the economic dependence of Berching-Pollanten on the Manching market. The central place relation is possible, but there is no clear evidence. Furthermore, the *oppidum* of Kelheim seems, at first sight, better located to be a central place for Berching-Pollanten than the *oppidum* of Manching (Figure 11: 3 and 4).

Conclusion

Manching is located in a plain, contrary to most *oppida*. It is safe from flooding and it is naturally defended by rivers and moors. There is enough supply of water and building materials. Yet, the location is not chosen on grounds of suitable settlement terrain, as it is too marshy, or most favourable agricultural land. Iron was smelted in the close vicinity of Manching. But iron quarrying and production was not sufficient to fulfil the *oppidum's* need for iron. The *oppidum* was an integral part of a wider cultural landscape including a sanctuary, *Viereckschanzen* and burial places. It had close contacts with neighbouring *oppida* and open settlements.

3. Settlement history: when did people walk the ground of Manching?

Before Tène B/C

The gravel ridge on which the *oppidum* of Manching emerged had been settled for centuries (Maier et al. 1992: 455). Archaeological finds testify to the presence of people at Manching from the Neolithic onwards. There were Bronze Age burials and presumably also Bronze Age settlements (Krämer and Schubert 1970: 21; Maier et al. 1992: 358). There are only a few finds from the Hallstatt period, but there is evidence for iron quarrying at the south border of the later *oppidum* (Sievers 2003: 22). The La Tène A and early La Tène B period are only

represented by a few finds (Sievers 2003: 22). Krämer (1985: 13) interprets this as a gap and argues that the La Tène B/C settlement is a new start. Settlement is not clearly demonstrated before La Tène B/C, but there is a continuity of human activity and maybe also of the religious significance of the place. This is suggested by the presence of a Hallstatt sword underneath a La Tène C/D sanctuary. The location of the La Tène B/C cemetery Hundsrucken near Bronze Age burials may equally symbolise the continuity of a ritual tradition.

La Tène B/C

In La Tène B/C, significant features emerged: three burial places, three buildings interpreted as sanctuaries and the first settlement core (Figure 12). A cemetery called 'Hundsrucken' is located within the *oppidum* area, close to Bronze Age and Hallstatt burials (Krämer 1985: 32-33, 45, 91). The cemetery contains at least 22 inhumation graves (Sievers 2003: 25). Unfortunately, the cemetery is destroyed and it has not been systematically excavated. There is no plan left (Krämer 1985: 91). An isolated cremation burial is located 600 m south of the Hundsrucken cemetery, within the *oppidum* area (Figure 13b). It contains cremation remains deposited in a burial coffin which has the size of an inhumation coffin (Krämer 1985: 97). A cemetery called 'Am Steinbichel' is situated west of the *oppidum* at the left bank of the Paar (Figure 13a). It contained at least 43 inhumation burials (Sievers 2003: 25). From 1893 to 1939, minor excavations took place of which only the 1893 excavation generated a plan (Figure 13a). The cemetery is not completely excavated (Krämer 195: 71). The burials clearly show that people were connected to the place Manching.

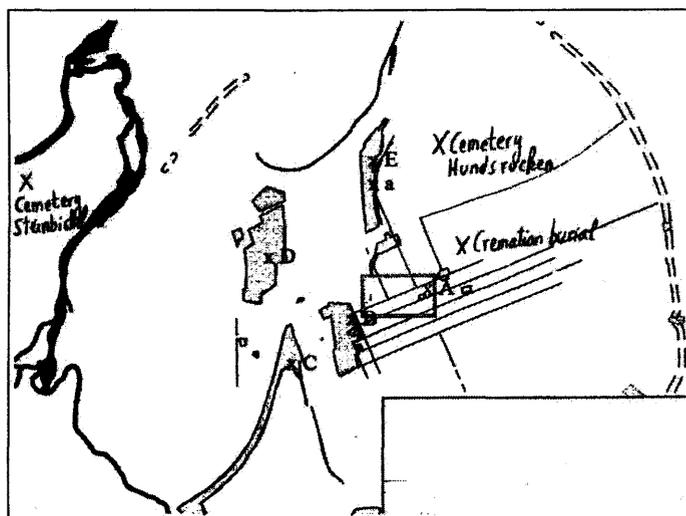


Figure 12: Location of the La Tène B/C sanctuaries (A-E), cult tree (a), cemeteries and cremation burial



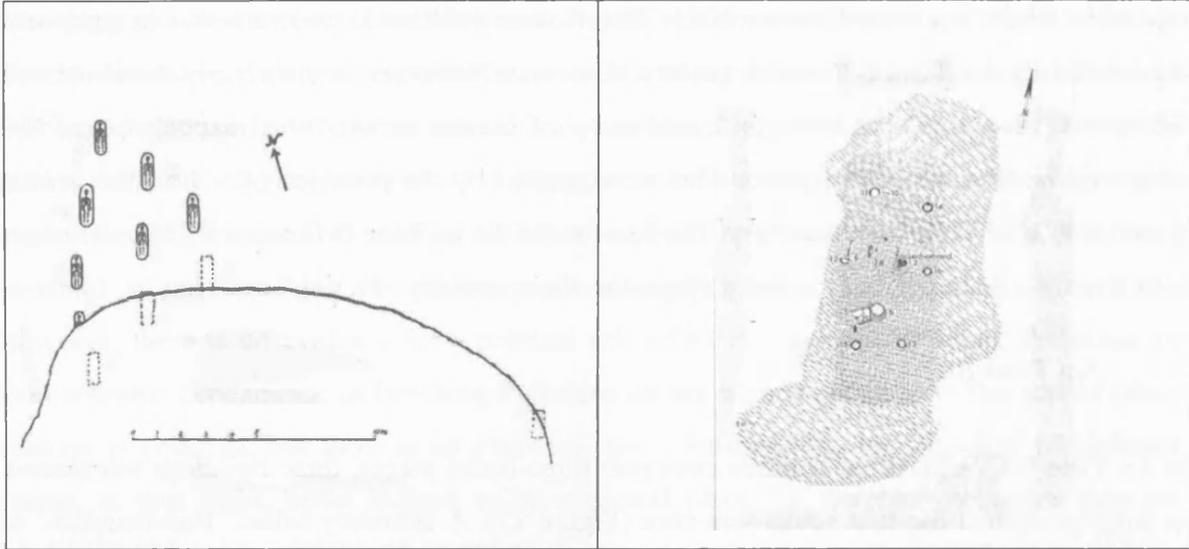


Figure 13a: Cemetery Steinbichel (From Krämer 1985: 72, fig. 11).

Figure 13b: Cremation burial in the *oppidum* area (Krämer 1985: 98, fig. 14).

Three buildings interpreted as sanctuaries inside the *oppidum* area are definitely built in La Tène B/C (Table 1; Sievers 1991: 153). Sanctuary A is a square ditch enclosure with a square and later polygonal inner structure. It is significantly located in the very heart of the *oppidum* area. This is also the place where the first settlement core is found. The foundations of sanctuary A contain a Hallstatt sword which indicates the long ritual continuity of the place. Sanctuary B is a square ditched enclosure with an inner structure. Sanctuary C is a complex of atypical structures. Apart from these sanctuaries there are other indications for ritual activity in La Tène B/C, such as deposited objects and the extraordinary golden cult tree that dates to La Tène C (Figure 61-62; Maier 1991: 249; Sievers 2003: 27). The sanctuaries and deposits are extensively discussed in section 8. They clearly indicate that the *oppidum* area was used for ritual activities in La Tène B/C.

Sanctuary A	La Tène B-D	end 4 th – 1 st century BC
Sanctuary B	La Tène B-C	3 rd - 2 nd century BC
Sanctuary C	La Tène B/C-D	3 rd or 2 nd century BC ¹⁸ - 1 st century BC
Sanctuary D		2 nd century BC - .
Sanctuary E	La Tène C2 - .	2 nd century BC - .

Table 1: Chronology of sanctuaries A-E based on Sievers 1991: 149 and Sievers 2003: 30-34.

¹⁸ It is not clear if sanctuary C originates from the 3rd or the 2nd century BC. Sievers (2003: 32-34) refers to sanctuary C as ‘the large complex’ (*der grossen Umrisse*) and as ‘the sanctuary in the south area’ (*das Heiligtum der Südumgebung*). In the summary on page 34 she states that the large complex dates to the 3rd century BC and the sanctuary in the south area to the 2nd century BC.

The La Tène B/C cemeteries and sanctuaries allude to the existence of an early settlement at Manching. Indeed, the examination of artefacts indicates that there was a settlement in the centre of the *oppidum* area in La Tène C (next pages). This is innovative, since *oppida* in south-Germany are traditionally thought to emerge in La Tène D (Krämer 1985: V). Some scholars, for instance Gebhard (1991: 182) and Stöckli (1979: 186), argue that settlement begins in La Tène B. Their theory is based on glass arm rings, ceramics, *fibulae*, and *amphorae*. However, there are no settlement remains left from that period (Gebhard 1991: 4, 183). Therefore La Tène C is mainly supported as the first settlement period (Krämer 1985: V; Van Endert 1987: 72; 1991: 106,111; Lorenz and Gerdson 2004: 128).

The question is how the La Tène C settlement emerged, and why at that particular location. In La Tène B, prior to the settlement, sanctuaries were built (Table 1) and at least a part of the cemeteries may already have existed. From the presence of two cemeteries, Sievers (2003: 27) concludes that there were different settlement cores which later fused together to the one large settlement. Yet, alternative interpretations are possible. There may have been only one settlement with different or successive cemeteries. There may have been only one settlement with a cemetery, which was rebuilt at successive locations. The latter theory is appealing, as it fits with Krämer's (1985: 56) observations that La Tène B/C settlements were short-lived and fluctuating. In La Tène C1 settlement was significantly located near the older sanctuary A (Sievers 2003: 30). It is not surprising that a settlement emerged near a sanctuary. Sanctuaries were significant landmarks that symbolised continuity and the connection of people to the place. Sanctuary A is even more significant, as it is the heart of the *oppidum* area and it represents a long ritual continuity by means of the Hallstatt sword. The sanctuary is located on a large paved open space that is thought to be a market place and meeting place used for communal activities such as elections, processions or other sacred proceedings (Knopf et al. 2000: 144; Sievers 2003: 30). We can conclude that Manching started as a ritual place that was marked by sanctuaries where people gathered and later settled down.

La Tène C - D: settlement expansion

The earliest settlement, in La Tène C1, was situated in the centre of the *oppidum* along the road. This is indicated by the study of glass arm rings, *fibulae*, sappelite rings, and animal bones (Figure 14a and 14b; Gebhard 1989: 33; Stöckli 1974: 370-371; Gebhard 1989: 32).

The La Tène C1 settlement was merely a strip up to five ha along the road (Lorenz and Gerdson 2004: 129).

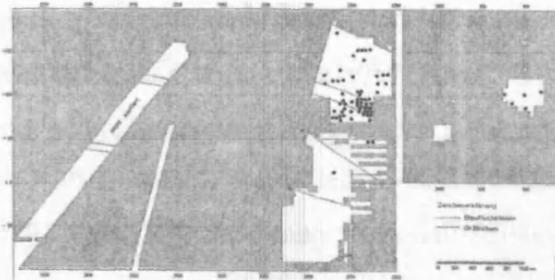


Figure 14a: Distribution of saponite rings in La Tène C1 (Stöckli 1974: fig. 6).

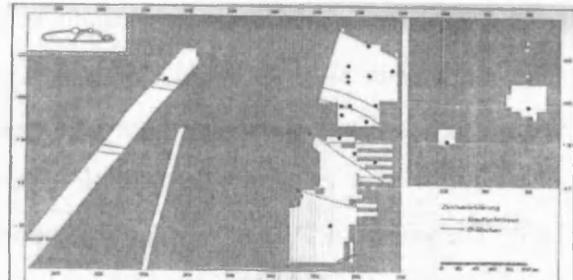
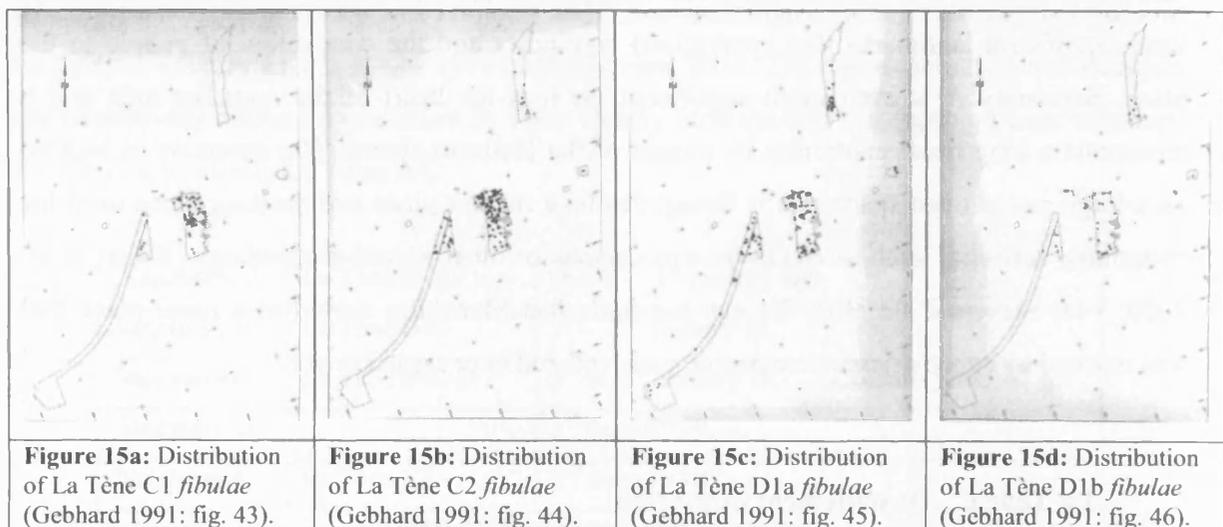


Figure 14b: Distribution of La Tène C1 *fibulae* (Stöckli 1974: fig. 3).

The settlement gradually expanded. This is clearly shown by the spread of *fibulae* (Figure 15). In La Tène C2, the settlement expanded to the north and south (Figure 15b). In La Tène D1, the settlement reached the south borders of the *oppidum* area (Figure 15b). This model is confirmed by other finds, such as bronze rings and ceramics (Van Endert 1991: 109; Maier et al. 1992: 107-108, 134). But recent excavations show that in La Tène C1, there was also a settlement in the Altenfeld area (Sievers et al. 1998: 636), north of the presumed settlement core. The amount of evidence from the last *oppidum* phase, La Tène D1b is smaller (Figure 15d). The settlement appears to have faded out.



For some areas successive changes in settlement lay-out could be identified. Gebhard (1989: suppl. 1) discerns five different phases in the central area (Figure 16). Maier et al. (1992: 57-64) identified three different phases in the north area (Figure 17). These studies clearly show

that the settlement was constantly changing. Buildings and other structures were used or abandoned, reshaped and newly created. Manching was a dynamic settlement.

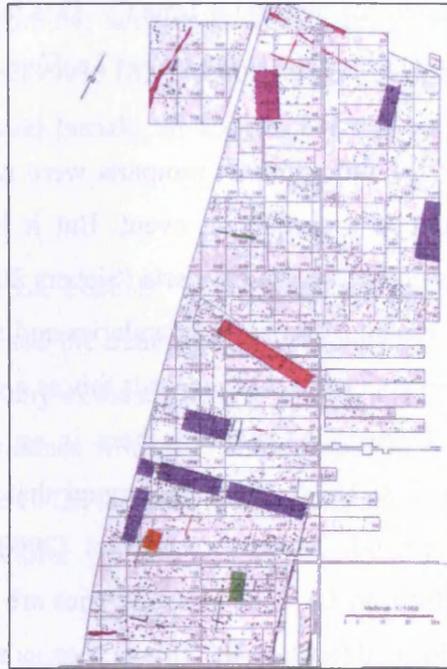


Figure 16: Different phases of the structures in the central area. These phases belong to the late Middle La Tène period (blue), to the late Middle La Tène – Late La Tène period (green) and to the Late La Tène period (purple, red, orange) (Gebhard 1989: suppl. 1).

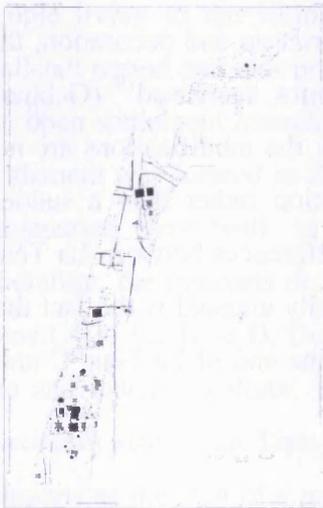


Figure 17a: The earliest and early phase in the north area (Maier et al. 1992: suppl. 5).

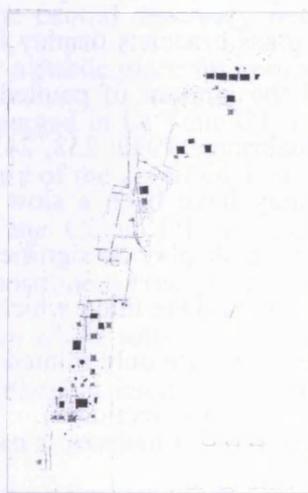


Figure 17b: The middle phase in the north area (Maier et al. 1992: suppl. 6).

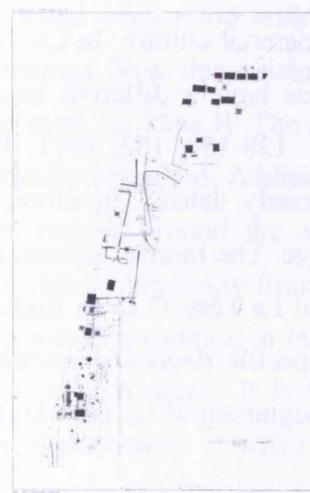


Figure 17c: The latest phase in the north area (Maier et al. 1992: suppl. 6).

Transition La Tène C – La Tène D: break or evolution

La Tène D is said to be accompanied by various changes. These changes are often considered to be all contemporary. As a result, the period La Tène C – D is labelled as ‘transition period’. Sievers (2003: 94) believes in a major crisis at the end of La Tène C.

First of all, in La Tène C2 or D1 the *oppidum* ramparts were constructed (Section 3). The construction of ramparts is indeed a significant event. But it is not the beginning of the settlement. The settlement existed before the ramparts (Sievers 2003: 104). Second, Schubert (1983: 7-8) noticed the abandonment of property boundaries and streets, and modifications in the orientation of buildings. Sievers (1989: 118) regards this as a change in settlement lay-out in the La Tène C- La Tène D period. However, there is no clear chronology for these modifications. Schubert (1983: 7-8; 1994: 135) even argues that a change in settlement lay-out did not happen in that period. Moreover, Sievers (2003: 112) does acknowledge continuation in architecture. Third, in La Tène D, cemeteries are lacking and a specific two-phased cremation rite was performed (section 8). This is seen as a major change in burial rite (Maier et al. 1992: 232). However, in fact it was rather a gradual evolution. The two main elements of the rite had already started in La Tène B/C: cremation (Krämer 1985: 45-47) and the custom to separate specific bones from the body (Chapter 9). The longevity of some sanctuaries also indicates the continuity of ritual. Finally, there are also some modifications in the material culture. In La Tène D, glass bracelets display less variation and decoration, the *fibulae* have a different length and the amount of painted ceramics decreased¹⁹ (Gebhard 1991: 128-134, 182; 1991: 45; Geilenbrugge 1990: 233, 243). But the modifications are not accurately dated. Therefore, there may have been a slow evolution rather than a sudden change. The bronze objects, for instance, display no significant differences between La Tène C and La Tène D (Van Endert 1991: 4, 8). One thing which is really unusual is the fact that the specific *Regenbogenschüsselchen* coins are only minted from the end of La Tène C until the beginning of La Tène D (Kellner 1990: 40; Section 6).

Sievers (1989: 113, 116, 118; 1991: 146, 149, 153) concludes from the deposits, a change in weapon finds and the end of sanctuary B that at least part of Manching was violently destroyed at the end of La Tène C. Sanctuary B did come to an end, but there is no particular

¹⁹ The conclusions of Geilenbrugge are based on the analysis of pits in the north excavation.

concentration of weapons or human bones near the sanctuary, that would indicate increased violence (Sievers 1991: 149). Furthermore, the deposits are not accurately dated. The large weapon fragments are probably restricted to La Tène C and to the central area. They are often mutilated and destroyed (Figure 64; Section 9). In fact, bent weapons rather belong to a ritual act than to a combat. Sievers (1991: 153) acknowledges that the bent weapons are similar to those found in sanctuaries and burials. In section 8 I will argue that they were originally exposed in sanctuary B.

Some things did change in La Tène D. The settlement and material culture was slightly modified, and the burial rite and the treatment of weapons changed. But these changes do not constitute a sudden break. Many of these changes started in La Tène C. In conclusion, it may be inappropriate to lump evidence from the whole *oppidum* period together into one major change at the end of La Tène C. On the contrary, there is strong evidence for continuation, for instance of ritual and architecture.

Conclusion

Manching was founded in an area with a ritual history from the Bronze Age until the Hallstatt period. In La Tène B/C, the place was marked by sanctuaries and cemeteries, presumably for people living in the vicinity. The central sanctuary marks the ritual connection with the Hallstatt period and was probably a public place for common gatherings. Near this sanctuary, the open settlement Manching emerged in La Tène C1, or maybe even La Tène B. The first settlement was located in the centre of the *oppidum* area and gradually expanded. Additional sanctuaries were built. In La Tène C2 or D1, ramparts were erected around the area. Therefore, the ramparts do not constitute a breakpoint. There is a clearly continuity from La Tène C1 to La Tène D. During the whole settlement period there was an evolution in burial rite and material culture. The settlement itself was also dynamic and changing. It had its maximum size in La Tène D when it reached the ramparts. It is inadequate to consider the ramparts as the sign of a new start, as the start of the *oppidum* settlement (e.g. Sievers 2003: 112). I prefer to include the earliest settlement in the *oppidum* history.

4. The ramparts and gates: Defence or symbol?

Circular ramparts

The course of the ramparts is clearly visible from the west bank of the Altach in the north to the Igelsbach in the south-west (Figure 18). But, some sections are destroyed by road works, construction works and war damage. The west and north part of the ramparts have completely disappeared due to erosion and human activity, especially in the vicinity of the village. Stones of the rampart are used as building material for the present church and many old houses. The former course of the ramparts can be reconstructed on the basis of stone remains in the mound of the church, as well as in the north of the village, in Steinau and the Dürre Au (Krämer and Schubert 1970: 26-36; Maier et al. 1992: 427).



Figure 18: The course and trenches of ramparts (Van Endert 1987: suppl. 13).

The ramparts are remarkably circular. This circular form is not compulsory from the geographical point of view. On the contrary, the construction of the circular ramparts required to divert the Igelsbach and Egelsgraben, which normally ran across the *oppidum* area into the Danube (Figure 19 and 20). The ramparts had to cross wet depressions and had to be interrupted for the wetland 'Lausgrub' (Figure 19). Even marshy ground, unsuitable for settlement, had to be included within the *oppidum* ramparts (Figure 20; Sievers 2003: 107). The ramparts are not primarily designed for defence purposes either. The ramparts are seven km long, which is too long to be easily defended. Furthermore, the area near the ramparts on the defenders' side is marshy terrain.

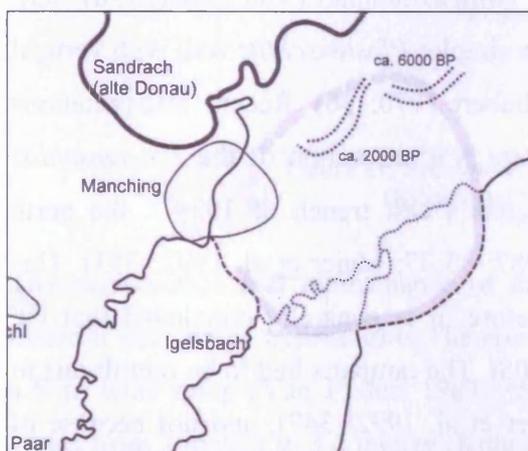


Figure 19: Situation before and after the diversion of waterways (Peters 2002: 211, fig. 2).

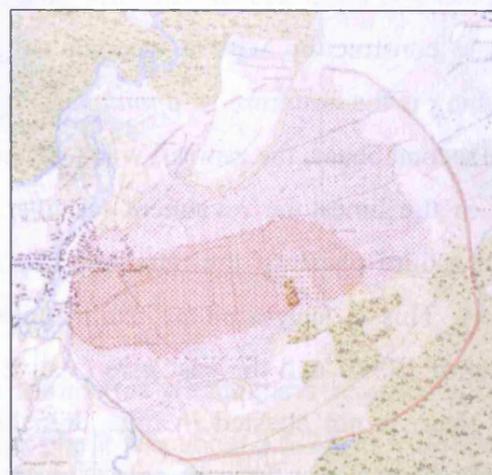


Figure 20: The main settlement area, land suitable for settlement and land not suitable for settlement (Krämer and Schubert 1970: suppl. 5).

The deliberate circular form must have been symbolic. The symbolism of the circle is intensified by the sanctuary in its very centre (Figure 52). The circular boundary might date back to the 3rd-2nd century BC. Before the construction of monumental landmarks such as ramparts, settlement borders were symbolised by a simple plough mark or a strip of undeveloped land. There is a ditch system parallel to the ramparts in the south area (Figure 28). It may be the remains of the ditch and/or fence that marked the boundary of the settlement before the ramparts were erected (Sievers 2003: 104-105). If the boundary existed

before the ramparts, the La Tène B/C cemetery would be included within the boundary, which is unusual in Central Europe according to Stöckli²⁰ (1974: 375). On the other hand, it would fit the picture of La Tène B/C Manching as a ritual space. The cemetery and the sanctuaries symbolise the ritual connection to the place. I agree with Sievers (2003: 107) that Manching resembles a cult centre.

Construction phases

The ramparts have been excavated by Beck, Holste and Wagner in 1937-1938, by Krämer in 1955 and by Maier in 1984-1985 (Figure 18). They all revealed that the rampart was built in two phases (Figure 21). In the first phase, it was a *muris gallicus* rampart. It is a quite intricate construction with a wooden nailed frame, stone filling and a limestone façade. Manching is the easternmost *oppidum* with a *muris gallicus*-rampart (Van Endert 1987: 83). In the second phase, the rampart was converted into a simpler *Pfostenschlitz* wall with vertical posts in the limestone revetment (Krämer and Schubert 1970: 36). Recent interpretations favour a third phase of the ramparts. The third phase is a restoration of the *Pfostenschlitz* rampart. This is suggested by examination of Wagner's east trench of 1938²¹, the north section of 1985²² and the east gate (Van Endert 1987: 33-37; Maier et al. 1992: 353). This third phase is not attested in other trenches. Therefore, it is generally concluded that the ramparts had "two or three phases" (Sievers 2003: 108). The ramparts had to be rebuilt due to deterioration (Krämer and Schubert 1970: 36; Maier et al. 1992: 347), and not because of external destruction of the ramparts. Unfortunately, there are not enough data available for a proper chronology of the different phases (Maier and Köhler 1992: 355).

There are no remains of a ditch in front of the ramparts (Krämer and Schubert 1970: 35), which would enhance its defensive qualities. It might indicate that defence was not the prior function of the ramparts. On the other hand, a man-made ditch would be unnecessary. The Igelsbach and Egelsgraben were diverted in such a way that they served as a moat in front of the ramparts (Figure 19; Sievers 2003: 107). In the west and the north, the *oppidum* was surrounded by the Paar and the Dürre Au (Figure 19), and in the east by the moors. There

²⁰ Stöckli (1974: 375) made this remark on the hypothesis of LTC ramparts in Manching.

²¹ The evidence for the third phase is the fact that some postholes are close to one another. This recalls the situation at the east gate. (Van Endert 1987: 36)

might have been a watchtower at the place where the Dürre Au enters the *oppidum* (Sievers et al. 1998: 628, note 23). Only the space between the Igelsbach and Egelsgraben seems undefended. Yet Reinecke found two long wall-like banks in front of the south-east rampart, though it is not clear if they were part of a defence system and their exact location is not mentioned (Krämer and Schubert 1970: 43). In conclusion, the ramparts of Manching were not particularly defensive but the *oppidum* had a natural protection in front of them.

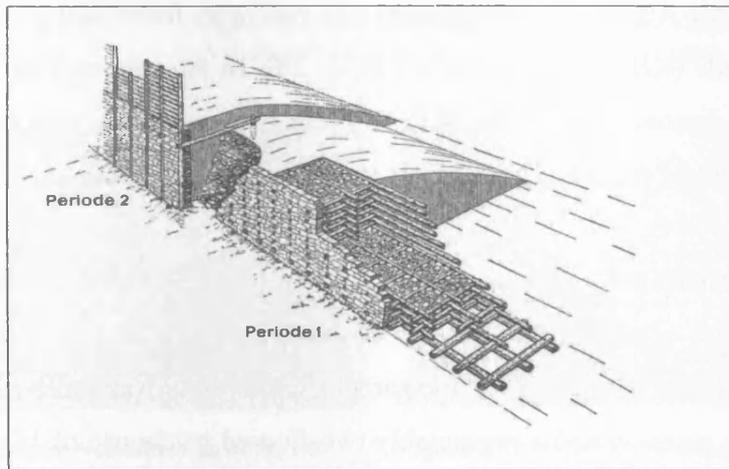


Figure 21: Reconstruction of the two phases of the ramparts (Krämer and Schubert 1970: p 35, fig 4).

The construction and maintenance of the seven kilometres of ramparts required a lot of material and energy expenditure. The *muris gallicus* phase was about 3.5-2.8 m wide and had a 9 m wide ramp (Van Endert 1987: 36; Maier 1992: 347; Sievers 2003: 108). Its height varies from 3 metres to 3.6 metres (Krämer and Schubert 1970: 37). Maier and Köhler (1992: 350-351) have calculated that the construction of the *muris gallicus* required 11,000 m³ of wood or about 37 ha of forest, as well as 12,100 nails, 6,900 m³ of stones for the front, 90,000 m³ of stone and earth for the filling, and another 100,000 m³ of earth for the ramp. Their calculation is based on the north trench with an estimated height of 3.6 m. This material has been reused for the second and -eventually- third phase. Sievers (2003: 109) estimated that it would take no less than 250 days of work by 2,000 people to build these ramparts. It is clear that the construction of the ramparts demanded a strongly organised coordination and the cooperation of a large workforce. Such enormous public works show that the community was quite extensive and well-organised. It hints at the existence of some kind of body of authority, at least for specific communal activities like large construction works.

²² The evidence for the third phase is the fact that there are postholes in the front of phase 2. (Maier et al. 1992: 348)

Gates

The only preserved gates are the east gate and south gate. They are both *Zangentore* gates. This is the most common gate type. It merely consists of two rampart ends that bend inwards and form a long parallel passageway (Appendix 1). A possible west gate is suspected to be located near the crossing over the Paar close to the church because this is where the Roman road passed (Krämer and Schubert 1970: 35). A possible north gate might have been located on the east bank of the Altag, because remains of a wall were found that stood at right angles to the rampart's ends (Krämer and Schubert 1970: 28). In the east part of the *oppidum*, an unknown gate was discovered near the B16. Of these five presumed gates only the east gate and south gate are preserved, and only the east gate has been examined.

The east gate was excavated by Gensen and Krämer in 1962/1963 (Van Endert 1987: 1). The gate had three phases (Figure 22). Although it would be likely, it is not certain that these phases correspond to the phases of the ramparts. The east gate was quite impressive. There was a 12 m x 12 m gateway and a presumably two-floored gatehouse of 11 x 8 metres (Van Endert 1987: 19; Sievers 2003: 109). The gatehouse was built on five rows of five posts in the first two phases and only four posts in the third phase (Van Endert 1987: 4). Sievers (2003: 110) concludes that the superstructure was lighter in the last phase. It may have reduced the height of the gatehouse, but an extra row of posts, probably a palisade, was added at the back of the gate (Figure 22c; Van Endert 1987: 19-20). The gatehouse had two doorways of 3 m wide (Sievers 2003: 109). They must have been at least 3 to 3.5 metres high to allow wagons and horsemen to pass (Van Endert 1987: 17-18). The gateway was paved with white Jurastone in the first phase. In the later phases, it was only covered with sand (Van Endert 1987: 13). The pavement reveals clear cart tracks (Van Endert 1987: 26). The east gate is a masterly example of monumentalisation (Figure 23). It is a wide open space with white pavement, dominated by a large two-floored gatehouse. Especially the pavement involves a sense of aesthetics, rather than a merely functional view. The first construction phase is the most elaborate one. This is true for the gate as well as the ramparts.

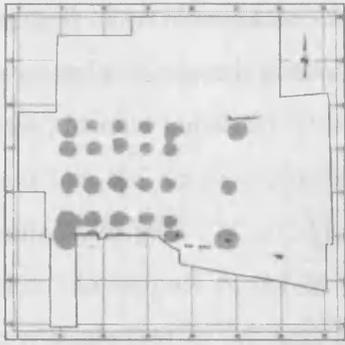


Figure 22a: East gate phase 1 (Van Endert 1987: fig. 1).

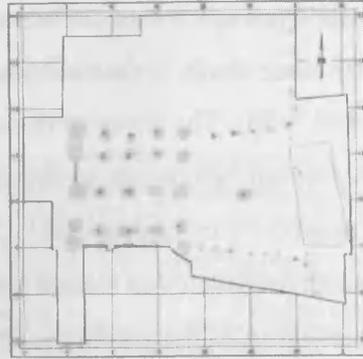


Figure 22b: East gate phase 2 (Van Endert 1987: fig. 2).

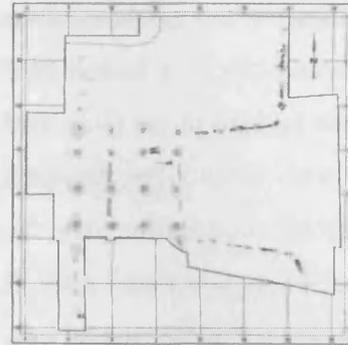


Figure 22c: East gate phase 3 (Van Endert 1987: fig. 3).

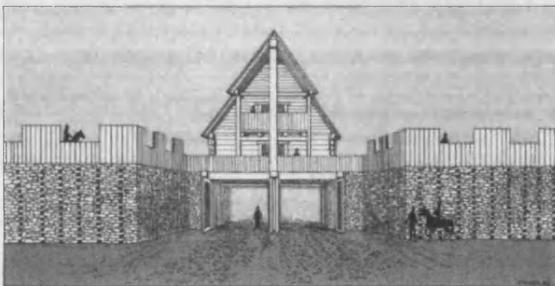


Figure 23a: Hypothetical reconstruction of the east gate phase 1 (Van Endert 1987: fig. 20).

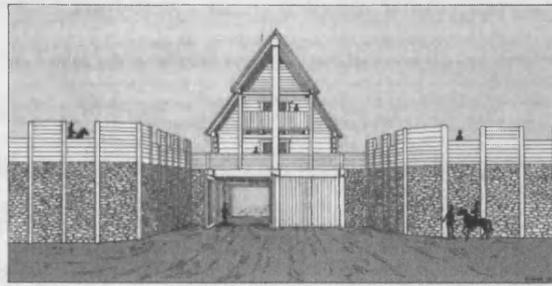


Figure 23b: Hypothetical reconstruction of the east gate phase 2 (Van Endert 1987: fig. 21).

In the second and third phase, wooden beams blocked the passageways in the gatehouse (Figure 22b and 22c). They probably belonged to a system to lock the gates. Caesar mentioned at various occasions that *oppidum* gates were closed or narrowed down (Appendix 1). This is confirmed by the examination of *oppidum* gates. They were closed or narrowed down by beams, or by three posts in the middle of the gateway, like in Hrazany, or by one or two doors to reduce the width of the gateway (Van Endert 1987: 81-82). An alternative, rather extreme way to close off the east gate is found in the gateway of the second phase (Figure 22b). The entire entrance to the gateway is blocked by two extra posts and by an 11 x 5 m large and 1.4 m deep trench (Van Endert 1987: 26). No wagon could possibly pass through. Sievers (2003: 110) interprets this trench as a *Fallgrube* or pitfall. It is seen as an indicator for increased danger (Van Endert 1987: 28). But no additional evidence for an attack or a threat is mentioned. Furthermore the trench was not in use in the last phase of the gate, which is traditionally suspected to have been destroyed. The trench was dug when the second phase was constructed and filled in around the time when the third phase was built (Van Endert 1987: 28). It was left open for a long time. It may have been used as an open ditch to be crossed over by a bridge. In conclusion, the east gate could be locked or narrowed down, like most *oppidum* gates. The pitfall is a particular feature that is not connected to specific threats.

In front of the gatehouse large posts were erected in circular shafts with wattle walls (Figure 22a and 22b; Van Endert 1987: 30); three shafts in the first phase, one in the second phase and none in third phase (Van Endert 1987: 30). The posts were probably decorated with trophies or with other signs for display or ritual protection. A Silenus-mask (Figure 24) and two pierced male skulls were found nearby (Van Endert 1987: 31, 48-50, 57). The foundation burial may be another ritual to protect the gate (Van Endert 1987: 15-16). A six year old child was buried in the middle of a passageway of the gatehouse at the time the second phase was built. The child lay at right angles to the traffic direction and looked into the *oppidum* (Van Endert 1987: 15). Inhumation is exceptional in Manching, though the absence of its right lower leg does recall the common burial rites in La Tène D (Sievers 2003: 110; Section 8). Various other human bones were scattered in the gateway in all phases (Van Endert 1987: 56-57), but this happened in the entire *oppidum* area (Section 8). In conclusion, the gate was surrounded with symbolism. It was decorated with signs and skulls, and its construction was accompanied by a foundation burial. A gate is a symbolic place. This is where one crosses the border between the inside and the outside world, in a kind of rite of passage. Sometimes isolated gates without ramparts were built on boundaries. The ritual function does not contradict a defensive function of the gate. On the contrary, in times of defence, supernatural protection was also called for.



Figure 24: Silenus head near the east gate
(Van Endert 1991: table 44).

The east gate was built at the beginning of La Tène D. It was restored twice in La Tène D1 and ended in the same period (Table 2; Van Endert 1987: 60-67). Radiocarbon dating revealed that the second and the third phase each lasted about 25 years. Van Endert deduced that the first phase may well have had the same duration and that it was therefore built around 130 BC (Van Endert 1987: 71). The first two phases ended due to deterioration (Van Endert 1987: 32). The construction of the east gate resembles that of the ramparts, but the simultaneity of their phases is not proven (Maier et al. 1992: 353). The east gate existed

mainly in La Tène D and was rebuilt every 25 years. This means that every new generation undertook the communal task of restoration.

	Archaeological data	Radiocarbon dating
Phase 1	Maybe in La Tène C2 Definitely La Tène D1	
Phase 2	La Tène D1	Built around 105 BC
Phase 3	La Tène D1	End around 50 BC

Table 2: Chronology of the east gate (from Van Endert 1987: 60-67).

The last phase of the gatehouse was burned down (Van Endert 1987: 32). Strikingly the gate was never restored. Even the fire remains were not cleared out. It would be rash to conclude that an enemy force destroyed the east gate and that this indicates the end of the *oppidum* (Van Endert 1987: 33). The gate might as well have gone out of use (Sievers 2003: 110). This theory is enhanced by the fact that the east gate and the south gate have not been reused in Roman times or in later periods (Krämer and Schubert 1970: 30). Sievers (2003: 38) mentions that these were the gates that lead into the Feilen moors. The roads through the moors must have been wooden paths leading to the iron ores (Sievers 2003: 38). The gates might have been specifically meant for iron transport. That would explain their decline in Roman times, since iron quarry came to an end in that period (Reinecke (1934/35: 141). There might have been a shift to a contemporary north east gate, which would rather have served long-distance trade (Sievers 2003: 109). In conclusion, it is not known what caused the east gate to burn down. It does not imply the end of the *oppidum*. The gate and probably the connection to the bog iron ores went out of use.

Conclusion

Manching had a monumental east gate and no less than seven km of ramparts. Such public works require a strong central coordination and the cooperation of a mass of people. Especially the first phase displays great care for monumentality and aesthetics. The ramparts were a *murus gallicus* construction and the east gate was adorned with a white limestone pavement. Ramparts and gates may have had a defensive function, as may be indicated by the various systems to lock or block the gates. But they also had a significant symbolic role. Considerable effort has been expended to build the ramparts in a circle with the old sanctuary as its centre. The gate has symbolic signs and structures, such as masks and skulls, a building

offering and probably the mysterious pitfall. The chronology of the ramparts is not clear. The east gate dates back to La Tène D and was completely renewed by every new generation.

5. The inner lay-out of the *oppidum*: urban planning and central organisation?

This section aims to find out if the *oppidum* was a centrally planned and organised urban settlement. I will test the presence and significance of the ‘traditional urban features’ and I will examine additional elements that may reveal the individual characteristics of the *oppidum*. Manching was a La Tène (B)/C open settlement for 200 years before the construction of its ramparts (Section 4). This means that the settlement was not conceived as an enclosed *oppidum* from the start. When studying the plans of settlement structures and the distribution of finds, we have to bear in mind that the culture layer is very thin and often non-existing (Krämer and Schubert 1970: 41; Maier et al. 1992: 3). The floor plans are mainly based on the alignment of postholes only (Sievers 2003: 40).

Settlement density

The enclosed area of Manching was 380 ha. The area was probably not entirely settled as it included terrain that was not suitable for settlement (Figure 20). On the other hand, settlement often did reach the walls (Figure 17c and plan 4). Structures are even found on the elevations in the marshy land near the south borders, on assumed unfavourable ground (*Forschungsplan des deutschen Archäologischen Instituts für die Jahre 2005/2006*. In: www.dainst.org/medien/de/forschungsplan.pdf: 51). The settlement area might therefore be larger than previously thought. The density of settlement varied widely within the *oppidum* area. The central area has the most dense settlement remains as it is the earliest settlement area. Even within the excavation area, the density varied through time (e.g. Figure 17). Therefore the settlement density cannot be accurately estimated, especially since only 3% of the area is excavated (Schubert 1994: 186) and settlement stratigraphy is minimal in Manching (Section 1). Yet even early Mediterranean cities did not necessarily have a dense settlement. Some had a rather scattered, sporadic occupation pattern that was conditioned by the topography of the site (Chapter 2).

Street plan

The road from the east gate to the west gate (Figure 25: C) is generally considered to be the axis of the settlement. It is a part of the regional road which would later become the Roman South Danube road (Figure 7; Schubert 1995: 131-132). A north-south road (Figure 25: G) is thought to cross the main road in the centre (Sievers 2003: 37) but this road is not located (Lorenz and Gerdson 2004: 132). The reconstruction of the other roads is apparently deduced from the location of streets in the separate excavation area. The resulting street system is quite complicated (Figure 25), though the streets were not necessarily all contemporary. For instance, the road through the east gate probably existed already in La Tène C1 (Figure 25: east end of C-E; Stöckli 1974: 375) while the road across the Altenfeld area is older than the structures it intersects (Figure 25: B; Sievers 2003: 113). The street system is mainly adapted to the natural situation, especially to the location of streams and silted streams (Sievers 2003: 38-39). The reconstructed street plan is complex, and not orthogonal or regular. However, even early Mediterranean cities have similar street plans (Chapter 2: Figure 1).



Figure 25: Reconstruction of the street system. A-G: streets;
X: stone pavement (from Sievers 2003: 38, fig. 34).

Settlement structures: palisades, fences, aligned buildings

The settlement is well-structured. Its structure is marked by the alignment of buildings, by boundary marks such as fences and palisades, and by large ditch enclosures. These features are all orientated to the streets and they often form secondary streets or paths. In the central area, settlement structure is indicated by straight ditches and lines of pits (Plan 1; Krämer and Schubert 1970: 42; 1994: 186). In the north area, the alignment of buildings, the parallel ditches and ditch enclosures mark the boundaries of street A and probably other secondary streets. (Plan 2; Maier et al. 1992: 9, 56) In Altenfeld, the numerous ditches are almost orthogonally aligned (Plan 3). In the south area, there are parallel aligned structures, large square enclosures and even a building complex bordered by galleries and orthogonal streets (Plan 4; Figure 26). In the 1999-2000 excavation area there are parallel ditches and rectangular enclosures (Figure 27). Settlement structure exceeds the local excavation area. The large ditched enclosures of the Altenfeld and the north area all have the same orientation and location (Plan 2 and 3; Figure 25). The continuity of streets and boundaries is clearly evidenced by two parallel roads and a multi-phased large ditch in Altenfeld (Sievers et al. 1998: 623).



Figure 26: Building complexes in the north part of the south excavation area (Schubert 1994: suppl. 21).

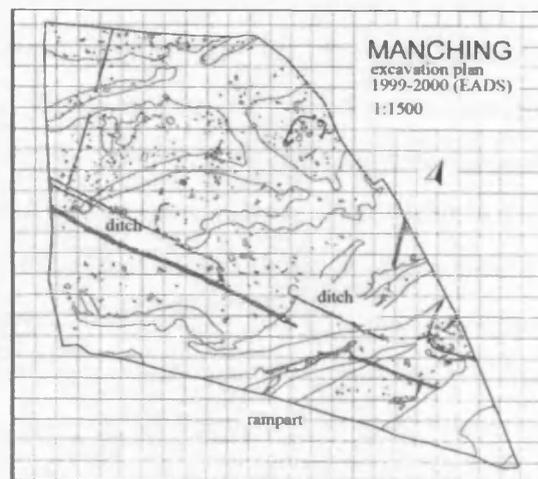


Figure 27: The 1999-2000 excavation area (Sievers 2003: 104, fig. 110).

The settlement was structured by the street system and the complementary boundary marks. Detailed examination of the streets and the other structuring features showed that they were meticulously marked out (Schubert 1994: 187-188). There has been a systematic planning of the settlement. The street plan bears similarities with Mediterranean street plans, but the

Generally they are interpreted as meadows (Sievers 2003: 54) or as places for mass gatherings, equivalent to *Viereckschanzen* (Buchsenschutz 1991: 111). These two interpretations are not mutually exclusive. It is likely that the large spaces are used for mass gatherings such as feasts and fairs, or religious and political activities. The exceptional golden cult tree as well as sanctuary E was found in such a square enclosure (Figure 51; Plan 2). At times when no mass gatherings were organised, the enclosures may well have served as meadows. It would resemble modern summer festivals. Other open spaces may well have existed at other places of the settlement, for instance near the *oppidum* walls. Manching had a paved public square in the centre and many other open spaces for public use and mass gatherings.

Standardised buildings

The buildings in Manching are highly standardised. They are all built according to the same standard measurement of 30.9 cm (Schubert 1983: 8-9, 1994: 133). This standard measurement is also confirmed by the discovery of a measuring rod, which measured 15.45 cm, or half the standard, and which had subdivisions that accord to 1/16, 3/16 and 8/16 (Figure 29; Schubert 1994: 133). Furthermore, the plans of the buildings in Manching are all based on defined schemes (Figure 30). The rectangular buildings are constructed according to scheme I which is based on the Pythagorean triangle or to scheme II which is based on a six fold circle (Figure 30; Schubert 1994: 136). The polygonal buildings follow scheme III or IV (Schubert 1994: 145). In the later north excavation area, these intervals are not consistently used though there were regular floor plans and measurements (Maier et al. 1992: 23, 35, 44). Finally, the buildings are all orientated according to eight main orientation points (Gebhard 1989: 33). The west-east orientation is restricted to an angle that stretches from sunrise on the longest day to the sunrise on the shortest day (Figure 31; Schubert 1995: 181). This orientation scheme is also used for profane and religious structures in and around Manching, including the *Viereckschanzen* and the sanctuary of Zuchering²⁴ (Schubert 1995: 185).

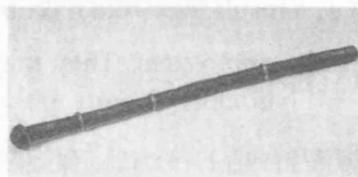


Figure 29: The measuring rod of Manching (Sievers 2003: 84, fig. 90)

²⁴ The *Viereckschanzen* and the sanctuary of Zuchering are discussed in section 2.

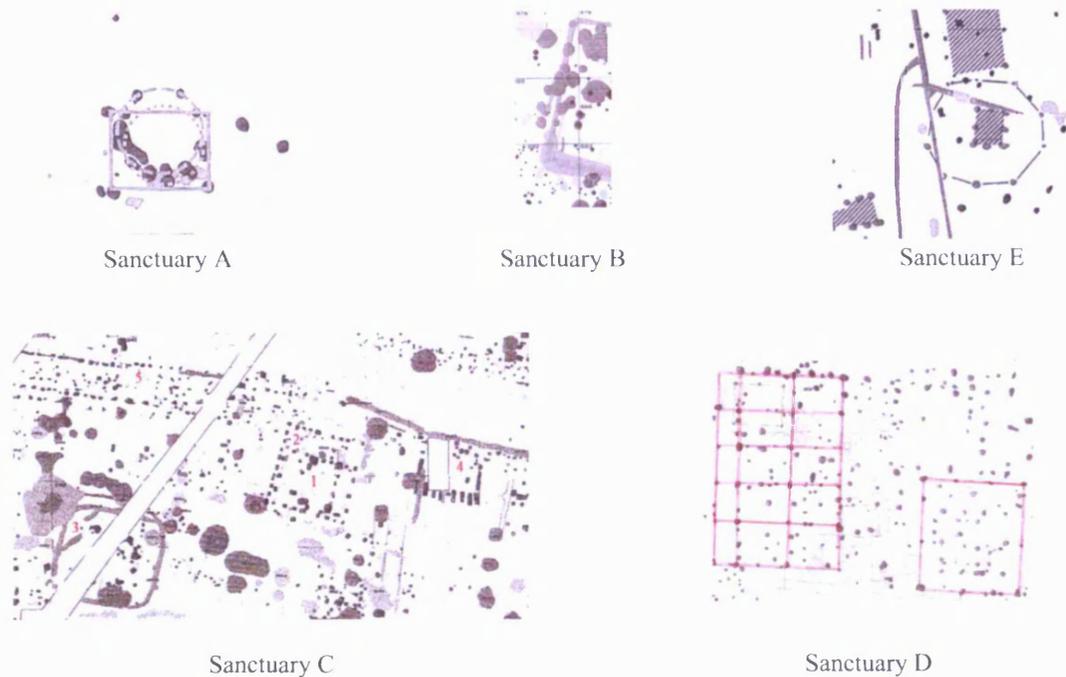


Figure 32: Plans of the sanctuaries at Manching.

The atypical buildings of Manching are considered public buildings and called ‘sanctuaries’ (Figure 32; Section 8). For convenience sake, I retain the name sanctuary. But the religious function of some ‘sanctuaries’ is not proven (Section 8). Furthermore, some sanctuaries have an extraordinary architecture which leads to the speculation that they are rather profane public buildings: some structures in sanctuary C and the two large square buildings of sanctuary D (Sievers 2003: 115). Such problems arise when one wants to divide the ritual from the profane. A sanctuary may well host non-religious activities, such as political agreements or economic transactions. They are significant and call for supernatural judgment and protection. The sanctuaries and the open spaces in front of them are often very large. They have the capacity to receive a relatively large mass of people (Table 3). In conclusion, the so-called sanctuaries of Manching were public buildings for religious and profane activities that range from small meetings to mass gatherings. In addition, public acts may as well have been performed in other buildings in Manching.

Sanctuary A	Enclosed area Pavement	35 m ² 0.4 ha
Sanctuary B	Enclosed area	484 m ² ?
Sanctuary C	Four-post structure Square building Long houses Others	30.55 m ² 128.8 m ² 115.6 m ² ?

Sanctuary D	1 st phase enclosed building	56 m ²
	1 st phase enclosed building	42 m ²
	2 nd phase: large square building with partitioning	308 m ²
	2 nd phase square building	144 m ²
Sanctuary E	Enclosed area	?

Table 3: Dimensions of buildings and open spaces at the sanctuaries of Manching.

Zoning

Zoning is a traditional urban feature (Chapter 2). It implies the existence of segregated areas for industrial, residential and public activity. Such zones are thought to be archaeologically perceivable by distinct building types and by the distribution of particular finds. The buildings of Manching are generally categorised and interpreted as follows (e.g. Sievers 2003: 42-47). Square or rectangular buildings are houses. Long buildings are houses and/or spaces such as stables, storages places and wagon stores. Four-post buildings are store houses. *Grubenhäuser* are workshops that may include a living area. A collection of such buildings, cellar, storage pits and sources in an enclosure is called a farmstead (Sievers 2003: 42-47). The farmstead is mainly interpreted as elite residence and to be distinguished from artisanal activity (Schubert 1994: 189; Maier et al. 1992: 211; Sievers et al. 2002: 170; 2003: 125). This building typology determines the hypothetical zoning in Manching.

The large enclosures or farmsteads are said to be identified in the south of the central area and in the north of the south area (Plan 5 and 8; Krämer and Schubert 1970: 41; Schubert 1994: 189). Sievers (2003: 49) concludes that large farmsteads were concentrated along the roads in the centre of the *oppidum*. The centre would therefore be the residential area (Figure 33: blue). However, 'elite residences' are not restricted to the centre. Similar large enclosures or farmsteads can equally be identified in Altenfeld, in the north area and even in the south of the south area (Plan 6-8; Maier et al. 1992: 57, 59, 61; Schubert 1994: 189; Sievers et al. 1998: 624; 2002: 359). Furthermore, the centre is not reserved for residence only. In the central area there were also small buildings along the road (Plan 1; Krämer and Schubert 1970: 42). Schubert tries to ignore this argument by stating that the street area had been an industrial area in an earlier phase (Schubert 1994: 188-189). But the chronology of the area (Figure 16) does not favour the existence of large farmsteads. There were rather some separate buildings with a fence and a collection of long houses (Figure 16: blue). In conclusion, the elite residential zone is far from clear.

Industrial zones are suspected in the north²⁵ of the *oppidum* (Figure 33: red). The south part of the Altenfeld area is called an industrial area because it lacks the usual long or rectangular houses, and it has many *Grubenhäuser* and oblong pits regarded as working areas (Siefers et al. 2002: 360-365; Siefers 2003: 132). The northern excavation area also lacks long houses, plus it has a *Grubenhäuser* and predominantly simple, small buildings (Siefers 1989: 97-98; Maier et al. 1992: 47; Schubert 1994: 191).

A specific public zone does not exist in Manching. Open spaces and public/religious buildings are spread over the *oppidum* (Plan 1-4; Figure 51). Even a separate sacred area was not the rule. While sanctuary C and D can be considered a separate area, sanctuary B and D are found within a mixture of other buildings (Figure 32). Sanctuary E may well be enclosed by the ditch system, but it might be too far-fetched to call the vicinity a religious zone (Figure 54).

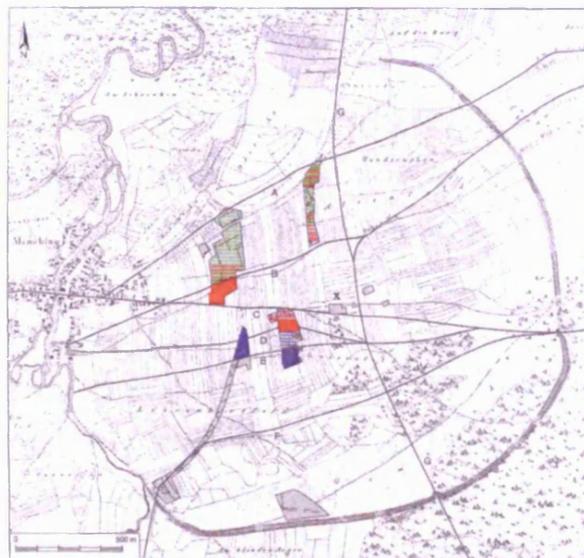


Figure 33: Assumed zoning based on building types. Red: industrial zone, blue: residential zone, green: agricultural zone (based on descriptions of authors, referred to on the previous pages of this dissertation).

In Manching there might also have been zones for food supply (Figure 33: green). The large vacant enclosures found everywhere outside the centre are often interpreted as meadows or fields (Maier et al. 1992: 54-56; Siefers et al. 1998: 668-669; Plan 2-4). A concentration of numerous storage houses and storage pits in the north area and in the north of the Altenfeld area leads to the idea that they were storage zones. The location of storage places may well be

²⁵ The south area is not published yet. Therefore only the north is considered here.

related to the vicinity of the Danube and the harbour (Maier et al. 1992: 57, 327-328, 334-335; Sievers et al. 1998: 669). However, the function of these areas changed over time. The large enclosures were built over it (Sievers et al. 1998: 668-669). The storage capacity in the north area increased in La Tène C2 and decreased again in La Tène D1 (Maier et al. 1992: 334-335).

The distribution of specific finds will test the building-based zoning theory (Figure 33). The majority of significant agricultural and industrial objects are summarised in appendix 1 to this chapter. In the central area, Jacobi (1974: 267) identified smithies and other workshops along the road, based on the distribution of finds (Figure 34). However, there are no clear floor plans of workshops (Lorenz and Gerdson 2002: 134). Moreover, smith's tools and iron slag are spread all over the central area. There is even a concentration in the so-called residential zone and in the so-called farmstead in the south part (Figure 34; Jacobi 1974: 263-267). In conclusion, a strict division between an industrial and a residential zone is invalid.



Figure 34a: Distribution of smith's tools in central area (Jacobi 1974: suppl. 1).

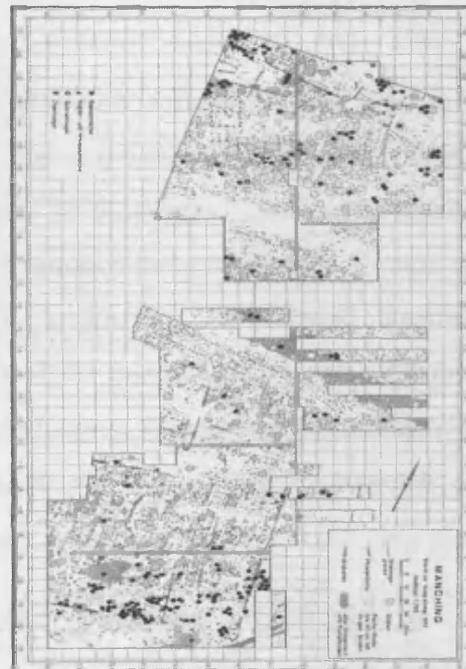


Figure 34b: Distribution of iron slag, *Schmelztiegel* and *Düsenziegel* in the central area (Jacobi 1974: suppl. 2).

A similar situation is also revealed in the other excavation area. First, industrial activity may well have a favoured area, but it is not restricted to an exclusive zone. In the assumed industrial zone, there is clear evidence for iron workshops, minting and other workshops (Maier et al. 1992: 156, 160, 200-201, 205, 210, 332) but it is definitely not a proper industrial zone (Maier et al. 1992: 211). In the Altenfeld area industry was not restricted to the so-called 'industrial zone'. In the north there is also evidence for smithies, iron workshops, minting workshops and others (Sievers et al. 1998: 631-671; 2002: 365-366). Second, the distinction between the so-called farmsteads and industry is invalid. The farmstead in the north area had evidence for intensive iron working (Maier et al. 1992: 201).

While some areas may be more inclined to specific activities than others, there is no clear division of the *oppidum* area into residential, industrial and public zones. The search for rigid and fixed zones is therefore invalid. This should not be considered a deficiency of the settlement. Functional zoning is not a prerequisite in Mediterranean cities either (Chapter 2).

Conclusion

The *oppidum* is presumably not entirely densely settled. Moreover its density varies in space and time. This calls again for a dynamic view on *oppida*. The remarkable standardisation of buildings, street plan, orientation of houses and the often clear parcel boundaries indicate some sort of central decision-making body, or at least the coordination of decisions and agreements between the occupants. There are open spaces and public buildings of considerable size, where mass or small-scale gatherings could take place. The *oppidum* is not strictly divided into exclusive zones for industry, agriculture or residence. Though, there is often a tendency to favour particular structures or activities in particular parts of the *oppidum*.

6. Daily life and economic activity: Who lived and worked at the *oppidum*?

This chapter examines the socio-economic function of Manching. It aims to find out who stayed at the *oppidum* and which economic activities these people performed. It is designed to examine the assumption that *oppida* were central places.

Houses

There are no indications of hearths and the interior organisation of the buildings due to the problematic preservation in Manching (Section 1; Schubert 1983: 7). As a result, we have little or no information on the organisation of households. It is even difficult to identify a house in the *oppidum*. Though, the usual kitchenware is present at Manching. There are numerous knives, whetstones, meat forks, cauldrons, millstones, hearth shovels and grills (Jacobi 1974: 101-104, 106, 110-111, 116, 126-127, 129-130, 170). All these tools can be used for cooking as a daily activity, but also as part of cult activities (Jacobi 1974: 103-106, 126-127). The objects suggest that people stayed at the *oppidum*.

Care

The occupants of Manching cared for their appearance and health. In the *oppidum* toilet sets are found. They are also known from La Tène B/C burials (Jacobi 1974: 87). Medical activity is evidenced by chisels, tweezers, probes and a possible scalpel (Jacobi 1974: 99-100). The trepanations found on skulls reveal the presence of a skilful surgeon (Lange 1983: 86). Complex bone fractures found on human remains have clearly been healed well (Lange 1983: 95) and also the teeth found on bodies reveal a healthy population (Lange 1983: 92). In summary, the people had a good living standard in Manching.

Food supply: agriculture, cattle breeding and fishing

The large ditch enclosures (Plan 1-4) were presumably used as pastureland and for agriculture (e.g. Knopf et al. 2000: 143). Animals were very important in the Manching economy. No less than 400,000 fragments of animal bones were recovered in 1955-1963 and 35,752 fragments in 1984-1987 (Boessneck et al. 1971: 5, 55; Maier et al. 1992: 267). Boessneck et al. (1971: 11-12) calculated that –if the *oppidum* lasted for 100 years²⁶- 200 horses, 1,500 ruminants, 2,000 cows and 2,000 pigs were simultaneously present at the *oppidum*. That makes a very large amount. However, some of the animals presumably lived elsewhere and were brought to the *oppidum* to be slaughtered (Boessneck et al. 1971: 11-12). Each year, at

²⁶ Boessneck assumes that the *oppidum* lasted for 100 years. Presumably, this period aims at the traditional *oppidum* period: La Tène D only (chronology: Appendix 1).

least 500 cows, 500 pigs, 500 ruminants and 50 horses were butchered at Manching (Boessneck et al. 1971: 12). They were slaughtered for nourishment, not for ritual purposes since the animal bones are mainly kitchen waste and because there is a clear predominance of cattle and pig²⁷ (Table 3; Boessneck et al. 1971: 2, 5, 9; Schäffer and Steger 1985: 61, 68; Maier et al. 1992: 267; Sievers 2003: 115). It is therefore highly likely that Manching was a cattle market and a place for butchering.

	Amount of bones	Weight of the bones
pig	11.5 %	25 %
cattle	8.7 %	50 %
horse	2.3 %	?
ruminants	7.8 %	12.5 %

Table 4: Share of animal species in the total amount of animal bones²⁸
(based on Boessneck et al. 1971: 6-7).

Agriculture is attested in the *oppidum* (Maier et al. 1992: 350; Sievers et al. 1998: 661). Grain is found in the vicinity of houses while field weed is only found in the vacant area of Manching. This clearly indicates that grain was harvested, threshed and cleaned in this area, and brought to the settlement area afterwards (Sievers et al. 1998: 661). Small-scale harvest is demonstrated by the amount of ploughshares and knives with sickle-shaped blade that is found in the *oppidum* area (Jacobi 1974: 67, 73-81). In the north excavation area agriculture started after the construction of ramparts (Maier and Köhler 1992: 350).

Fishing activities were also a means for food supply. The Danube and Paar must have been well-stocked rivers in the Iron Age (Jacobi 1974: 83). Even in the 19th century, fishermen lived in the village of Manching (Maier et al. 1992: 208). There is little evidence for fishing in the centre of the settlement, but recent samples in the Dürre Au and Altenfeld area did recover a large amount of fish bones (Sievers et al. 1998: 662-663).

²⁷ The study of animal bones of later excavations mainly verifies Boessneck's results (e.g. Maier et al. 1992: 267). Only the sample from the Altenfeld and Dürre Au revealed a predominance of pigs, and many more ruminants and fowls (Sievers et al. 1998: 663).

²⁸ It is not clear why these numbers do not add up to 100 %. Probably the missing share of animal bones was not identified.

In conclusion, it is likely that fishing, cattle breeding and even agriculture took place within the *oppidum* walls. However, complete autonomy from the countryside was probably not the case. The considerable storage places at the *oppidum* (Section 5) may have solved this problem. The significance of agriculture in an *oppidum* such as Manching is not surprising. No ancient settlement, not even ancient cities, was non-agricultural. On the contrary, farmers actually lived in ancient cities (Chapter 2).

Coin production

Coin production is proved by a coin punch and at least 140 fragments of clay moulds (Figure 35 and 36; Kellner 1990: 9). Moulds are accumulated in the central area and in the south 'industrial' area of Altenfeld, but that does not necessarily indicate the presence of a proper workshop.



Figure 35: Bronze punch for the production of iron coin dies (Sievers 2003: 82, fig. 87).



Figure 36: Coin moulds (Sievers 2003: 81, fig. 86).

Silver and gold coins were produced in Manching, but potin coins are not present (Kellner 1990: 12, 29). Some coin types made in Manching are identified. The *Regenbogenschüsselchen* type is represented by two mould fragments and by a bronze blank (Sievers et al. 1998: 645-646). Production of the *Schönaich* type is demonstrated by a die (Figure 35). Various types of *kreuz* coins are only known from Manching and Berching-Pollanten (Kellner 1990: 11). Finally, the *Büschelquinar* type predominates in Manching (Kellner 1990: 10-11, 21). Coins are found in Manching from La Tène C1 onwards, but coin production probably already started in La Tène C2 - La Tène D1, when the Manching coin types were found (Kellner 1990: 37, table 9). The *Regenbogenschüsselchen* have no weight differentiation. This may indicate the high technical quality and care for uniformity, or rather

a short production period (Kellner 1990: 24, 26-27). This fact reminds us that minting workshops were not necessarily continuous. In conclusion, in Manching, silver and gold coins of various types were produced.

Metal working

While bronze working was located only in the central area and the south 'industrial' area in Altenfeld (Sievers 2003: 74-75), iron workshops are found in almost every excavation area in Manching. Iron slag was even found in the assumed residential area and so-called elite farmsteads (Section 5: zoning). It made Sievers (2003: 77) conclude that the farmstead owners might have had their own smith or even might have been a smith themselves. Indeed, it appears that many occupants at Manching were working iron, whether part-time or full-time. Jacobi (1974: 12) argues that the anvils are rather small, but specialised blacksmiths are definitely represented at the *oppidum* (Schwab 2002: 6). The iron nails for the ramparts were made from a mixture that had not been used until then (Kellner 1990: 13). The extraordinary iron horse statue (Figure 62) was presumably also made by a local artisan (Krämer 1989: 533-534). Other objects produced in Manching are, for instance, iron and bronze Nauheim type *fibulae* and wheel amulets (Van Endert 1991: 11, 18, 25). Metal was largely recycled at Manching. Scrap metal predominated in the south 'industrial' area of Altenfeld (Schwab 2002: 13, Sievers 2003: 75, 125). Iron production started from La Tène C2-D1 onwards (Maier et al. 1992: 328) and not in the first settlement phase.

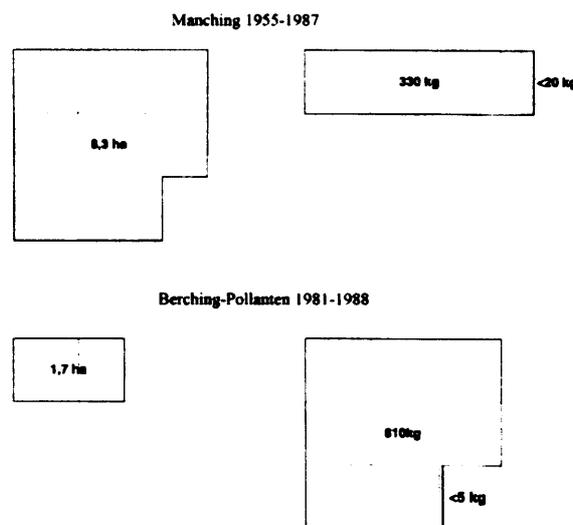


Figure 37: The amount of iron slag from the excavated areas in Manching and in Berching-Pollanten (Schäfer 2002: 229, fig. 9).

Iron production was clearly a significant occupation of the people in Manching. However, it was not the monopoly of the *oppidum*. On the contrary, in the open settlement Berching-Pollanten near Manching (Figure 11: 3), much more iron slag is found than in Manching (Figure 37). *Oppida* are therefore not necessarily the central production place of iron.

Glass production

Glass workshops are generally difficult to recover (Kunkel 1961: 322-324), but glass production is attested by the discovery of imperfect pieces and lumps of raw glass (Figure 38; Gebhard 1989: 11). Manching has the most significant amount of glass fragments in Central Europe. The whole spectrum of Celtic glass arm rings is represented in Manching: (Gebhard 1989: 8-11). Gebhard concludes that glass production was one of the economic bases of Manching (Gebhard 1989: 181, 183). Glass production requires highly specialised artisans (Gebhard 1989: 181). It started at Manching in La Tène C1 (Gebhard 1989: 127), when it was still an open settlement. In conclusion, the highly specialised glass was a characteristic



Figure 38: Glass lump and arm ring
(Sievers 2003: 73 fig. 77).

Production of ceramics

The production of ceramics at Manching is evidenced by kilns, wasters and lumps of raw graphite, which are rare in La Tène sites (Kappel 1969: 17, 20-21; Maier 1970: 70; Sievers 2003: 63). A proper area for ceramic production has not been identified (Sievers 2003: 64). Any occupant of Manching may have produced simple ceramics as they do not require kilns or specialised skills (Stöckli 1979: 8, 61, 65). However, the painted ceramics, *Glatte*

Drehscheiben ceramics and graphite ceramics are highly standardised and presumably made by specialists in or near Manching (Maier 1970: 16, 65; Kappel 1969: 3; Pingel 1971: 81-82). They were very experienced. This is shown by the technique of production and of painting (Pingel 1971: 86; Maier 1970: 56). The kilns all date to La Tène D. It is not clear if ceramics were produced in the La Tène C settlement (Sievers 2003: 63-64). In conclusion, simple ceramics were probably produced by any occupant. It is not certain if the highly specialised ceramics were produced within the *oppidum*.

Wood working, bone working, leather working and weaving

That wood working was significant at Manching is shown by the large amount of chisels (Jacobi 1974: 37). Although Jacobi (1974: 266) states that carpenter workshops concentrated in the central area, the tools are evenly spread over the *oppidum* (Jacobi 1974: Appendix 3). Sievers (2003: 71) states that carpenters worked at the places where they were needed. They might well have been travelling artisans. Bone working is also present (Jacobi 1974: 243). Evidence for weaving and leather working are rare, but awls and spindle whorls are numerous in Manching (Jacobi 1974: 55; 63-64). In conclusion, wood working, bone working and the working of fabrics occurred in the *oppidum*. Weaving and leatherwork must have occurred outside the *oppidum* or in an area that is still to discover (Sievers 2003: 60-61).

Market place

In Manching three lead weights were found (Figure 39). Two weights bear an identical human figure, and a third weight is decorated with circular ornaments. The two identical weights are 62 and 125 grams respectively. This means that one weight is exactly half of the other. It indicates the use of a standard weight at the *oppidum* (Sievers 2003: 83). It indicates that there was a need for standardized weights by the traders on the market of Manching (Krämer 1997: 77-78). It also implies that Manching had an organising body of authority that determined and controlled the standard weight and that therefore to some extent organised the market. All three weights are found near a sanctuary, two weights near sanctuary B and one near sanctuary D (Sievers et al. 2002: 375). This shows their connection with the public buildings, or the connection between religion and economic activity. Such weights are exceptional. They

are not known from other La Tène settlements. The closest parallels are the Greek city weights (Krämer 1997: 78).



Figure 39: Lead weights. a-b: the two weights with a human figure; c-d: front and back side of the weight with circular ornamentation (Sievers 2003: 84 fig 89).

Twenty precision balances were found in Manching (Van Endert 1991: 60). They were used to weigh coins to estimate their value (Jacobi 1974: 85-87). Precision balances are mainly found in *oppida* and are unusual in open settlements or burials (Jacobi 1974: 85-87; Van Endert 1991: 60). An exception to this rule is the open settlement of Berching-Pollanten (Figure 11: 3), where several of these balances were found (Fischer et al. 1984: 330). The fact that the precision balances are mainly concentrated at the *oppida* may indicate that the market function is significant at *oppida*. The *oppidum* of Manching is definitely the focal point for trade and the negotiations it involves.

The market function of Manching is also indicated by the exceptional amount of coins (Kellner 1990: 17). Manching even had a well-defined currency. The silver coins were the *quinarius* and its 1/4 denomination. The gold coins were staters and *Regenbogenschüsselchen*, and their 1/4, 1/24, 1/72 denominations (Kellner 1990: 15-16). This, again, is an indication for a firm central organisation. Gebhard (1995: 113) even considers it a fully developed monetary system. The local currency probably consisted of the silver coins since they make up 81% of all coins (Kellner 1990: 17, 21). Gold coins are only 6%²⁹. Therefore, they were probably not used for daily monetary transactions (Kellner 1990: 17) or used for long distance trade (Gebhard 1995: 113). Strikingly, 40 % of Manching coins had only a thin layer of precious metal, but a core of inferior material. Still, they were tolerated in the daily monetary traffic. It might indicate a (temporary) silver shortage (Kellner 1990: 24).

²⁹ These proportions are similar to those in Berching-Pollanten: 88.5% silver, 5% gold, 6 % other (Kellner 1990: 17).

Manching had a harbour that was connected to the Danube (Section 2). The storage pits and houses that are concentrated near the harbour probably served to store goods (Section 5; Sievers 2003: 19, 39, 106). The ditch system may well be a system to unload goods from the ships (Plan 3; Sievers et al.³⁰ 1998: 624-625). One is tempted to conclude that Manching was a trade and distribution centre (Knopf et al. 2000: 146-147; Sievers 1996: 333; 2003: 55). However, it might be too far fetched to imply central control over trade in the region. It is perfectly sound that a settlement near a river has a harbour, and that in a harbour goods are traded. There are not many Mediterranean imports in Manching (Section 7). Stone and raw material for the production of glass, ceramics, bronze, silver and gold coins must surely been imported to the settlement area. The export products are difficult to identify. They are considered to be iron and iron tools, as well as textile, ceramics and glass jewellery (Maier et al. 1992: 208; Schwab 2002: 6).



Figure 40: Drawing of the fairs at Bibracte in the 19th century (Goudineau and Peyre 1993: 132).

Regional coins predominate in Manching (Section 7). One should not underestimate the value of the local market. Sievers states that Manching could well have been a large, interregional cattle market, for instance. The animal bones show that many animals were butchered at the *oppidum* (Sievers 2003: 58-59). Moreover, the present cattle market called Barthelmarkt in Oberstimm, at 3 km west of Manching, would go back to the cattle market in the *oppidum* of Manching that would have been transferred to the Roman fort in Oberstimm in the Roman period (Krämer and Schubert 1970: 56). It remained the largest cattle and horse market in south Bayern for many centuries (www.nra.de/events/barthelmarkt/historisches.php). This is

³⁰ On the other hand, Sievers et al. (1998: 669) also state that the ditch system may have been a collection drainage ditches or a proper water regulation system.

not surprising. In Bibracte, at the location of the former *oppidum* seasonal fairs were held up to the 19th century (Figure 40; Gruel and Vitali 1999: 12).

In conclusion, the organisation of regional markets and fairs and the accompanying communal meetings were presumably one of the main functions of the *oppidum* at Manching. The use of a standard weight, a well-defined currency and precision balances implies a central coordination of trade transactions. It also reveals the significance of trade at Manching.

Conclusion

People stayed and worked at the *oppidum*. These people were relatively healthy and apparently they had good living conditions. Fishing, cattle breeding and small-scale agriculture presumably fulfilled their basic needs. They were also occupied with the production of coins, metal and glass objects and ceramics. Yet, the production scale at Manching was not extraordinary large, for instance in comparison to the open settlement Berching-Pollanten. What clearly stands out is a trade and market function. Coin balances, standardised weights and a well-defined currency attest to the significance of the market and to its central organisation. For these reasons Manching may appear to have some characteristics of a solar central place, though a market monopoly is not demonstrated. Manching was a regional market and thus meeting place. For this reason artisans were probably attracted to stay at the *oppidum*.

7. External contacts: the regions Manching had contact with

This chapter examines the regions Manching had contacts with and the nature of those contacts. It questions the assumed control of long-distance routes and dependence on the Mediterranean (Chapter 1).

Local coins are clearly predominant: 58% of the coins originate from south Germany (Table 4). The distribution of the iron bars, which may also have been used as currency, and the *Schönaich* coin, a coin type of Manching, is a good indicator of the contact of Manching (Figure 41 and 42; Sievers et al. 1998: 651; Jacobi 1974: 252). They are clearly concentrated in a local area. Many other objects are confined to south Bavaria, such as types of bracelets

and belts (Van Endert 1991: 4, 23). It shows the significance of regional trade as well as Manching's function as a local market.



Figure 41: Distribution of the Schönau I/II coin type (Sievers et al. 1998: 651; fig. 11).

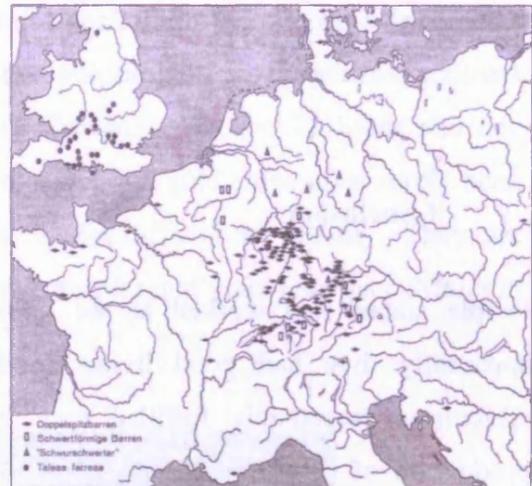


Figure 42: Distribution of iron bars (Jacobi 1974: 251; fig. 57).

Manching had particular close relations with neighbouring settlements. The *oppidum* acquired iron from Berching-Pollanten and from the *oppidum* of Kelheim (Figure 11: 3 and 4; Maier and Köhler 1992: 351). Kelheim is also the only site where equivalents are found to exceptional objects of Manching: two dog head spouts and two owl head linch pins (Figure 43 and 44; Van Endert 1991: 50-51). The settlement of Bad Nauheim is the only site with a parallel to the Silenus head (Figure 24; Van Endert 1991: 45). These particular artefacts indicate the mobility of products or artisans between neighbouring settlements.



Figure 43: Dog head spouts (Sievers 2003: 91, fig. 100).

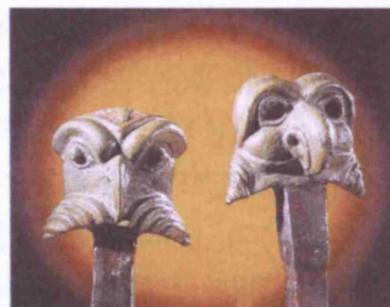


Figure 44: Linch pins with owl heads (Sievers 2003: 120 fig. 123).

The largest share of foreign coins, 28%, comes from the west (Table 4; Kellner 1990: 16). Gallic potin coins make up 10% of the assemblage (Kellner 1990: 28-29). Manching is also the easternmost point of the *quinarius* area. The *quinarius* was the most common coin at the time, but it is not found further east than Manching (Kellner 1990: 21-23). Imports from the west include wooden buckets, which are rarely found outside Gallia and South England (Van Endert 1991: 94). Moreover, Manching is also the easternmost *oppidum* with a *muris gallicus* type rampart (Figure 45; Van Endert 1987: 83). In conclusion, there are clearly profound relations and exchange between Manching and the west.

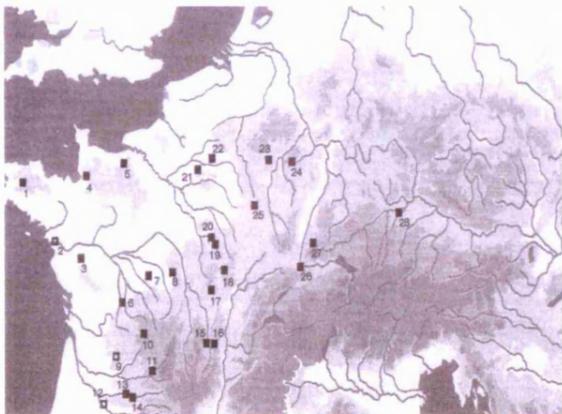


Figure 45: Distribution of the *muris gallicus* type of ramparts (Van Endert 1987: 85, fig. 18.1).



Figure 46: Distribution of the *Pfostenschlitz* type of ramparts (Van Endert 1987: 85, fig. 18.2).

The importation of objects and raw material also indicates strong relations with the east. The sapropelite of Manching originates in the area of Slaný near Prague, Bohemia (Rochna 1961: 329, 337-338, 345). The graphite used on 60% of the graphite ceramics at Manching originates in Passau (Figure 11: 11; Kappel 1969: 79). The graphite ceramics are similar to those of the Bohemian *oppida* Stradonice, Hrazany, Třisov and Staré Hradisko (Kappel 1969: 54, 66). Despite these strong connections, only 5% of the coins at Manching come from the east (Kellner 1990: 16). Presumably, since raw material import from the east was that substantial, raw material may have been preferred to coins as exchange good.

The link with the east is also demonstrated by the form and style of fittings, tools and dress elements such as *fibulae*, belts, amulets, spurs and swords. These objects are strongly related to Austria, Moravia and particularly to Bohemia (Van Endert 1991: 108; Sievers 2003: 131). A close link to the *oppidum* of Stradonice is suggested by types of torcs, bracelets, anklets and by the mask of a man (Van Endert 1991: 3, 19, 21, 46). Manching and Stradonice are also the only *oppida* which have a *Knebeltrense* or gag snaffle, which were mainly found in the

Scythian area (Figure 47). Finally, the later phases of the ramparts of Manching were *Pfostenschlitz*-types, which mainly occur in the east (Figure 48; Van Endert 1987: 83-84).



Figure 47: Distribution of *Knebel* snaffles (Jacobi 1974: 191, fig. 52).



Figure 48: Distribution of omega-shaped snaffles (Jacobi 1974: 187, fig. 49).

Manching also had connections with the north (Stöckli 1979: 189). This is evidenced by Germanic ceramics, bronze drinking horns, fittings and accessories such as *fibulae* (Stöckli 1979: 189; Van Endert 1991: 108; Gebhard 1991: 34-36). Foreign objects do not necessarily testify intensive trade relations. There are strong indications for northern women living in Manching, for instance the occurrence of northern types of ornaments (Figure 49; Section 10).



Figure 49: Distribution of specific types of foreign ornaments (Krämer 1961: 313, fig. 2).

Mediterranean coins make up only 3% of the total amount of coins in Manching (Table 4; Kellner 1990: 16). Exchange contacts are attested by *amphorae*, *campanian* pottery and the remains of *garum* (Gebhard 1995: 112; Sievers et al. 1998: 664-665). But the fragments of *amphorae* and *campanian* pottery make up less than 0.5 % of total amount of ceramics of Manching (Stöckli 1979: 1, 3; Gebhard 1995: 112; Will 1987: 21). Contacts with the Mediterranean are also testified by other objects, such as types of rings, bronze tableware, graphite ceramics, glass vessels, snaffles and even an imported horse type (Van Endert 1991: 12-14, 78; Kappel 1969: 119; Gebhard 1995: 112; Jacobi 1974: 19, 185; Boessneck et al. 1971: 31, 106).

Mediterranean knowledge and influences also arrived in Manching. This is shown by the Silenus mask (Figure 24), the golden cult tree (Figure 60 and 61; Section 8), pottery, key types and the use of lead weights (Van Endert 1991: 45; Maier 1970: 65; Sievers 2003: 36; Jacobi 1974: 171; Krämer 1997: 78). There might even be a continuous and direct contact with ancient glass workshops (Gebhard 1989: 181). Three graffiti³¹ testify to the use of the Greek and Latin alphabet. This is not surprising. Caesar wrote that the Helvetii kept lists written in Greek (DBG 1.29) and that the druids used Greek in personal and state affairs (DBG 6.14). A bone slate *stylus* confirms the use of writing in Manching (Sievers 2003: 85).

Conclusion

Manching had contacts in all directions, but mainly with the east. Gebhard (1995: 112-113) even argues for a well-established economic system with Bohemia, Moravia and the area of Passau along the Danube river. There are also clear indications for contacts and exchange with the Mediterranean. But dependency on the Mediterranean would be a far-fetched assumption, given the extent of other regional and long-distance contacts of the *oppidum*. Yet, the long-distance contacts routes are not characteristic for the *oppidum*. Manching already had long-distance contacts when it was still an open settlement. Saproelite rings arrived in La Tène B/C and Mediterranean *amphorae* at the beginning of La Tène C³² (Rochna 1961: 341-342, 346; Will 1987: 36).

³¹ One pot sherd was inscribed with the Greek letters ZHΘ, which could be writing exercise, or mystical numbers 7 8 9 (10?), or even the word ZHΘI or *vivas* (Krämer 1982: 490-491). The second was BOIOS, in Latin or Greek alphabet. This is probably a personal name, derived from the Boii. (Krämer 1982: 492). The third one was the Latin TAR, which was probably a name. (Schubert 2001: 42-52)

³² *Amphorae* arrived in Manching from 200 BC onwards (Will 1987: 36).

8. Social structure: hierarchy and elite?

How many people actually lived at the *oppidum*?

The conviction that Manching had a large population is based on the *oppidum* size, the dense settlement in the centre, and the workforce required for the construction of the ramparts (e.g. Knopf et al. 2000: 141, 143). However, the size of the *oppidum* does not necessarily correlate with the size of actual settlement (Section 5: settlement density). The central area is the oldest settlement area and it has therefore more settlement evidence. The workforce must not necessarily consist of inhabitants of the *oppidum*.

There are several ways to attempt an estimation of the population size. Boessneck et al. (1971: 11-12) started from the amount of slaughtered animals per year (Table 5). They assume that one person eats 250 g of meat per day and that the *oppidum* lasted 100 years. This way he estimates an *oppidum* population of at least 1,700 individuals. These estimations are not reliable. It is based on a hypothetical estimation of the daily meat consumption at that time. Furthermore, the meat consumers are not necessarily inhabitants of Manching. Presumably the majority lived in the vicinity because Manching is likely to be the regional cattle market and butchery place (Section 6).

Total amount of slaughtered animals.	5,000 horses 50,000 bovines, pigs, small stock
Estimated amount of slaughtered animals per year (assumed the <i>oppidum</i> existed for 100 years)	50 horses 500 pigs 500 bovines 500 small stock

Table 5: Total amount of animal bones in 1971 and the estimated amount of butchered animals per year (according to Boessneck et al. 1971: 11-12).

According to the burial population, at least 67 to 74 individuals lived in or near Manching in La Tène B/C (Table 6). This is a rather small number. However, the cemeteries are not systematically and completely excavated (Section 4). Furthermore, not every member of the society was buried in the La Tène B/C cemeteries. The cemeteries are all relatively small compared to the settlements (Sievers 2003: 103). Furthermore, they are only confined to the period prior to La Tène D. These numbers are pointless for research on the *oppidum* population.

Location	Amount of burials	Minimum burial population
Hundsrucken	22 inhumation burials	22 individuals
Steinbichel	43 inhumation burials 1 skull 7 possible graves	44 up to 51 individuals
Cremation	Unknown (cremated) In coffin for 1 inhumation	1 individual

Table 6: Amount of burials and minimal burial population in and around Manching (based on Krämer 1985: 75-99).

The human bones in the *oppidum* are remains of La Tène D burial rites (Section 8). At least 403 individuals were attested by femur bones in 1973 (Table 7; Lange 1983: 37). Lange (1983: 37-42) calculates that at least 14,424 and up to 18,751 individuals must have been buried in Manching. His calculation is based on the average mortality rate and on the proportion of the excavated area in 1973 to the whole *oppidum* area (Table 7). He concludes that a minimum of 3,750 people lived in Manching if the *oppidum* lasted 125 years, 3,125 people for a period of 150 years and 2,680 people for a period of 175 years. That is quite a lot. Yet, the assumption that the number of bones in one area can be transferred to the whole *oppidum* area is has been proved to be inaccurate³³. Furthermore, it is not clear whether the people buried at the *oppidum* were also inhabitants of the *oppidum*, and not, for instance, people of the vicinity.

	adults	Juveniles	infants	total
Based on the femur bones found by 1973.	342	29	22	403
Recalculation, based on estimated mortality rate (45% under the age of 19. 5% juveniles, 15% infants)	342	31	249	622
Recalculation, based on the fact that by 1973, only 2% is excavated.				14,424 minimum 18,751 possible

Table 7: Estimation of individuals based on the human bones in the *oppidum* (Lange 1983: 37-42).

In conclusion, the presumption that Manching had a dense population cannot be proven. Different estimation rates are deduced from different data: from 67-74, to 1,700, up to 3,750. None of these methods is very adequate. They can minimally estimate the amount of people

³³ There are different amounts of human bones found in the other excavation area. In the north area only nine people were found (Maier et al. 1992: 213). In the 1996 Altenfeld excavation at least eleven (Sievers et al. 1998: 656-657).

being buried at the *oppidum*, or the amount of people eating meat that is slaughtered at the *oppidum*.

Who were the inhabitants?

The La Tène B/C cemeteries may well represent family groups since men, women and children were buried there (Appendix 3 to this chapter). Sievers (2003: 27) argues that the burial population may well belong to different settlement cores. The La Tène D, bones also represent a normal burial population according to Lange (1983: 107). Men and women are almost equally represented and there are also children, although underrepresented (Table 7). It is a relatively young population: the average age of death is 35.6 for women and 34.5 for men (Lange 1983: 32-37). In conclusion, entire families may have lived and died in and around the *oppidum*.

The population of Manching was not homogeneous. Some skulls and bones are interpreted as foreign types (Lange 1983: 43, 80-82), though this may be rather an assumption. *Fibulae*, a glass bracelet and a belt found at the *oppidum* may indicate the presence of foreign women, according to Krämer (1961: 314-320). A specific snaffle type and belt hooks may point to the presence of a Scythian person (Van Endert 1991: 25). Although it would not be surprising that 'foreign' people would stay in Manching, more arguments are needed to draw conclusions. Boii were definitely present in Manching. They may have stayed in the Altenfeld area because of the remarkable concentration of Boii finds: scabbard fittings and spurs, glass ornaments, a deposit of 483 golden Boii stater coins and a lump of Bohemian gold, and the inscription 'BOIOS' which is may be a personal name derived from the Boii (Sievers et al. 2002: 392; Sievers 2003: 99; Krämer 1982: 492). In conclusion, foreign people also lived in Manching. They indicate external relations other than trade. However, they are not restricted to the La Tène D period. On the contrary, the 'female ornaments' as well as the Boii deposit date to La Tène C, the period of the open settlement of Manching (Krämer 1961: 315-320; Sievers et al. 2002: 392).

Social differentiation?

It is generally assumed that Manching had a hierarchical society with a leading elite class (Kellner 1990: 13; Maier et al. 1992: 208; Knopf et al. 2000: 141; Sievers 2002: 167). The elite is supposed to be a warrior class that possessed the resources and owned the land (Sievers 2002: 171). This assumption is largely based on the firm confidence in Caesar's depiction of the Celtic tripartite society (Chapter 2; Schubert 1995: 134) and on the existence of large public construction works and assumed elite buildings.

According to Sievers (2002: 170) a central authority is evidenced by coin production, storage places and substantial construction works such as ramparts and canalised streams. However, these activities do not indicate the presence of an elite class. They only prove the existence of a strong organisation. It may well be in the hands of a joint council or planning body or a sort of social elite. Even segmentary societies managed to retain order in everyday life (Hendry 1999: 172). Furthermore, it is not proved that an elite class was in charge of the coin production (Kellner 1990: 41).

Sanctuary A and D are assumed to be elite buildings (Sievers 2002: 169). They may well have been the places where rituals were performed, where communal meetings were held or where a governing body resided. But the specific status of the individuals involved cannot be retrieved. The large enclosures of the *oppidum* are assumed to be the elite residences (e.g. Schubert 1994: 189; Maier et al. 1992: 211; Sievers 2002: 170; 2003: 125). However, a whole range of objects that are traditionally considered to be evidence for elite are not clearly related to the enclosures. Wagons and horse gear are not concentrated near the enclosures. This is shown in figure 50c. Weapons are widely distributed over the entire *oppidum* area, even in the north of the north area and in the Altenfeld area (Figure 50c; Maier et al. 1992: 156, 165-166, 178; Sievers et al. 1998: 640-641). The *amphorae*, *campanian* pottery and glass vessels are not only found near the enclosures (Figure 50a). Sievers (2002: 168) assumes that the golden cult tree (Figure 60 and 61) and the horse statue (Figure 62) "could only be explained by the existence of a social elite". Indeed, these extraordinary objects may well imply that there was an elite person or group with religious functions at the *oppidum*. However, they are not located near the enclosures. In fact the horse statue and mutilated weapons are found near sanctuary B. The cult tree is found near sanctuary E (Section 8).



Figure 50a: Distribution of glass vessels, *amphorae* and *Campanian* pottery (Sievers 2002: 168, fig. 2).



Figure 50b: Distribution of hearth tools, horse gear and wagons (Sievers 2002: 169, fig. 3).



Figure 50c: Distribution of tongs, agriculture tools and concentrations of querns (Sievers 2002: 169, fig. 4).

In Manching, there is no evidence for a warrior elite. The weapons in deposits do not necessarily belong to elite warriors. They are not concentrated in a specific area or near the assumed elite farmsteads. They are found near sanctuaries and may rather reflect cult activities. The weapon burials in the La Tène B/C cemeteries do not indicate the existence of a distinct warrior class. They don't have an extraordinary shape or structure, and they don't contain the most valuable grave goods or an extraordinary amount of grave goods (Table 3; Appendix 3: Steinbichel 3, 20, 21, 36 and 40). The weapons in the burials may well indicate a kind of social status that is different from that of a warrior class. For instance, the woman who is buried with a sword is laid down in a seated position without her head (Appendix 3: Steinbichel 14). This is an unusual treatment of the dead. In conclusion, the weapons in Manching do not indicate the existence of a warrior elite.

cemetery	burials	weapon burials	sword	lance	shield	sword, lance and shield
Steinbichel	43	15 (30%)	13	12	12	10
Hundsrucken	22	1 or 2 (4 or 9 %)	2	1	1	0

Table 8: The amount of burials, weapons burials and weapon types in the La Tène B/C cemeteries (Based on Krämer 1985: 75-91).

The La Tène D burial rite does not reveal a differentiation among the burial population. The human bones are deposited in rubbish pits. Complete skeletons are exceptional. They are not restricted in sex and age and they are not confined to a distinctive area (Section 8). They may

well represent individuals with a special status. Unfortunately, the lack of grave goods impedes generalised conclusions.

Conclusion

It is not known how many people lived at the *oppidum*. It is likely that families stayed in Manching. They may well include foreigners from various regions, such as the Boii. The organisation of the settlement implies the existence of central coordination. But there is no clear evidence for a distinct hereditary elite group, such as warrior elite, or for a strict hierarchical society. The settlement and burial evidence rather suggests a relatively egalitarian population. Specific personalities may have been buried or displayed differently because of personal status, not because of differentiation in wealth or possessions. There may well have been a social elite in Manching, for instance religious principals.

9. Religion: Communal cult place?

Sievers (2003: 30) agrees that religion played an important role in the organisation of Manching. Within the *oppidum* there are five possible sacred places and various votive objects and hoards. Furthermore, the *oppidum* itself is a large burial place.

Sanctuaries

Four to five atypical structures in the *oppidum* are highly likely to be public places with probable ritual functions. They are called sanctuaries because of their unusual architecture, an exceptional plan or an enclosure ditch, and because of the occasional presence of particular objects (e.g. Schubert 1983: 14). I adopt the name sanctuary A, B and C (Sievers 1991: 146-155) for convenience sake and I add two other sanctuaries, D and E, according to this line of reasoning (Figure 51). Sanctuary A is located in the centre of the *oppidum*. Sanctuary B is located 250 to its west, at the east edge of the central excavation area. Sanctuary C lies in the north part of the south area. Sanctuary D is the sanctuary on the eastern edge of the Altenfeld area. Sanctuary E is an atypical building in the north area.

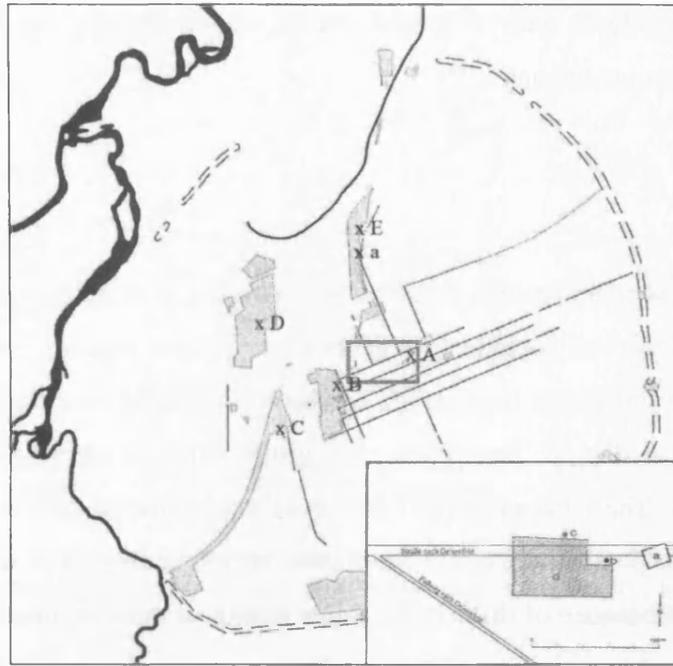


Figure 51: Plan of the sanctuaries. A-E: location of the sanctuaries; e: location of the cult tree. Inset: a: sanctuary A; b-c: deposits; d: pavement (based on Sievers 1991: 147, fig. 1).

Sanctuary A has several construction phases (Figure 52). The first sanctuary was a square building and in the two following periods it was a polygonal building of twelve sides (Schubert 1995: 165; Sievers 2003: 28). In each phase it was enclosed by a square ditch. At least in the earliest phase there was a palisade in the ditch. The complex is 35 m² (Sievers 2003: 28). The earliest sanctuary may have been built as early as the end of the 4th century BC. Its ritual function is suggested by six exceptional drinking vessels with a probable cult function, by the Hallstatt sword in the enclosure ditch, which might symbolise the ritual connection to the past, and by an exceptionally large amount of bones of small children in the vicinity (Van Endert 1991: 97; Sievers 2003: 30).

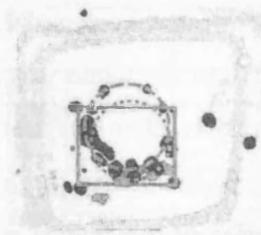


Figure 52: Sanctuary A (Sievers 2003: 30, fig. 26).

The sanctuary is also significant because of its location. It lies in the earliest settlement core in the very heart of the *oppidum* area and adjacent to a remarkable stone pavement (Sievers 2003: 30). Unfortunately, the vicinity of the sanctuary was not completely excavated (Sievers 1991: 146; 2003: 30). The stone pavement is a large public place of 0.4 ha³⁴. It may well have been the scene for ritual activities. There are three deposits of weapons and tools at the edges of the pavement (Figure 51: b and c; Sievers 2003: 27). The objects date from the end of the 4th century BC until the 2nd century BC and must have been accumulated over a long period of time (Sievers 2003: 27). It is possible that they were once kept or displayed in sanctuary A, like in Greek sanctuaries (Sievers 2003: 30). This would fit in the statement of Poux (2006: 196) that a sanctuary collected objects of all inhabitants in order to symbolise their unity and their common identification with the place.

Sanctuary B is located at 250 m west of sanctuary A (Figure 51; Sievers 1991: 32, 146). It comprises one side of a presumed square or rectangular ditched enclosure that is 22 m long (Figure 53). The sanctuary has various construction phases. It dates to the 3rd and 2nd century BC. A possible La Tène D phase has not been identified (yet) in the jumble of postholes (Sievers 1991: 153; 2003: 31-32). A ritual function is suggested by the fragments of the horse statue and by the mutilated weapons that are dispersed in its near vicinity (Figure 64). They had probably been displayed in the sanctuary (Sievers 1991: 153).

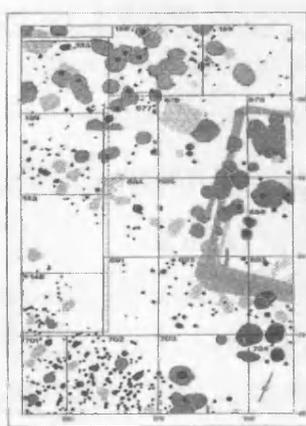


Figure 53: Sanctuary B (Sievers 2003: 32, fig. 28).



Figure 54: Sanctuary E and its vicinity (from Maier et al. 1992: suppl. 5).

³⁴ The stone pavement is 50 x 80 m (Sievers 2003: 27)

Sanctuary E is a rectangular building in the centre of a circle of postholes (Figure 54). It belonged to the earliest phase of the north area which probably coincides with La Tène C2 (Maier et al. 1992: 326). At that time it was an isolated structure (Maier et al. 1992: 36). Maier et al. (1992: 36) point to similarities with sanctuary A and therefore it may well be interpreted as a sanctuary. Another indication for a ritual function is the golden cult tree that is found at 70 meters distance from sanctuary E (Figure 51: e). It was located inside a large square ditch enclosure, which may have been served as a public place (Section 5).

Sanctuary C consists of a complex of buildings which includes various atypical structures (Figure 55). The east and south parts of the sanctuary are not excavated (Schubert 1983: 10-11). The sanctuary has a clear boundary on the north side along a street. In the oldest phase the boundary consisted of a double row of posts, maybe a gallery. Later it was probably built over (Schubert 1983: 10-11). The small four-post structure (Figure 55: 1) is the earliest building. Inside there is a 70 cm deep shaft (Schubert 1983: 11). This structure was replaced by a larger square building. There is also a central round or polygonal building (Figure 55: 3; Schubert 1994: 186; 1995: 171). The U-shaped structure formed by parallel ditches (Figure 55: 4) may be an open altar place with stairs or an altar enclosed by a wall like the one in Trier-Altachtal, according to Schubert (1983: 15). The sanctuary also contained normal or profane structures. The two rectangular buildings that border the street may be houses, like the priest houses in Trier-Altachtal (Figure 55: 5; Schubert 1983: 15). The four-post buildings may be storehouses, or rather small chapels, *aediculae* or treasuries (Schubert 1983: 15).

Schubert (1983: 16) points to similarities between sanctuary C and the temple area in Roman Cambodunum (Figure 56 and 57). A ritual function of sanctuary C is also suggested by the large amount of shafts, which recall the shafts in some sanctuaries according to Schubert (1983: 14-15). There is no additional information on the content or nature of these shafts. The animal bones found in sanctuary C do not attest the practice of animal sacrifices as they do not resemble sacrificial remains³⁵ (Schäffer and Steger 1985: 61-70)

³⁵ In the sanctuary Gournay-sur-Aronde there were clearly more bones of sheep and cows than bones of pigs. The animals died mostly at a younger age. Only horse, donkey and cow bones had traces of blows. (Schäffer and Steger 1985: 65-70).

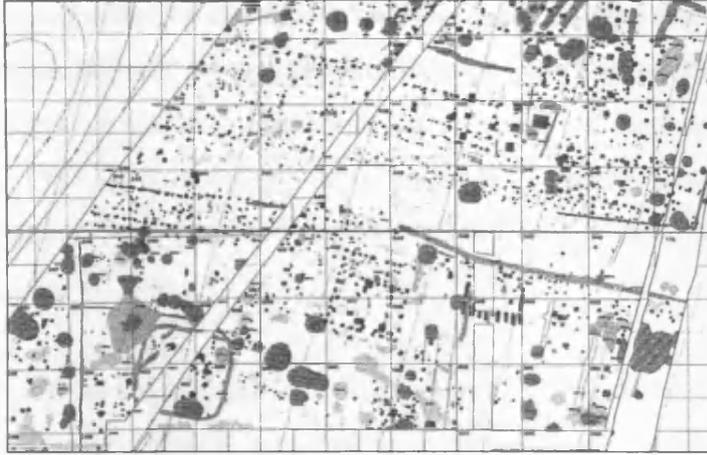


Figure 55: Sanctuary C (based on Lorenz and Gerdson 2004: suppl. 6 and 7).

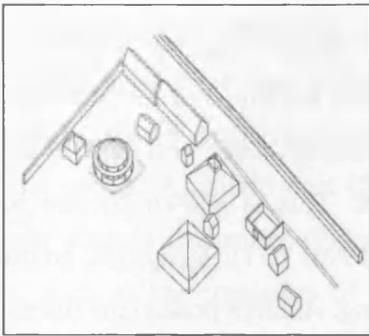


Figure 56: Hypothetical reconstruction of sanctuary C, first period (Schubert 1983: 16, fig. 1).



Figure 57: Temple area of Cambodunum, Kempten (Schubert 1995: 169, fig. 24b).

Sanctuary D is another complex of buildings (Figure 58). In the south, it borders an east-west road and in the east it may be bordered by a ditch (Sievers et al. 1998: 628). In its first phase, sanctuary D consisted of two similar enclosed buildings about 10 m apart (Figure 58: green). Their entrances are both directed towards the open place that might have been a public square. In the second phase, the area was covered by a large rectangular building of 308 m² that was composed of regular rectangular units (Figure 58: red). Its extraordinary structure underlines the special significance of this building (Sievers et al. 2002: 358; 2003: 115). At 10 metres north, there was another unusual large square building of 144 m² (Figure 58: red). It probably consisted of a central building with a partition of freestanding columns and a wall (Sievers et al. 1998: 630; Sievers 2003: 115). Inside the building, there is a 1.30 m deep shaft with a large post (Sievers et al. 1998: 631; Sievers 2003: 115). Such buildings are only known from *Viereckschanzen* (Sievers et al. 1998: 631 note 30) which are large enclosed public spaces with a possible ritual function (Appendix 3). The ritual function of sanctuary D is also

suggested by the discovery of a plate with fire traces and a large amount of burned animal bones. It is highly likely that it served a cult-religious purpose (Sievers et al. 2002: 258).



Figure 58: Sanctuary D. green: earliest phase, red: later phase (Sievers 2003: 33, fig. 29).

The *oppidum* had no less than five buildings or complexes of buildings that served as a public place and that probably had a ritual function. The two large buildings of sanctuary D (Figure 58: red) are often considered to be representative public buildings (Sievers 2003: 115). They may well have had ritual and profane functions alike. This is shown by the increased industrial activity around sanctuary D (Sievers et al. 1998: 631). Religious, political and economic functions are all entangled. That is not surprising. Ancient politicians often resorted to rituals and prophecies when significant decisions had to be taken. Smiths and other craftsmen were thought to possess mysterious powers. They were considered 'exceptional' individuals (Kunkel 1961: 323).

Human bones at the *oppidum*

About 5,000 human bones and parts of skeletons were found in the *oppidum* (Lange 1983: 19; Hahn 1999: 137). The bones do not indicate violence or the destruction of the *oppidum* because they were deposited during the whole occupation period of the *oppidum* (Lange 1983: 106). Lange (1983: 5) aptly states that Manching appears to be a large bone house. It raises questions about the meaning of these practices and about the meaning of the *oppidum* as a ritual space.

The individual bones reveal a conscious selection: *femur*, *tibia* and *humerus*, the long bones of arms and legs, alone make up 50 % (Lange 1983: 4; Hahn 1999: 138; Sievers et al. 1998: 656). The majority of these long bones bear marks that are typical for the damage done to separate the bones and to remove remains of flesh and sinews (Lange 1983: 24-25; Hahn

1999: 138). The bones often bear traces of animal gnawing, but there are no traces of exposure to the elements (Lange 1983: 21, 27). The bones were deposited in pits, ditches and postholes, where they were regularly mixed with animal bones and other rubbish (Boesneck et al. 1971: 5; Lange 1983: 3). Cannibalism is to be excluded since there are clear differences between the treatment of the human bones and the animal bones (Lange 1983: 21; Hahn 1999: 138).

The bones are presumably the remains of a two-phased funerary practice. First, the body was laid out somewhere, maybe outside the settlement core or even outside the *oppidum*, for instance in a chosen place or sanctuary. Some time after death and before complete decomposition, specific limbs, mainly long bones, were cut off. The selected bones were left in the soil. Dogs might have dug up some bones afterwards. The rest of the body was cremated. This practice is also revealed from the cremation burials in Bad Nauheim, where the long bones are also missing (Lange 1983: 111-112). Cremation is attested near the Dürre Au and the central Altenfeld area (Sievers et al. 1998: 662). These areas are mainly open spaces with ditched enclosures (Plan 3). They may have served as public spaces with ritual functions, such as the cremation of the dead bodies (Section 5). It is noteworthy that this burial rite was exclusively reserved for adults. Children's bones are not damaged. The human bones in Altenfeld that were not cremated all belonged to newborn children (Lange 1983: 23; Sievers et al. 1998: 662).

Sometimes skeletons were also buried as part of the two-phased ritual practice. Halfway through their decomposition the skeletons ended up in the soil (Sievers 2003: 100). They were often, complete or incomplete, deposited in pits and ditches together with other rubbish, just like the individual bones. However, skeleton burials are rare. It is not clear why some people were buried in this manner. There is no restriction to specific sex or age groups (Lange 1983: 7). The skeleton burials do not display wealth or a possible high class. They are mainly accompanied by other bones only (Appendix 3). Lange (1983: 110) argues that the skeleton burials might belong to foreigners, buried according to their own burial rites, because they would have belonged to exceptionally tall people. However, nine skeletons are a small sample to deduce general conclusions on the length and the origin of the bones. The skeleton burials are not confined to a distinctive area at the *oppidum*. They may well indicate an exceptional treatment of the dead. Very often they were buried in bizarre positions. For instance, a spinal column was laid between someone's legs (Figure 59). The skull of a 35-40 year old man

found nearby could also have belonged to this burial. Presumably the skeleton burials belonged to outstanding individuals with a special social status that was not related to sex, age, or wealth.



Figure 59: Human skeleton in a ditch in the north of the Altenfeld area (Sievers 2003: 101, fig. 107).

Skulls are often deposited separately. The lower jaw is generally missing. Often also the back of the skull is missing and only the face is left (Lange 1983: 6; Sievers 2003: 101). Therefore, the skulls are considered to be trophies (Lange 1983: 106; Hahn 1999: 141). Such interpretation is favoured by the ancient accounts that the Celts kept the embalmed skulls of their enemies at home (Sievers 2003: 101). Furthermore, many skulls bear marks of slash wounds, there are many skulls of young men and there would be a predominance of ‘foreign’ types of skulls (Lange 1983: 36, 79, 82, 107-108). However, some caution is needed. In fact, the skulls reflect a very normal sex and age proportion. Only one out of six male skulls had a deadly wound, and only sixteen out of sixty skulls had any mark of blows at all. There is no satisfactory evidence for a racial classification (Lange 1983: 79, 82, 107). Skull burials might be just another type of funerary practices. Some of them might have been trophies or other signs, for instance the skulls that were exposed in front of the east gate (Section 3).

I agree with Sievers (2003: 103) that the human bones in the *oppidum* are not related to only one ritual practice. Various rituals must have existed side by side. The isolated bones are the remains of a two-phased burial rite for adults. The skeletons might belong to children and outstanding individuals. Some skulls might be trophies (Lange 1983: 106). Others might reflect the devotion of particular special individuals, for instance the perforated skull of the old man exposed at the east gate. But the majority of the skulls might be related to the funerary practice and death cult. These new burial rites are in line with the change from inhumation burials in La Tène B/C to cremation burials with lack of burial goods in La Tène D (Hahn 1999: 137). This change was rather a gradual evolution. Some bodies in the La Tène

B/C burials were already missing those specific body parts, the long bones, that were deposited separately in La Tène D (e.g. Appendix 3: Steinbichel 24 and Hundsrucken 4). The new rituals were introduced after the beginning of settlement, before or at the time of the construction of the ramparts (Lange 1983: 17; Maier et al. 1992: 232). The various stratigraphical layers with human bones point to a long-lasting tradition (Lange 1983: 19-20). The human bones appear to be distributed over the entire *oppidum* area. Similar bone deposits in settlements are found in Danebury, Basel-Gasfabrik, Altenburg-Rheinau, Breisach-Hochstetten, Bad-Nauheim and in Bohemia. The latter points again to a parallel between Manching and Bohemia (Lange 1983: 105).

Manching was not just a place with some ritual activity. The *oppidum* of Manching served as a large burial place, where people were cremated and deposited. Manching was therefore to some extent also a place for the devotion of ancestors. It may have connected the living with the dead and the people from the region with the communal place.

Sacred or ritual objects

An extraordinary object was found at Manching: a gold-plated wooden tree that is at least 70 cm long and that is decorated with nine heart-shaped leaves, buds and fruits (Figure 60; Maier 1990: 139; 1991: 245). A flat gold-plate may have belonged to an additional base or chest (Maier 1990: 140). The tree is generally interpreted as cult tree. The ritual interpretation is based on its uniqueness, on its circular ornaments (Figure 61) and on its similarity to sacred trees in Celtic mythology and to the ancient garlands that were worn at symposia, weddings and funerary rituals, as well as by victors and by the gods (Maier 1990: 149-158). Furthermore, it closely resembles the deposited wooden sticks in *Viereckschanzen* that are generally accepted to be ritual objects (Appendix 3; Maier et al. 1992: 336). The type of leaves seems to reflect a depiction of *convolvulus/apomea* or hallucinogenic seeds (Green: personal communication). The cult tree is found in the north excavation area at 70 metres from sanctuary E (Figure 51: e) close to the Hundsrucken cemetery (Sievers 2003: 34). It was located in a large ditched enclosure that probably served as public place with a ritual function (Section 5). The cult tree was made in the 3rd century BC (Sievers 2003: 34). It therefore belonged to the earliest settlement phase or La Tène C1. It was contemporary to sanctuary E and the cemetery, though, it may as well be deposited after several generations of use (Maier et al. 1992: 336). The exact function of the golden cult tree is not clear. It may have been used

at processions (Maier 1990: 157; Sievers 2003: 36). As its style is Hellenistic (Maier 1990: 152-153), it may even symbolise a link with the Hellenistic world.

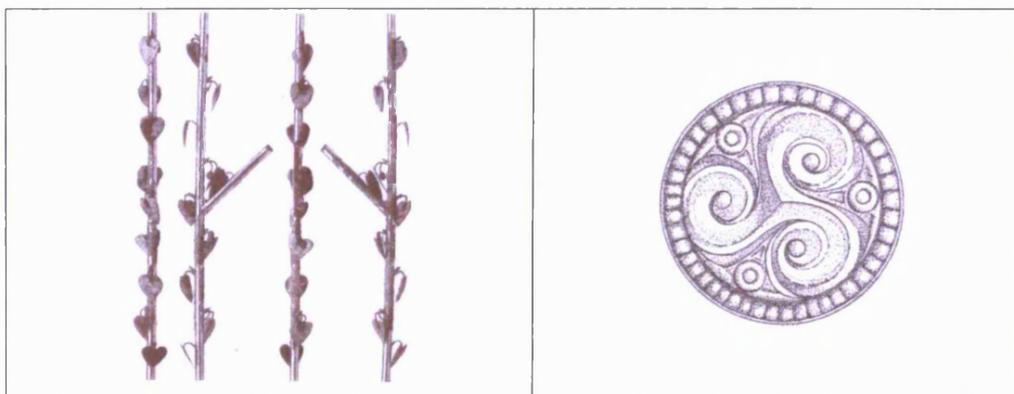


Figure 60: Reconstruction of the gold plate cult tree (Maier 1990: 136, fig. 5).



Figure 61: Circular pattern on the gold of the cult tree or accompanying chest or base (Maier 1990: 163, fig. 18).

Another exceptional object is the 70 cm high iron horse statue (Krämer et al. 1989: 526). It is an exceptional large metal sculpture (Sievers 2003: 117). Only the head, two legs and some other parts are preserved (Figure 62; Krämer et al. 1989: 523; Sievers 2003: 96). As the scattered fragments³⁶ are all found near sanctuary B, it was probably displayed in the sanctuary (Gebhard and Uenze 1989). Animal statues were used as sacrifices, votives, tribal *insignia* or idols (Krämer 1989: 539). Similarly, in sanctuary A another iron object was found (Krämer et al. 1989: 532). The horse statue was made in La Tène C and it must also have been destroyed in La Tène C (Krämer et al. 1989: 528-529; Sievers 2003: 96). Sievers (2003: 98) relates its destruction to the destruction of sanctuary B.

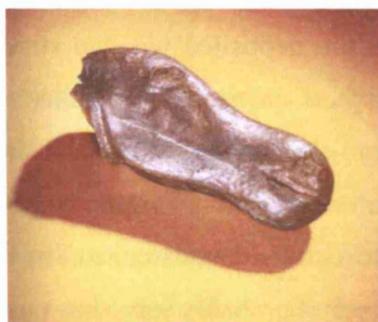
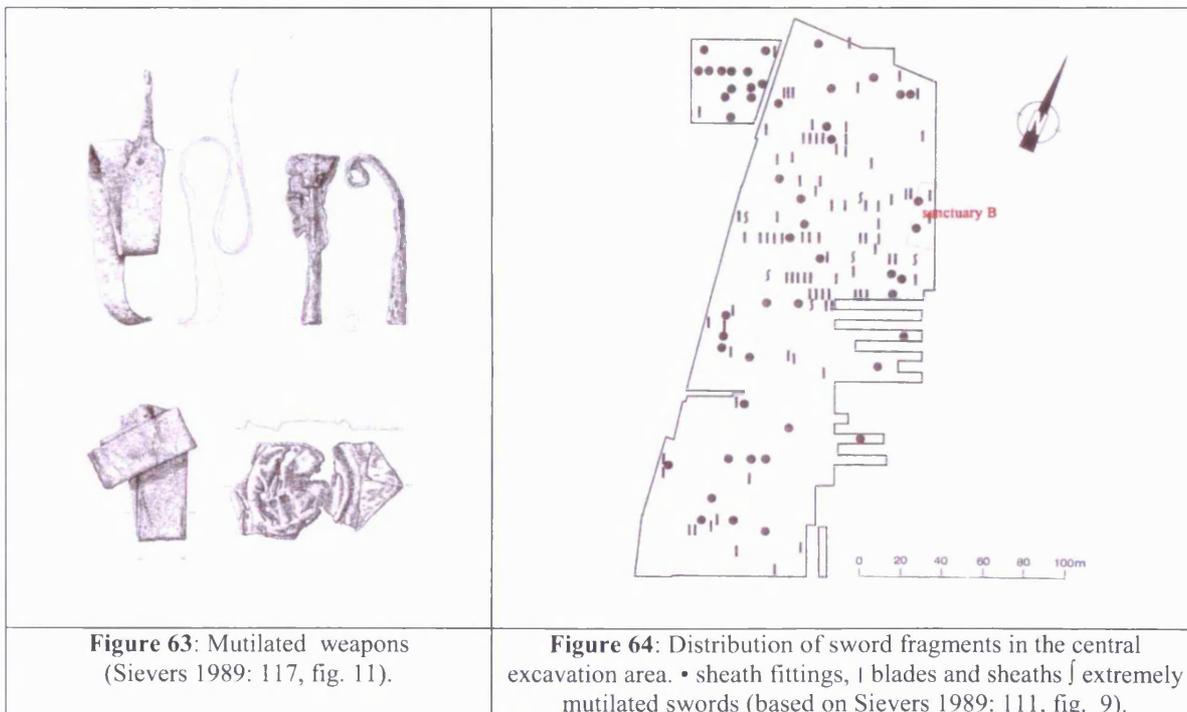


Figure 62: Head of the horse statue (Sievers 2003: 97, fig. 104).

A large amount of weapons are found in Manching: about 600 fragments were known in 1989 (Sievers 1989: 97). The weapons date from La Tène B2 to La Tène D (Sievers 1998: 99). The complete weapons and the large parts of swords, sword chains, shields, lances are restricted to La Tène C and they are only found in the central area (fig 73; Sievers 1998: 111,113; section 5). Sievers (1989: 109) wonders if they derived from the destroyed Hundsrucken cemetery, but in that case I would expect weapons in the northern area also. Many of the swords and sheaths are intentionally bent and mutilated (Figure 63; Sievers 1989: 104, 117). They might have been deposited in sanctuary B since they are all concentrated near this sanctuary (Figure 64). The custom to destroy weapons is known from burials, cult deposits and sanctuaries such as Gournay-sur-Aronde (Sievers 2003: 95). Sievers (2003: 36) even relates them to the return of mercenaries from the south because of the origin of some deposits. The other sanctuaries in Manching have no concentration of mutilated weapons, so it may be a La Tène B/C tradition only. The other weapons are fragmented and deposited in pits and ditches with rubbish throughout the entire *oppidum*, just like the human bones (Sievers 1989: 116). These weapons are not restricted to La Tène B/C or to a specific area. Because of these striking similarities to the deposition of human bones, it is likely that they underwent the same treatment as part of the new burial rite in La Tène D.



³⁶ The horse head was found in the central excavation area, in section 144 (Krämer et al. 1989: 519, 526). This is located south west of temple B. The other parts were found up to 29 metres away, all at the same side of the road (Krämer 1989: 528).

Some human-shaped images might depict gods or sacred individuals. Two lead weights depict a person with a torc around the neck and an object in the arms which might be a raven or a plough. At the right side of the head there is a sword-like object (Figure 39; Sievers 2003: 83). The torc might indicate that the person is a god (Krämer 1997: 73). There is a strong similarity to the Greek city weights with images of the city god (Krämer 1997: 77-78). A third lead weight might also have religious connotations as it was decorated with circles and squares and a large wheel at the back (Figure 39; Krämer 1997: 74). The weights are a clear example of the integration of ritual in trade and exchange, and in every aspect of life.

The human head on the bronze fitting is interpreted as the mask of a goddess because of the torc, the hairstyle and the eyes closed in trance (Figure 65). It had probably decorated a La Tène B/C cauldron (Van Endert 1991: 42-43). Another human head adorned a linch pin (Figure 66; Sievers 2003: 138). It may recall the skull cult. The face of a *silenus*, the companion of the god Bacchus, probably decorated the east gate in La Tène D1 (Figure 24; Van Endert 1991: 44-45).



Figure 65: Bronze head of a goddess (Van Endert 1991: table 42).



Figure 66: Linch pin with human head (Sievers 2003: 138, fig. 136).

There is a large number of animal depictions in Manching (Sievers 2003: 119). They are considered to have symbolic and ritual connotations (e.g. Van Endert 1991: 51; Sievers 2003: 117-119). However, such interpretation remains hypothetical. They are mainly depictions of horses, bulls, birds and dogs (e.g. Figure 43 and 44). A La Tène B/C bull statue was found in the south of the *oppidum* area³⁷. Van Endert (1991: 55) refers to Plutarch's (Marius 23) report that the Cimbri made a treaty near a bronze bull. The *oppidum* may well have been the venue

³⁷ The bull statue was one of the finds that were found in Leisenhart field in the 19th century. This field was situated in the south east of the *oppidum* area (Van Endert 1991: 1; Van Endert 1987: beilage 13).

for treaties and alliances, but the depiction of a bull is not to be seen as adequate evidence for such interpretation.

In Manching twenty nine wheel pendants were found by 1991 (fig 76; Van Endert 1991: 15). Wheel pendants are generally the most frequent amulets, but in Manching no mass offerings are known (Sievers 2003: 120). Maybe they were not common in the region. The wheel pendants may as well have served as coins (Van Endert 1991: 15). Many other bronze pendants are found, some of which might very well be amulets, such as hand shaped nail cleaners (Figure 67) and rings covered with horned animal heads and knot rings (Van Endert 1991: 22; Sievers 2003: 120).



Figure 67: Wheel amulets and nail cleaner
(Sievers 2003: 121, fig. 125).

There are many large deposits in Manching. Three deposits of weapons and tools were located in the vicinity of sanctuary A (Figure 51: b and c). Two deposits were found near sanctuary B; one contained twelve bronze ornaments for horses, the other was a bronze purse with a golden finger ring and six golden coins of La Tène C (Sievers 2003: 98). The Leisenhart-finds contained a few glass objects, parts of weapons, drinking service, wagons and horse gear, amulets, dress and jewellery, and the bull statue. They are found between the centre and the south gate (Sievers 2003: 121-123). Two other coin deposits are the Quinarius-treasure (Sievers 2003: 13, 98) and the deposit of Boii staters and a lump of gold (Sievers 2003: 99). The deposits can be seen as ritual offerings, especially those in the vicinity of a sanctuary.

Conclusion

The *oppidum* of Manching is soaked with ritual. I agree with Sievers that the religious function may have been a decisive factor for the development of Manching (Sievers 2003: 36). There is ritual continuity from La Tène B/C, and even from the Hallstatt period onwards. Manching was a regional ritual place. Near the central sanctuary the first settlement emerged. The religious significance of Manching grew as the settlement grew. More sanctuaries were

built for religious and profane activities. Manching became a burial place where people were cremated and buried. Skulls and artefacts such as the cult tree, the horse statue and the various deposits, as well as smaller objects indicate the wide variety of ritual at Manching. Sanctuaries are the ideal meeting places for political agreements as well as for personal and trade transaction because of the protection by the gods and ancestors. Therefore, Manching was a sanctuary, market place and meeting place (Knopf et al. 2000: 147).

9. Decline and end of the *oppidum* and/or Roman period: Why did it end?

The way the *oppidum* came to an end and its role in the subsequent period will shed light on the *oppidum*'s significance. It is generally acknowledged that the *oppidum* lasted until the second half of the first century BC (Van Endert 1987: 73-74; Gebhard 1991: 101). However, the absolute chronology of the latest *oppidum* phase remains vague. Stöckli (1979: 196) argues that the end of the *oppidum* could date to 50 BC, while Gebhard (1991: 104) states that the most recent find is dated to the third quarter of the first century BC.

It is often assumed that Manching collapsed all at once. An enemy attack is concluded from the fact that the east gate burned down and that it was never restored (Van Endert 1987: 32). However, there is no known historical event that can be related to the end of the east gate (Van Endert 1987: 91). The few weapons near the gate are not surprising since a gate is logically a place to be guarded. Many explanations are sought to insist on the enemy attack theory. Because no weapons are found in the culture layer Sievers (1989: 120) argues that the inhabitants may have handed over their weapons after surrender. The lack of cultivated plants is thought to indicate, according to Stöckli (1979: 201), that the inhabitants had the time to take all their supplies with them, or that the *oppidum* was abandoned before the harvest or after a siege, or that it was all consumed by the conquerors. There are many theories but not much evidence for a catastrophic end (Section 3).

Instead, it is likely that life at Manching has faded out. There is much evidence for gradual changes. The spread of *fibulae* indicates that the settlement shrank in La Tène D1b (Figure 15d). In the north area³⁸, for instance, settlement decreased and became less coherent, while iron working did continue in La Tène D1b (Maier et al. 1992: 62-63, 334). There was also a

general decrease in material culture. In La Tène D1, from 80/70 BC onwards, the imports³⁹ ceased to reach the *oppidum* (Gebhard 1991: 104). By the end of La Tène period, from 50 BC onwards, no significant bronze objects are found at Manching (Van Endert 1991: 106-107). According to Schwab (2002: 11, 15), there was also a lack of available metal towards the end of the *oppidum*.



Figure 68: Plan of Manching in the Roman period: distribution of finds (red marks) (Krämer and Schubert 1970: suppl. 6).

Maybe Manching did not end at all. Lorenz and Gerdson (2004: 128) questions the assumed discontinuity of settlement. Some buildings may have existed after the presumed abandonment of the *oppidum*, and human activity in the former *oppidum* area is demonstrated during the reign of Augustus (Van Endert 1987: 74). There was a settlement in the east-central part of the former *oppidum* (Figure 68). This settlement has been identified as the Roman *mansio*⁴⁰ Vallatum, with workshops, accommodation and various places where one could stay over and change horse (Albrecht 2009b: 1). However, recently the identification of

³⁸ For the south and central area, no chronology is available yet (Maier et al. 1992: 335). The Altenfeld publications (Sievers et al. 1998; Sievers et al. 2002) do not discuss chronology.

³⁹ Probably Gebhard means Mediterranean *amphorae*, since they lasted until the 80/70's BC, according to Will (1987: 36)

⁴⁰ A *mansio* is an official stopping place on a roman road.

Vallatum has been questioned (Albrecht 2009b: 1). Anyway, if Manching is not Vallatum, then the finds must have belonged to a settlement that may well be a continuation of the *oppidum* Manching. The settlement or *mansio* was not isolated. There was another settlement at the left bank of the Paar, a Roman camp at 5 km distance, in Zuchering, and a Roman fort at 3 km distance, in Oberstimm (Schubert 1995: 139; Krämer and Schubert 1970: 49).

But things had changed. Iron quarrying, a major activity of the *oppidum*, came to an end in the whole south Danube region, according to Reinecke (1934/35: 140-141). The Manching cattle market was transferred to the Roman fort at Oberstimm, which became a place for trade (Section 5; Albrecht 2009a: 1). There was no continuity of ritual activity in the former *oppidum* area, contrary to the *oppidum* of Titelberg, for instance (Chapter 5). People somehow lost the connection with the former major ritual place. The role of market and meeting place is strongly related to that of ritual place. Oberstimm must have taken over the role of Manching as the focal point for the community.

The settlement or *mansio* in the *oppidum* area was finally destroyed by the Alamanni in 233 AD (Krämer and Schubert 1970: 53). Later on a Roman fort, Vallatum, was built as part of a series of *limes* defences. This fort is known from the *Notitia Dignitatum*⁴¹, but it has not been discovered yet. It is said to have been abandoned in 400 AD (Krämer and Schubert 1970: 55-56).

Conclusion

Manching probably declined slowly. The settlement continued into the Roman period and it may have become a Roman *mansio*. But the *oppidum*'s regional market function, and as a result the whole range of functions of a central meeting place, were moved to Oberstimm. That marked the end of the settlement's designation as an *oppidum*. It also indicates that these functions were the very essence of the *oppidum* at Manching.

⁴¹ Footnote 14.

10. Conclusion: the significance of the *oppidum* of Manching

The site analysis of Manching has proven that the traditional urban features fail to categorise Manching as urban or as non-urban. There was no functional zoning, no orthogonal street plan and there was evidence for small-scale agriculture in the *oppidum*. However, this is not different from actual early Mediterranean cities. Furthermore, Manching is well-planned: the settlement is well structured and has highly standardised buildings. A clear sense for monumentality is shown by the ramparts, first built in the elaborate *murus gallicus* style, by the impressive gates with a tower and a pavement, and by a large paved square in the centre of the *oppidum*. There are various large public places and probably five public buildings, some of which were large enough for mass gatherings. This indicates that the traditional urban features are not adequate and that the question to be or not to be a city is irrelevant. Manching emerges as an alternative type of a high-level settlement. It may well reveal a different form of urbanism.

Manching cannot be interpreted as a genuine central place that dominates the region. Iron production was a significant activity in the *oppidum*, but it did not happen on an exceptional scale. Manching was not a trade centre in control of trade routes. Major communication routes are not clearly evidenced. The location on the river Danube was fine but not outstanding. Long-distance trade was less important than regional trade. Yet, the *oppidum* was a significant regional market. Coin balances, standardised weights and a well-defined currency attest to the significance of the market and to its central organisation. For these reasons Manching may appear to have some characteristics of a solar central place, though a market monopoly is not demonstrated and political central functions over the region cannot be retrieved.

Dependence on Mediterranean trade is not convincingly demonstrated. Mediterranean coins and imports constitute only a small share of the material culture. Exchange contacts with the east were predominant, mainly for the import of raw materials. There is no clear evidence for a hierarchical society led by an elite class. On the contrary, according to the settlement and burial evidence, society appears rather equal. Finally, the detailed study of Manching reveals its individual and particular character. Manching stands out because of its unusual location in a plain, its exceptional finds such as the 'city weights', the golden cult tree and the iron horse

statue, because of its peculiar burial ritual, its five public places/sanctuaries, and because of the fact that the settlement started well before La Tène D.

The case-study of Manching offers a great contribution to our understanding of the function and significance of the *oppidum* in contemporary society. The *oppidum* was first of all a ritual place. Manching started as a place with cemeteries and sanctuaries. Around the central sanctuary the first settlement arose. At the end of La Tène C the circular ramparts were constructed and this sanctuary lay in the very centre. The *oppidum's* significant ritual function is enhanced by its use as a burial place. The *oppidum* was a regional market place. The significance of the market is shown by the amount of coins, and by the use of standardised weights and coin balances. The amount of animal bones may indicate that Manching was, among others, a large cattle market. This regional ritual and market place attracted people, such as the high quality artisans who stayed and worked within the *oppidum* ramparts. Although dense settlement was not its primary function, Manching has characteristics that recall ancient cities, such as its planned lay-out, the public buildings and monumental open places and squares, and even the use of writing. Furthermore, Manching was centrally organised. This is indicated by the standardisation of the buildings, the currency and the weights. There must have been a coordinating body. But there is no evidence for a hereditary elite, such as warrior class, and for the subsequent hierarchical society.

In conclusion, Manching is not the traditional central place with authority over the region. Manching was the central meeting place where the inhabitants of the region performed their communal religious, economic, political and social activities. It was the vibrant symbol of their common identity. This may well be the essence of the *oppida*. Other case-studies will corroborate these tentative conclusions.

Appendix 1: Chronology

The *fibulae* draw a good picture of the chronology of Manching (Figure 70). The chronology in South Bavaria is based on Kellner (1990: 31), combined with Gebhard's (1989: 127) detailed chronology of the La Tène C period (Figure 69).

Early La Tène	La Tène A	ca. 450 – ca. 400 BC
Middle La Tène	La Tène B	ca. 400 – 260/250 BC
	La Tène C1a	260/250–220/210 BC
	La Tène C1b	220/210–175/165 BC
	La Tène C2	175/165–125/115 BC
Late La Tène	La Tène D1	125/115 – ca. 50 BC
	La Tène D2	ca. 50 – ca. 10 BC

Figure 69: Chronology of South Bavaria (From Gebhard 1989: 127 and Kellner 1990: 31, table 6).

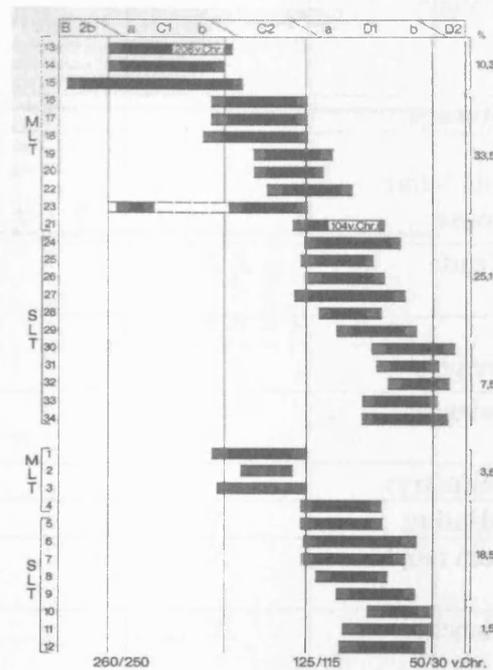


Figure 70: Chronology of Manching according to the *fibulae*. Group 1-12 are bronze *fibulae*, 13-34 iron *fibulae*. (Gebhard 1991: 95, fig. 42).

Appendix 2: Description of the major indications of industry in every excavation area

	Central	South	North	Altenfeld	East gate
Agriculture			X?	X	X
tools			Many knives (butchery?)	In north part	Ploughshare etc.
features			Ditch enclosures	Ditch enclosures?	
Storage					
pits / store house			Exceptional amount		
Trade				X	X
weights				2 in the north part	
balances				3 fragments in the north part	1 balance
Industry:					X
Minting	X				X
coin mould	X		Less than in central area	In the north part	
planchet	X			In the north part	
concentration of coins					
semi-finished products					
others				In the north part: 1 punch	
Metal work	X		X	X	X?
slag	X		X	Rare in the north part; numerous in the south part	X

Appendix 3: Description of the burials of cemetery Hundsrucken and Steinbichel, and the complete skeletons at the *oppidum***1. Detailed description of the burials in the La Tène B/C cemetery Hundsrucken**

	weapons				jewellery							objects	body	preserv	sex/age	orientation
	sword	lance	shield	others	neck	ankle	up arm	arm	finger	fibulae	belt					
Hunds 1												2 ring				
Hunds 2										4		1 ring	cer			
Hunds 3												5 rings				
Hunds 4												1 ring		only low jaw	child 5/6y	
Hunds 5						2		2	1	5 x		ir				NW-SE
Hunds 6					1			2		3		ring				NW-SE
Hunds 7						1		1		x			cer, an			
Hunds 8													NONE	brok skull		
Hunds 9							1			2		sap		l arm on		NW-SE
Hunds 10					2					1 3 or more	x	ring	cer			NW-SE
Hunds 11					1	2		2		5 or more		ir	cer			NW-SE
Hunds 12													NONE	Br Age?		ENE-WSW
Hunds 13								1		2						NW-SE
Hunds 14						2		2		3		ring				NW-SE
Hunds 15								2		2 x		sm rings	cer			
Hunds 16					1?	2	2	1		3			an			NW-SE
Hunds 17												1 ring				N-S
Hunds 18													cer			N-S
Hunds 19-	1	1		1 sheath						2		ir				
Hunds 21								1		1						
Hunds 22						1	2			3 x						
find												2 br rings				
find												2 br rings				
find												1 br ring				
find												1 ir ring				
find										x						
find										1		1 br ring				
find																

2. Detailed description of the burials in the La Tène B/C cemetery Steinbichel

	weapons				jewellery							objects	body	preserv	sex/age	orientation				
	sword	lance	shield	others	neck	ankle	up arm	arm	finger	fibulae	belt						other			
Steinb 1					1						5		1 over body	cer			N-S			
Steinb 2			1											cer		destroyed	N-S			
Steinb 3													x	glass rec		unclear	?			
Steinb 4															skull pres		adult			
Steinb 5																destroyed	N-S			
Steinb 6																destroyed	N-S			
Steinb 6																destroyed	N-S			
Steinb 7																destroyed	N-S			
Steinb 8													1				child			
Steinb 9													2				?			
Steinb 10	1		1	1 sheath									2 x			cer, ir, nl, ring	N-S			
Steinb 11													2 x	prl, ring		cer	r arm on			
Steinb 12													x	prl		cer, an	r arm und			
Steinb 13																				
Steinb 14	1			sheath												ring	No skull	destroyed	woman	
Steinb 15	1		1 1?	sheath									1	ring		cer			N-S	
Steinb 16	1		1	sheath												nl, ring			N-S	
Steinb 17													1	2 ir		cer	r arm on	destroyed	N-S	
Steinb 18													1	x	prl	cer			N-S	
Steinb 19													1	2	ring	cer	fire traces		NW-SE	
Steinb 20	1		1	1 sheath												ir			S-N	
Steinb 21	1		1	1 sheath												rings			N-S	
Steinb 22																			N-S	
Steinb 23				1 sheath												2 or more	ir		N-S	
Steinb 24																5 x	rings, sap		N-S	
Steinb 25													1	3	5	sap			N-S	
Steinb 26	1			1 sheath												ring board		sword broken	NE-SW	
Steinb 27	1		1	1 sheath									1			ir			N-S	
Steinb 28													3	1		sap br cer			N-S	
Steinb 29																br ring				
Steinb 30																1	ring		destroyed	woman
Steinb 31																1	ring		nt one bur	
Steinb 32													3	4 x		ir, an b				
Steinb 33													1	2		ir, an b				
Steinb 33													2	4 x		pig head				
Steinb 34	1		1	1 sheath												2 or more	ring			

Steinb 35	1	1	1 sheath		1	1	2	ring, pinc		fib mouth			
Steinb 36	1	1	1 sheath		1		2 x	ir, ring, pig	in cer, hund, cis				
Steinb 37				prl	1	1	3 x		cer	arm on			
Steinb 38	1	1	1 sheath		1		1	ring, ir	cer				
Steinb 39				prl	1	2	7 or more	glass rings,	an				
Steinb 40	1	1	1 sheath		2		2	ir, ring, an					
Steinb 41							x						
Steinb 42							x						
Steinb 43									NONE				
burial?							x						
burial?							1 x	ir,	knife				
burial?	1		sheath					ring, ir	knife				
burial?						1		glass prl					
burial?							1						
burial?							2 or more	x					
find							1	ring, ir					
find								glass ring					
find													

Key to the symbols:

An: animal bones

Br: bronze

Cer: ceramic pottery

Cs: scissors

Fib: *fibulae*

Hunds: burial at the Hundsrucken cemetery

Ir: iron

Pinc: tweezers

Sap: sapropelite

Sm: small

Steinb: burial at the Steinbichel cemetery

3. Description of the skeletons and accompanying objects in the *oppidum* of Manching

Sex and age	Special position	Accompanying human bones	Burial situation
Woman 20 y	two arms are lacking, violently removed	- <i>calvarium</i> of late adult man in pelvis - bones of other individuals	- deep under the soil - in this area are found 5 of the 31 clavicles
Infant II			
Woman 40 y		bones of other body	- at least 80 cm underneath
Man 40 y		bones of other body	- in mix of sherds, animal bones, metal finds and other human bones.
Child 7 y		bones of an other child body	
Child 6 y	in east gate		only 50 cm or less under the soil.
Child 5 y			
Woman adult			
Child 8-12 y			
Man 30-35 y	half raised, legs open.	It looks as if the person died in a house that became a burial.	

(based on Lange 1983: 7-11)

Appendix 4: Plans of the excavation area

Plan 1: The central area

Plan 2: The north area

Plan 3: The Altenfeld area

Plan 4: The south area

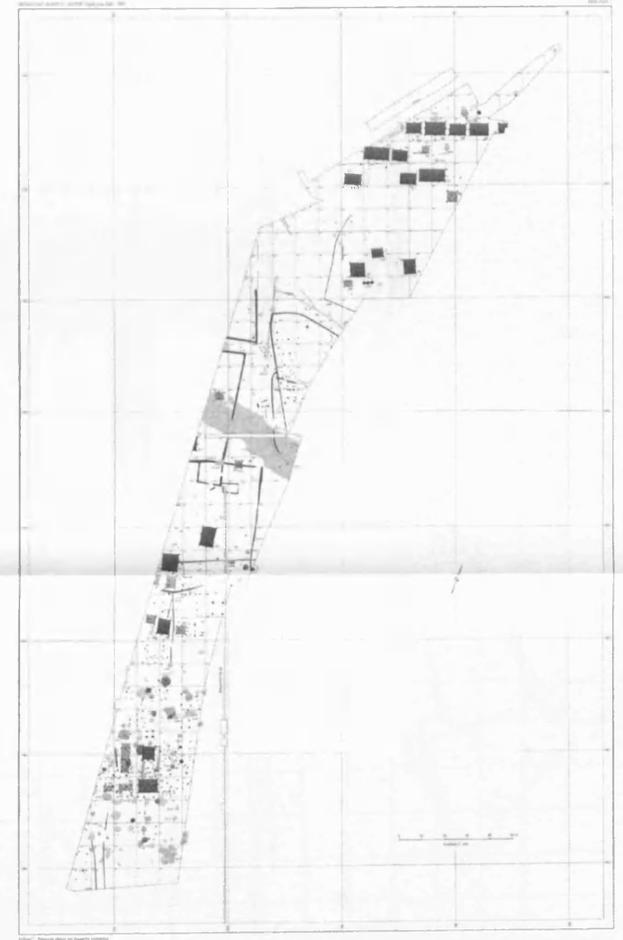




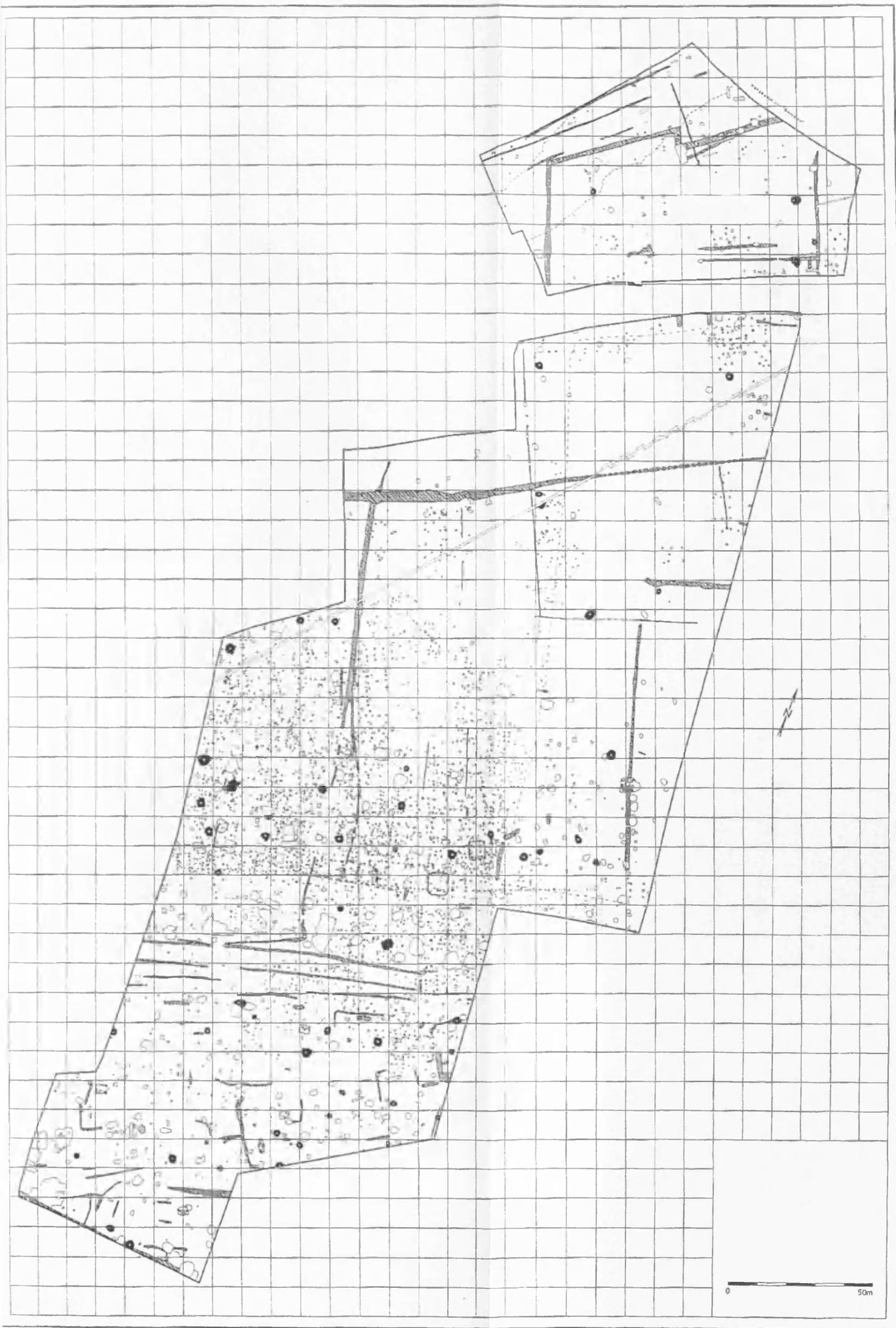
Oldest and older phase

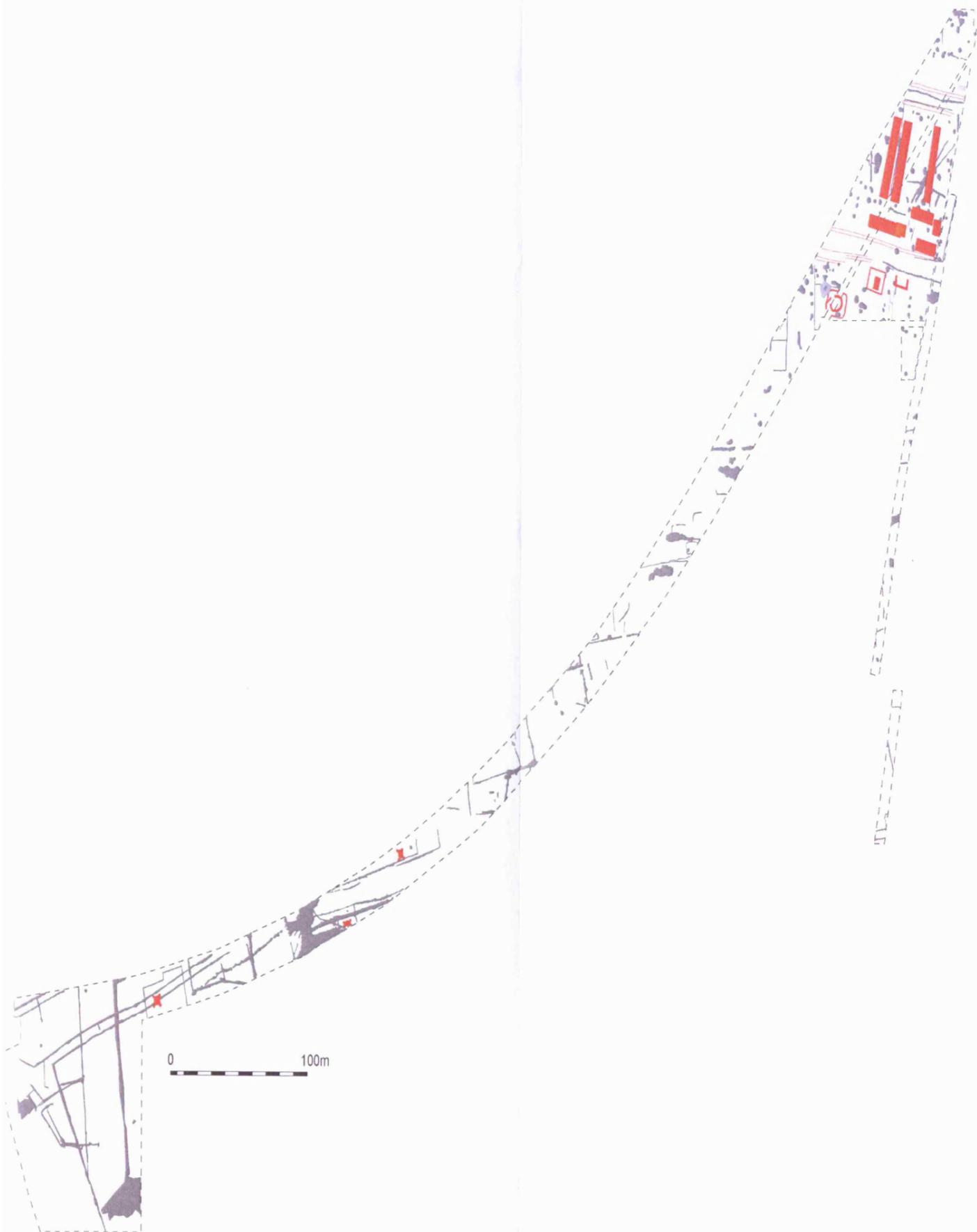


Middle phase



Younger phase





Chapter 5: The *oppidum* of Titelberg, Luxembourg

1. Introduction to the archaeological site

The *oppidum* is named after the mount Titelberg or Tettelberg. It is located in the village of Pétange in the south east of the Grand Duchy of Luxembourg near the borders with Belgium and France. This territorial situation makes coherent archaeological research difficult because the Titelberg region is spread over three countries, and the territory of the Treveri tribe is spread over four countries and six archaeological services (Metzler 2002: 175). The *oppidum* is not connected to any ancient place name mentioned by classical authors. Nonetheless it is generally regarded as the central *oppidum* of the Treveri tribe (Fichtl 2000: 283). The *oppidum* is situated on a promontory, about 130 meters above the Chiers valley. In the east it is connected to the plateau of Differdange by a narrow passage. About 2,700 metres of fortifications define an *oppidum* area of 43 ha.



Figure 1: Aerial picture of Titelberg taken from the north side (Metzler 1995: fig. 10).

The archaeological structures are considerably damaged by intensive agricultural activities on the plateau for centuries. Various structures have been wiped out by later Roman buildings. Many have been filled in with older material in Roman times. The edge of the plateau is ruined by a wide band of iron mines and slag heaps (Figure 2: grey screen). This is a result of

intensive iron exploitation in the region, especially since the 19th century. Vast parts of the northern and southern slopes have collapsed. It is therefore difficult to distinguish the different stratigraphical layers and to understand the former structure of the immediate vicinity of the *oppidum* (Metzler 1995: 17, 91). We should keep this in mind in order to understand the full picture of La Tène Titelberg.

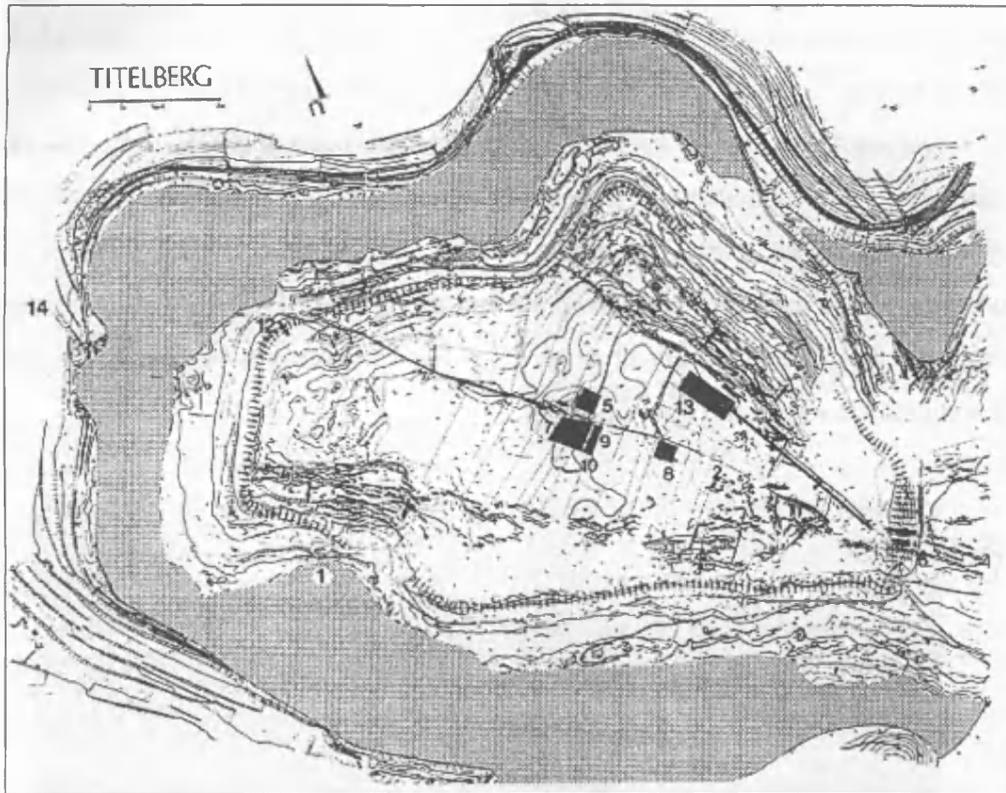


Figure 2: Plan of Titelberg. The black screens are excavation areas; the lighter screen is the area disturbed by iron mining activities (Metzler 1995: fig 8, p. 18).

Long before excavations started, Titelberg was named in stories and documents. Myths were told about an alleged Roman military camp. 17th and 18th century manuscripts mention impressive walls and gates, and curative water sources (Metzler 1995: 19). This is valuable information because the actual destruction of geological layers impedes our knowledge about the former groundwater level (Metzler 1995: 19). 19th Century documents describe a large number of ancient burials which were uncovered during mining activities. From these descriptions it may well be assumed that there were late La Tène or early Roman burials in the north and the west of the *oppidum*, and a late Roman cemetery at the northern slope. In addition, early 20th century documents mention imperial baths at the south-western slope (Figure 2: 1; Metzler 1995: 19-20). For many centuries large quantities of isolated surface

finds, especially coins, have come to light since the central area of the plateau was turned into extensively ploughed fields (Metzler 1995: 91). Most of these finds are now part of private collections.

The first scientific excavation inside the *oppidum* took place in 1907 and revealed a Gallo-Roman 'strip-house' (Figure 2: 2; Metzler 1995: 19). Kremer found a Gallo-Roman glass workshop shortly after 1928 (Figure 2: 3; Metzler 1995: 19). Meyer discovered a Gallo-Roman wall and cellar in 1959 (Figure 2: 5; Metzler 1995: 19). In the woods to the west of the *oppidum* Erpelding unearthed 45 cremation graves from the Middle Augustan period up to AD 50 (Figure 2: 4; Metzler 1995: 19). Large-scale excavations started in 1965 when Thill examined the main ramparts (Figure 2: 6). He also led the 1968-1989 excavations of a large area of approximately 3,000 m² that contained structures from Late La Tène up to the 3rd century AD (Figure 2: 7; Metzler 1995: 19-20). From 1972 to 1977 the adjacent area was excavated by the University of Missouri, USA, under the lead of Rowlett (Metzler 1995: 19-20) (Figure 2: 9). The area to the south was excavated by amateur archaeologists from 1979 onwards (Figure 2: 10; Metzler 1995: 19-20). Other sections of the main ramparts were examined by Krier in 1980 and by Metzler in 1981-1982 (Figure 2: 11; Metzler 1995: 19-20). Metzler also investigated a section of the peripheral wall in 1985 (Figure 2: 12; Metzler 1995: 19-20). In 1986-1989 the ditch system of the late La Tène sanctuary was excavated (Figure 2: 13; Metzler 1995: 19-20). The 'Lamadelaide' cemetery at the *oppidum's* west gate was excavated by Metzler from 1991 to 1993 (Figure 2: 14; Metzler 1995: 19-23). From 1995 onwards the sanctuary itself was unearthed (Metzler 2000: 436; Metzler 2003). The excavations are complemented by geophysical prospection of the entire area in 1994 and 1997 by the Institute für Geophysik der Christian-Albrecht Universität Kiel.

There are not many detailed publications. Apart from the sectional publications in limited articles, mentioned in footnotes 4-13, there is one volume on Titelberg by Metzler (1995). Later on Metzler wrote various articles, mainly about the sanctuary. The publication of the sanctuary is forthcoming (Metzler 2006: personal communication). The excavations by the Missouri University are published in various articles in the 1970's-1980's (Rowlett et al. 1982; Thomas et al. 1975; 1976). Excavation plans are only available from the large central area south of the road and its adjacent area (Figure 2: 7 and 9), and from the sanctuary (Figure 28-33).

2. The *oppidum* in its regional context: why this particular location?

The *oppidum* was built on an oblong promontory at about 130 meters above the Chiers valley (Figure 5). Only in the south east it is connected to the plateau of Differdange by a narrow passage. There is a stream on both sides of the promontory. The river Chiers does not run at its foot, rather further away (Figure 5). This way the *oppidum* has a wide view over the valley.

Natural resources and communication routes

Water is easily accessible to the Titelberg population. The river Chiers and its offshoot streams encompass the *oppidum* plateau (Figure 3). Metzler (1995: 11) assumes that there were also lakes nearby or that the river was dammed up at some places, because large quantities of waterbirds bones are found at the *oppidum*. A wide pit just outside the northern wall (Figure 3: 12) may have been used as an additional water resource (Metzler 1995: 32). Furthermore, two springs well up near the *oppidum* walls (Figure 3). The springs were quite significant. The spring near the north eastern part of the ramparts has disappeared due to subsidence (Metzler 1995: suppl. 1, 7-9). The spring near the southern ramparts was accessible from the *oppidum* by a gap in the ramparts. This spring was adorned with a Gallo-Roman temple of Mercury and later with a Roman bath house (Metzler 1995: 35; suppl. 1, 25). Furthermore, the curative powers of these springs were acknowledged as late as the 17th-18th century AD (Metzler 1995: 19). In conclusion, there was sufficient water supply for settlement survival at Titelberg. Besides their role in subsistence, the water sources were also valued for their curative or sacred power, even many centuries after the *oppidum* period.

The variety of geological formations made the region favourable for human activity. South Luxembourg lies at the fringe of the so-called Paris basin. It is characterized by the *cuestas*⁴² or *Muschelkalk*⁴³, Luxembourg sandstone and ferriferous layers of Aalenian, often covered by white limestone layers of Bajocian. The marl layers are hard to work but they are very fertile, and thus suitable for agriculture. The Holocene layers in the valleys were used as pasture land

⁴² *Cuesta* is a geological term, used to describe the ridges formed by gently tilted rock layers. Every *cuesta* has a steep slope, where the rock layers are exposed on their edges. (*Cuesta*. 2007. <http://en.wikipedia.org/wiki/cuesta> [accessed 10 July 2007])

⁴³ *Muschelkalk* is the geological term for the middle member of the German Triassic. It consists of a series of calcareous and dolomitic beds (*Muschelkalk*. 2007. <http://de.wikipedia.org/wiki/Muschelkalk> [accessed 10 July 2007])

for centuries (Metzler 1995: 11). The Titelberg itself is a flat topped hill of Jurassic limestone and clay (Rowlett et al. 1982: 301). The clay of the neighbouring Differdange plateau was also used for the pottery and for weather proofing the walls of the timbered houses in the *oppidum*. At only 300 metres east from the *oppidum* there was a quarry of limestone which was used for paving the houses and for the construction of the ramparts (Metzler 1995: 12-13, 43, 44, 46, 65, 72). In conclusion this is a region with fertile agricultural and pasture land. There is plenty of clay and limestone in the near vicinity that can be used as material for building construction and artefact production. It seems to be a good location for settlement foundation.



Figure 3: Plan of the structures near the *oppidum*. 1: ramparts; 2: east gate; 3: west gate; 4: Gallo-Roman route; 5: enclosing ditch of the sacred area; 6: sanctuary; 7: Augustan enclosure; 8: Lamadelaine cemetery; 9: La Tène (?) and Gallo-Roman cemetery; 10: destroyed burials (?); 11: protohistoric enclosure; 12: quarry used as water reservoir?; yellow squares: Gallo-Roman sites; dotted lines: limits of mining activities in 19th and 20th century. (Metzler 1999: fig.1, p.11)

The plateau of Titelberg itself as well as the neighbouring plateau of Differdange has produced large quantities of iron. There were numerous iron ores (Figure 4). These ores are said to be the economic basis of the region ever since the Iron Age. The working of iron is indeed confirmed by various tools and iron slag in the *oppidum* (Metzler 1995: 12-13). As Metzler (1995: 12-13) states it is very likely that the presence iron ores was the decisive factor for settlement location.

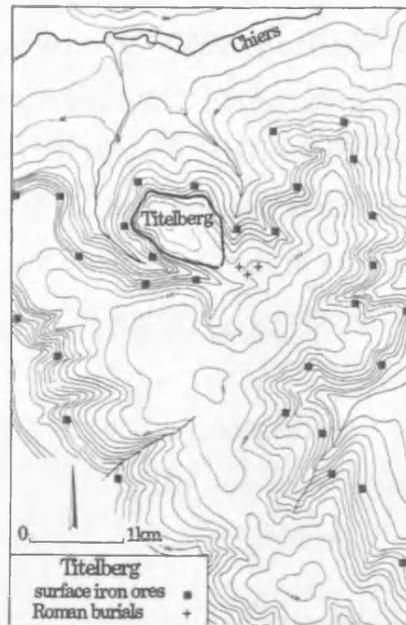


Figure 4: Distribution of surface iron ores in the vicinity of Titelberg (Collis 1984a: 173, fig. 10.7).

Titelberg is said to be located along a prehistoric south-north communication axis which runs through the valleys of the Rhône, Saône and Mosel. Near Titelberg the route would fork into a west route to the Champagne and Aisne valleys and an east route to the Rhine valley (Metzler 1995: 565). The evidence for such communication route is the fact that the *oppidum* is the northernmost point reached by imports. However, Titelberg is far away from the Mosel. The *oppidum* is not located near that route or near any major river (Chapter 3: Figure 1). Land roads are presumed to pass by Titelberg: a pre-Roman road that ran through the centre of the *oppidum* as its main street (Figure 5: red line), and a Gallo-Roman south-north road to Arlon in the north (Figure 5: green line; Metzler 1999: 17). No evidence or profound argument for the location of these roads is given. Metzler (1999: 11-13) concludes that trade routes were an economic asset of Titelberg, but this is not convincingly evidenced.

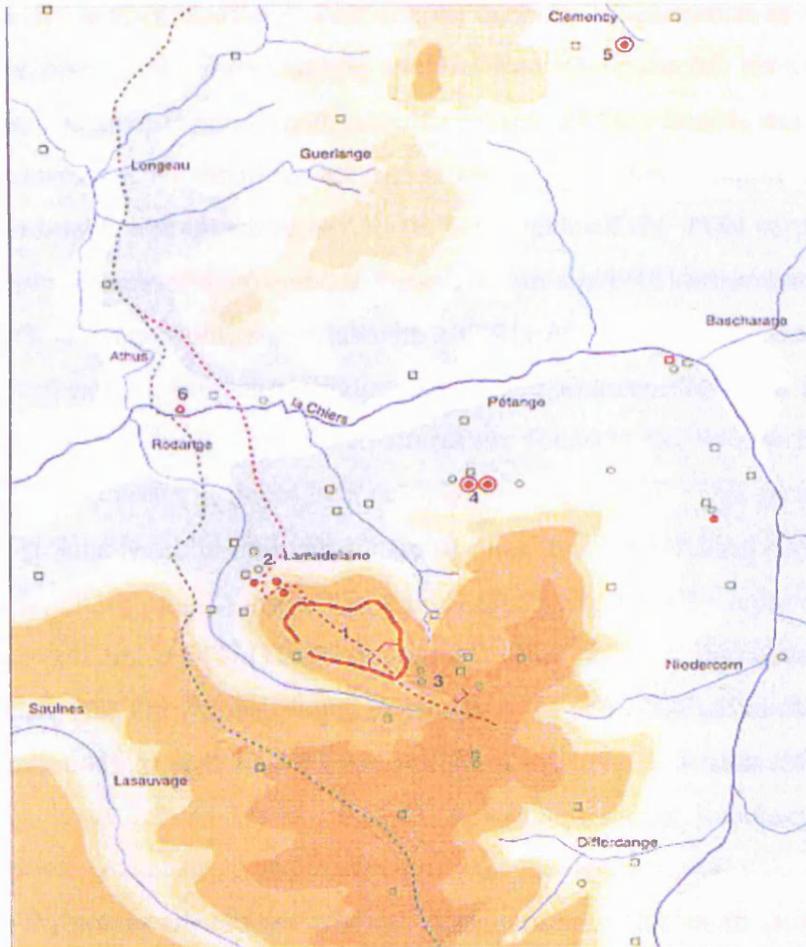


Figure 5: Structures in the region of Titelberg. Red dotted line: pre-Roman communication route; green dotted line: Gallo-Roman route; red circle: pre-Roman cemetery; double red circle: burial mound; green circle: Gallo-Roman cemetery; green square: Gallo-Roman settlement. 1. Titelberg *oppidum*; 2. Lamadelaine cemetery; 3. eastern cemetery; 4. burial mound of Pétange; 5. burial mound of Clemency; 6. enigmatic mound of Athus (Metzler 1999: fig 3, p. 13).

Other settlements and structures

The *oppidum* was surrounded by cemeteries. Outside the west gate, along the pre-Roman road lays the Lamadelaine cemetery (Figure 3:8; Figure 5: 2). It consists of at least 85 cremation graves of adults and children. The burials date from La Tène D1 to Gallo-Roman 2 period, or from 120 BC to 20 AD (Metzler 1999: 280). Near the Lamadelaine cemetery some early Roman cremation graves⁴⁴ were situated on both sides of the road (Figure 2: 10). It is likely that the cemetery and the cremation graves were parts of a much larger concentration of burials along that road near the west gate (Metzler 1995: 15). Outside the east gate there was

⁴⁴ I am not sure whether these cremation graves mentioned by Metzler 1999:15 are the same as the late Celtic or early Roman burials mentioned in Metzler 1995:19-20. It is not possible to deduce it from these publications.

also a cemetery on both sides of the road (Figure 3: 9; Figure 5: 3). It contained at least 45 Gallo-Roman burials (Metzler 1995: 532). There are indications for the existence of earlier burials in this area (Metzler 1999: 16). On the northern slopes of the *oppidum* there was probably a late Roman cemetery, according to the accounts of inhumation graves and sarcophagi (Metzler 1995: 19-20). Other ancient burials to the north and west of the *oppidum* plateau were found in the 19th and early 20th century. They were presumably Late La Tène or early Roman burials (Metzler 1995: 19-20). In conclusion, the *oppidum* of Titelberg was surrounded by a series of cemeteries and separate burials that range from La Tène D to the Gallo-Roman period.

There were many other La Tène and Gallo-Roman cemeteries in the vicinity (Figure 5: green circle). They are often adjacent to a Gallo-Roman settlement (Figure 5). These structures are revealed by archaeological survey only (Metzler 1999: 17). There are also cemeteries at a greater distance from the *oppidum*, for instance the large cemetery in Cutry, France, at 10 km from Titelberg (Metzler et al. 1991: 122; 1995: 534). Though, they might not have a relevant relation to the *oppidum*.

Besides cemeteries, there are some distinctive burial tombs in the region of Titelberg. The burial tomb of Pétange, at three kilometres from Titelberg, contained richly decorated swords (Figure 5: 4; Metzler 1999: 16). The late La Tène tomb of Clemency is located at five kilometres from Titelberg (Figure 5: 5). In this tomb a 40-50 year old man was cremated and buried with a large quantity of tableware, food offerings and imports (Figure 27; Metzler et al. 1991: 105). At seventeen kilometres from the Titelberg there were five cremation tombs at Goebange-Nospelt. Tomb A and B date to 50-40 BC (La Tène D2), the other three tombs belong to the Gallo-Roman period. Four men and one woman were buried here. The tombs of Clémency and Goebange-Nospelt are the most elaborate and rich burials in the Treveri region (Metzler 2002: 182). They are assumed to be the burials of aristocrats and connected with the *oppidum* of Titelberg (Metzler 1999: 13). Both assumptions are ill-founded (discussion in section 8). The burials are special and may have belonged to individuals with special status. But the existence of aristocrats is not clearly demonstrated, let alone that they would dominate the *oppidum*. The tombs are all located near a Gallo-Roman settlement (Figure 5). Yet, this is not surprising since all the burials are.

Other monuments are also found in the vicinity of Titelberg. There is a square or rectangular enclosure to the east of the *oppidum* along the pre-Roman road at 300 m distance from the main *oppidum* ramparts (Figure 5; Figure 3: 11). This structure is referred to as ‘a protohistoric enclosure’. Its function and date is not known at present (Metzler 1999: 16). According to the published plans (Figure 3 and 5) it appears to be quite large. North east of Titelberg, at the other side of the Chiers, an enigmatic late La Tène monument was found; a 6 meters high mound 50 meters in diameter with a 2.7 x 2.7 metres square structure inside a rectangular palisade of 5 x 4.5 metres (Figure 5: 6). The entire mound was enclosed by a ditch (Metzler 1999: 17). No objects or other structures are found in its vicinity. The function of this mound is still unknown. It might be a cult place or a cenotaph. This mound was located on the strategic point where the Gallo-Roman route crossed the river Chiers (Figure 5: 6).

In the Treveri region 24 late La Tène hill top settlements are found (Figure 6). Their size ranges from less than 0.1 ha to 70 ha (Metzler 1995: 578, 580). Five of these hilltop settlements are defined as *oppida*. Titelberg and Martberg are the largest ones and they are regarded as the main Treveri *oppida*. Kastell is accepted in the list due to its size and favourable location. Otzenhausen and Wallendorf are considered *oppida* only because of their size, but they might rather be ‘major hillfort’ in the sense of British Archaeology (Metzler 1995: 586). Not much is known about these sites. Only a few excavations have been undertaken inside the ramparts. It is not clear whether these sites were proper settlements or mere refuges in case of emergency (Metzler 1995: 581,583). It is a fact that there were many hilltop settlements in the region in this period. Some were the continuation of older settlements; some emerged in late La Tène (Metzler 1995: 578). Apparently it is the size that determines whether they are valued as *oppidum* or as just a mere hilltop settlement; the largest ones are *oppida*. But the difference in form and function is not really clear.

At this stage it is difficult to evaluate the relationship between Titelberg and the other enclosed settlements. Titelberg is not connected to the network of rivers along which the other *oppida* are located. Titelberg is considered the capital of the Treveri although it is much smaller than Martberg and does not seem to be centrally located in the Treveri region. Martberg is 70 ha in area and seems therefore more impressive and significant than Titelberg. The position of Titelberg to the other settlements is impossible to deduce. The picture (Figure 6) is incomplete because it is a result of the archaeological activity and it does not mirror settlement concentration at the time (Metzler 1995: 578).

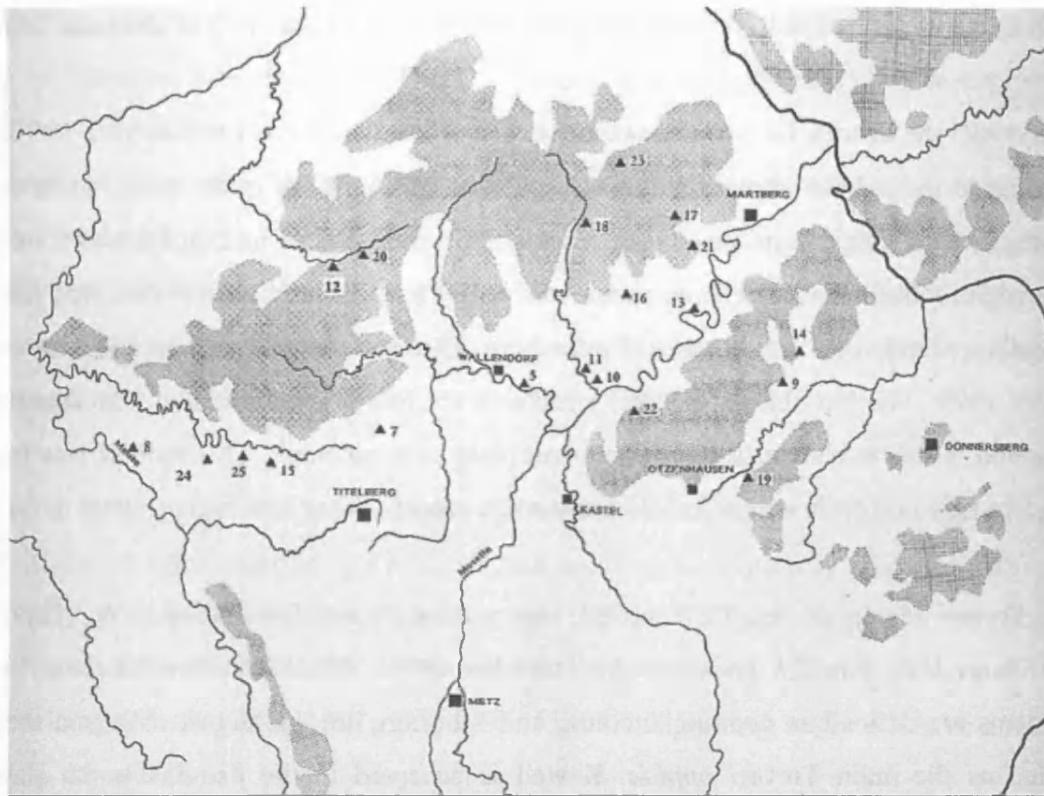


Figure 6: Distribution of *oppida* and hill top settlements in the Treveri region. 1: Martberg; 2: Titelberg; 3: Wallendorf; 4: Kastel; 5: Bollendorf; 6: Otzenhausen; 7: Marienthal; 8: Stenay; 9: Kempfeld; 10: Ehrang; 11: Kordel; 12: Tavigny-Alhoumont; 13: Erden; 14: Bundenbach; 15: Buzenol; 16: Landscheid; 17: Steineberg; 18: Gerolstein; 19: Weiersbach; 20: Brisy; 21: Hontheim; 22: Fell; 23: Kerpen; 24: Bellefontaine. Square: *oppidum*. Triangle: hill top settlement (Metzler 1995: 576, fig. 284).

Less is known about other settlement types. Open settlements are very difficult to discover and none of these settlements has been entirely excavated at present (Metzler 1995: 573). Various Gallo-Roman settlements were detected by archaeological survey (Figure 3: green squares; Metzler 1999: 17). They are relatively evenly distributed over the area, though slightly denser in the vicinity of the *oppidum* (Figure 3). It is not clear on which basis they are called Gallo-Roman. They might as well be pre-Roman structures, or rather continuations of pre-Roman predecessors, as happened in Goebange-Nospelt (Metzler et al. 1991: 171). In conclusion, there was a dispersed settlement pattern with a concentration in the vicinity of the *oppidum*.

Conclusion

The *oppidum* is located on a promontory in a region which is advantageous for settlement. There is enough water supply, fertile agricultural land, and available stone and clay in the vicinity. The foundation of an *oppidum* in this region is therefore not surprising. The decisive factor for the choice of location may well have been presence of iron ore at and around the promontory. In that case the reason for *oppidum* foundation would be the exploitation of iron. The *oppidum*'s location was not outstanding for long-distance trade. Titelberg was surrounded by numerous burials and cemeteries during the whole *oppidum* period. They probably belonged to the people that stayed at the *oppidum* and maybe also in the dispersed settlement structures in its vicinity. Two other monuments were found along the road on both sides of the *oppidum*. The relation of the more distant burial mounds to the *oppidum* is not clear. It is not known how Titelberg was related to other settlements.

3. Settlement history: when did people walk the ground of Titelberg?

Neolithic settlement?

The Missouri University excavated a building with fifteen different floor levels, of which the earliest floors are thought to belong to a Neolithic building (Figure 14; Table 3; Thomas et al. 1976: 255-256). Thomas et al. (1976: 256) conclude that there was a Neolithic settlement at Titelberg. However, it is not very likely that a Neolithic building is preserved, and that it would be right underneath La Tène floors of the same building. None of the other publications on Titelberg mention Neolithic finds. I therefore prefer to dismiss the question for the time being by lack of convincing evidence.

Late Hallstatt –La Tène A: burial mounds and settlement?

The first two phases of the main ramparts date to the Late Hallstatt – La Tène A period. At that time the ramparts did not enclose the entire promontory. They simply cut off the passage of the promontory. This way an area of 50 ha was closed off. In Etalle, at 24 km distance from Titelberg, there was a similar large wall sealing off a promontory (Metzler 1995: 28). The ramparts were 6 metres wide. The first ramparts were Ehrang type constructions which is an aesthetic and meticulous piece of work (Figure 8; Appendix 1). The ramparts were also

clearly defensive as they are complemented by a wide ditch in the front. These ramparts burned down and after some time the ruins were replaced by a palisade. Unfortunately the rampart phases are not clearly dated. Titelberg was a large area, closed off by monumental ramparts that require some coordination and care. The later palisade points to a continuation of the site's significance.

In this area, fragments of *fibulae*, bracelets, necklaces, belt hooks and beads are found. Considering the fact that all the finds were ornaments, Metzler (1995: 24-28) favours the interpretation of Titelberg as burial place in the Late Hallstatt –La Tène A period. This interpretation seems highly valuable in view of the later evolution of Titelberg. The east area, where most of these finds were found, became the sacred area of the *oppidum* (Chapter 9). The fact that it was a former burial place may well have endowed the east area with sanctity. The finds date to the period from Hallstatt D2/D3 to La Tène B.

Transition to the *oppidum* period

The exact time of the *oppidum* foundation is not known at present. Much depends on one's interpretation of the term *oppidum* period. If the construction of the first main rampart that cut off the promontory is accepted as the start of the *oppidum* phase, the *oppidum* would have started as early as Late Hallstatt – La Tène A. But this is very unusual in the current chronological definition of *oppida* (Chapter 1), although Závist also had significant monuments in this period (Chapter 6). If, on the contrary, the construction of the first enclosing ramparts is seen as the start of the *oppidum*, it would have started at the end of La Tène D1. This is in accordance with the common *oppidum* chronology. Furthermore La Tène D1 is definitely a significant period. This is when the peripheral ramparts, main street and sacred ditch have been constructed (Section 5).

But what happened in between Late Hallstatt – La Tène A and La Tène D1? The main ramparts had been rebuilt a third time. In this phase they were a mixture between the Ehrang and the *muris gallicus* type (Section 5). The latter is considered to be typical type of *oppidum* ramparts. Furthermore the finds date up to La Tène B. The site would have been abandoned in La Tène C only.

It is not clear when settlement emerged at Titelberg. It may have expanded from a small core or covered a large area from the start (Metzler 1995: 95). The settlement may well be slightly anterior to the construction of the peripheral ramparts in La Tène D1, and thus to the proper *oppidum* period. Coins and ceramic finds demonstrate that the settlement area grew rather fast and that it reached its peak in La Tène D2 (Metzler 1995: 91, 95, 565).

Conclusion

In the Late Hallstatt –La Tène A period Titelberg was closed off by monumental ramparts. Titelberg was presumably a burial place at that time. However, the construction of the ramparts required a substantial amount of coordination and meticulous work by a considerable workforce. It must have been done by people living in the near vicinity that had a bond with the site. The site's significance continued and evolved. The ramparts were restored twice. A settlement emerged before or around the time the ramparts were restored again at the end of La Tène D1. This time, enormous construction works were undertaken to enclose the entire area with monumental ramparts, to lay-out the main road and to seal off the former burial area by a ditch. This area became the sacred zone of the *oppidum*. The settlement area grew and reached its peak in La Tène D2. The settlement history of Titelberg clearly reveals the ritual significance of the place. It also shows that *oppida* do not emerge out of the blue. They are a step in a whole settlement evolution. This calls for reintegration of a long-term chronological vision in *oppidum* research.

4. The ramparts and gates: defence or symbol?

The ramparts

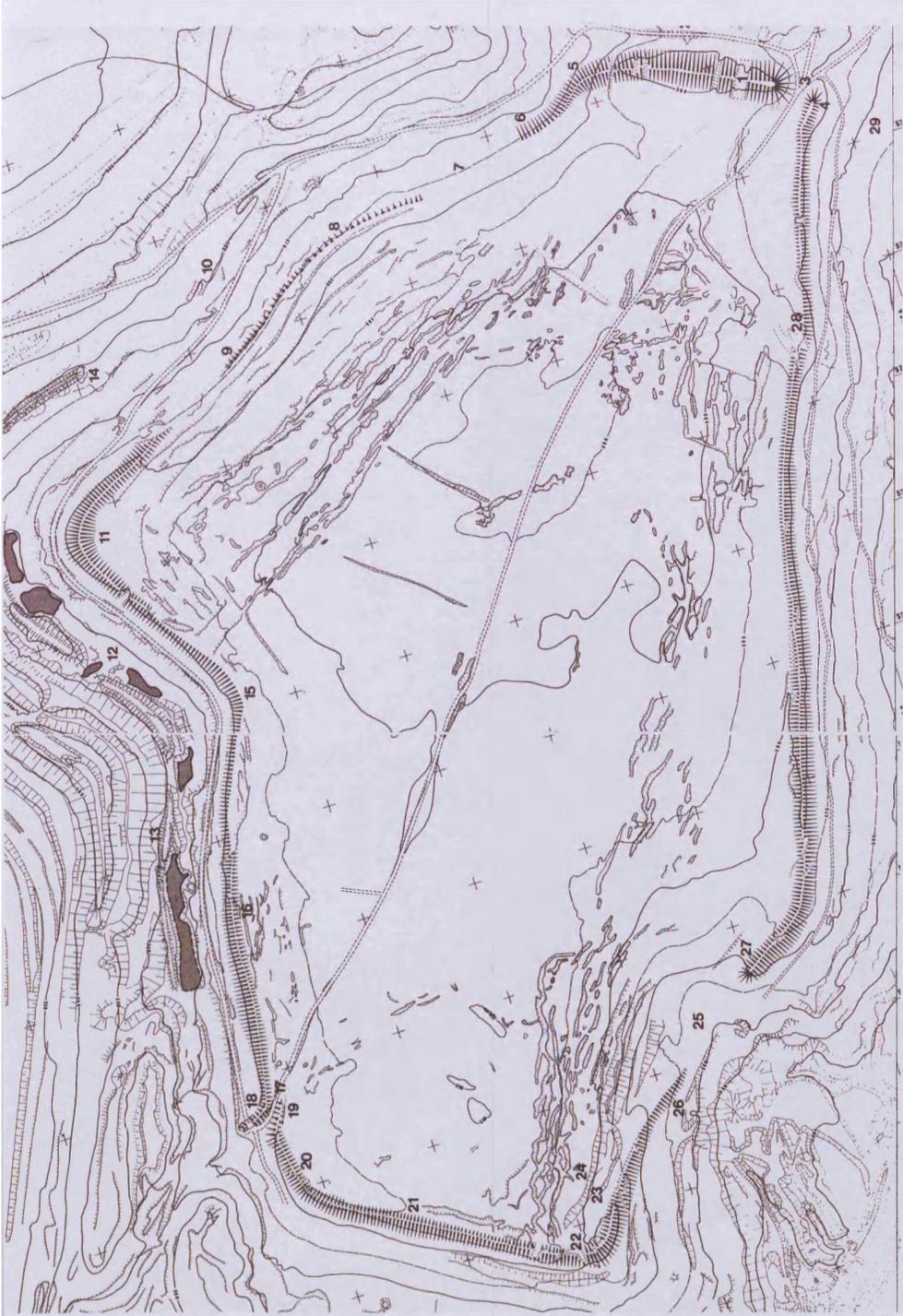
The ramparts are more than 2700 metres long (Metzler 1999: 11). They are shaped according to the plateau's topography (Metzler 1995: 30). There are two components. The main rampart on the east side were built first (Figure 7: 2). This rampart cuts off the only easy passage to the Titelberg promontory. The peripheral ramparts were built afterwards (Figure 7: 4-9, 11, 15-16, 18-22 and 27-28). They link up with the main rampart and follow the natural edges of the plateau. This way the *oppidum* was entirely enclosed. Some structures in the front might

have been parts of a second peripheral rampart or at least of some reinforcements in the north and south (Figure 7: 13-14, 29; Metzler 1995: 32, 35). The *oppidum* had only two gates. The east gate gives way to the plateau of Differdange (Figure 7: 3) and the west gate leads to the valley (Figure 7: 17). The *oppidum's* Roman main street connects the two gates. The peripheral ramparts are excavated in the north near the west gate (Figure 7: 19). The main rampart is examined near the east gate (Figure 7: 1).

Figure 7: Topographic plan of Titelberg and its rampart system (Metzler 1995:18, fig. 8). = next pages

There is clear evidence for five distinct construction phases of the main rampart (Figure 8). The first rampart was built on a limestone layer after burning down the wood. It was a 6 metres wide rampart of the *Ehrang* type (Appendix 1); it had a wooden frame of horizontal beams without nails and a stone revetment in the front and the back. There was a 5 metres wide and 2.8 deep ditch in front of the rampart. The rampart was destroyed by fire and left in ruins for some time (Figure 8: I; Metzler 1995: 36-40). In a second phase the ditch was partly filled in and a palisade was constructed on the ruins of the first rampart. This construction burned down as well. Then the place was left undefended for some decades (Figure 8: II; Metzler 1995: 40-42). Little is known about phase three. The ditch was filled in completely. The rampart was a mixture between the *Ehrang* and the *muris gallicis* type (Appendix 1; Fichtl 2000: 50). No nails were used and the back was a mild slope. Again the ramparts ended in a fire (Figure 8: III; Metzler 1995: 44).

In the fourth phase it was a monumental *muris gallicis* rampart. It was 6-6.5 metres high and 21-22 metres wide. The wooden frames were at least 10 metres long, which is longer than most *muri gallici*. This rampart collapsed, probably due to the decay of the wood (Figure 8: IV; Fichtl 2000: 52, Metzler 1995: 47, 53). Shortly afterwards the rampart was rebuilt. It was a variation on the *Fécamp* type (Figure 8: V; Fichtl 2000: 52). The construction was unusual in the north east of Gaul (Metzler 1995: 54). Inside there were small stone walls at right angles to the front facade. These stone walls might have been used instead of wooden beams (Fichtl 2000: 52). They may have been the remains of building or they may have been constructed deliberately to withstand the use of the ram by enemies (Metzler 1995: 57). Another remarkable feature was the enormous glacis in front of the ramparts.



Chapter5: Figure 7

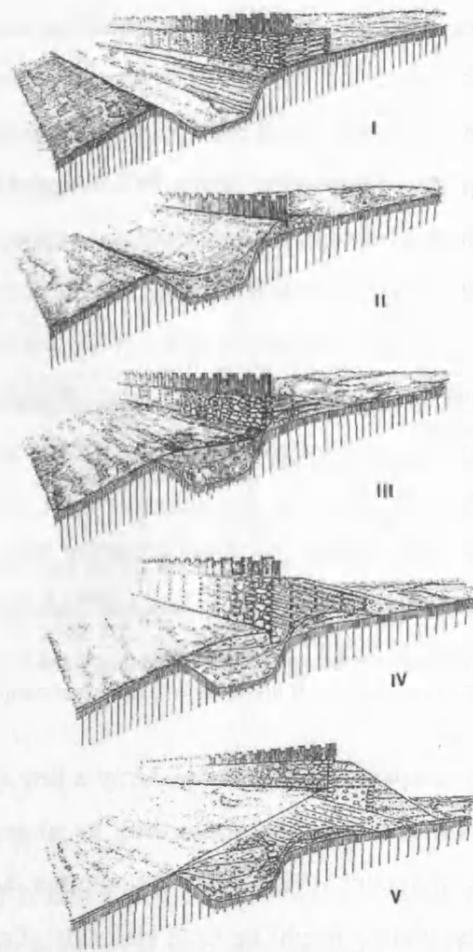


Figure 8: The construction phases of the main rampart (Metzler 1995: p. 59, fig. 38).

The peripheral ramparts had only two construction phases. In the first phase it was a *murus gallicus* (Appendix 1), just like the fourth phase of the main rampart. In fact these two ramparts have much in common. Therefore it is highly likely that in this phase they were joined into one rampart complex (Metzler 1995: 70). The peripheral ramparts were 3.5 metres high and had a two meter wide 'Wehrgang'. The ramparts did not end by fire, but they probably collapsed due to the decay of the wood (Metzler 1995: 70). This is again similar to the main ramparts' fourth phase. In the second phase the peripheral ramparts were constructed on the back ramp of the former ramparts. The wooden frames were nailed as happens in *muri gallici*, but there were also small inner walls just like in phase five of the main rampart. Because of this and because of other similarities Metzler (1995: 79) argues that also in this phase there was a very close relationship between the main and the peripheral ramparts.

In conclusion, Titelberg was first closed off by the main rampart of the *Ehrang* type. After replacement by a palisade construction, a rampart was built of a type between the *Ehrang* and *muris gallicus* type. At the time of the fourth reconstruction phase large works were undertaken. The ramparts were extended and built around the entire promontory. They were a *muris gallicus* type of ramparts. When these ramparts collapsed they were soon replaced by another demanding type of ramparts. It is clear that great store was set by the meticulous construction and reconstruction of the massive ramparts.

Main rampart		Peripheral ramparts	
<i>phase</i>	<i>chronology</i>	<i>phase</i>	<i>Chronology</i>
I	Early La Tène or transition from Late		
II	Hallstatt to Early La Tène		
III	Late La Tène?		
IV	Late La Tène?	I	End La Tène D1 or transition from La Tène D1 to La Tène D2
V	Late La Tène	II	La Tène D2b

Table 1: Chronology of the main rampart and the peripheral ramparts, according to Metzler's (1995) description. The peripheral rampart's phases I and II are related to the main ramparts' phases IV and V.

The chronology of the main rampart is problematic. Only a few artefacts are found and there is hardly any charcoal left for C-14 dating. According to some pottery fragments the first phase dates to La Tène A (Metzler 1995: 60). On another account Metzler (1995: 28) mentions that the two earliest phases might be Late Hallstatt –La Tène A. This would imply that Titelberg was closed off already in these early days (Section 3). All the other pottery fragments probably belonged to the Late La Tène period. Unfortunately no other chronological subdivisions can be determined (Metzler 1995: 61). In the fifth and final phase an Italian Dressel 1 *amphora* was found as well as an early-Roman jar. The latter might indicate that this period was early Roman. However, it is also possible that the *amphorae* belonged to one of the Roman burials that were laid out on the ruins of the rampart. Therefore the fifth phase is considered to date in the Late La Tène period (Metzler 1995: 61). The chronology of the peripheral ramparts is better known because of the large amount of pottery fragments. The first phase is probably dated to the end of La Tène D1 – beginning of La Tène D2. The second phase dates to La Tène D2b. The pottery in this phase resembles the first burials of Goebblange-Nospelt. It is however hard to say if the second ramparts were built before or after the Gallic Wars (Metzler 1995: 82-83), or whether they were pre-Roman or Roman. The statements on the chronology of both peripheral and main ramparts are

summarised in Table 1. Since the two ramparts were a unit in the last two phases (Metzler 1995: 70, 79), these phases are probably contemporary.

Metzler (1995: 79) concludes that during the first three phases of the main rampart the *oppidum* was not entirely enclosed. The main rampart was only a barrier and defended the promontory. There are however two other options; there might have been peripheral ramparts that have not been found yet (Metzler 1995: 79), or the unidentified structures in front of the northern peripheral ramparts are the remains of earlier peripheral ramparts (Figure 5: 13-14). These structures are five metres high wall-like ridges at the edge of artificial pits to the north and ridges in front of the south of the known peripheral ramparts (Figure 5: 28) (Metzler 1995: 32, 35). Unfortunately their remains are severely damaged and their chronology is problematic (Metzler 1995: 32). On the other hand, these structures may as well be additional defences to the known peripheral ramparts, rightly positioned to defend the gates. Similar front ramparts are attested in Metz and Mont Beuvray (Metzler 1995: 32).

The gates

The east gate (Figure 7: 3) is composed of the southern head of the main rampart and the eastern end of the southern peripheral ramparts (Figure 7: 4). The east gate was not an elaborate construction. It was basically a gap in between two ramparts, although the rampart ends are high and impressive. Possible gate towers or other constructions are not known, because the gate has not been examined yet (Metzler 1995: 32). The location of the east gate is also unusual. It was situated at the very edge of the passage, and not in its centre. In the first three phases of the main ramparts the peripheral ramparts were not yet constructed. As a result the east gate would have been nothing more than an open space between the main wall and the edge of the promontory. The entrance was 15 - 20 metres wide.

But there might have been another gate in the main rampart. Excavations revealed that in the first phase the ditch was interrupted near subsection A (Figure 7: 1). Metzler (1995: 39) concludes that this probably indicates the edge of a gateway. In the second phase this gateway may have been retained (Metzler 1995: 42). In the third phase there was a front and back revetment at the same location (Metzler 1995: 44). Revetments are also found near the west gate. It is therefore very likely that there was a gate in the main ramparts near subsection A.

For the fourth and fifth phase Metzler (1995) does not mention section A again. Therefore I assume that the gate near section A no longer existed. In conclusion, in the first three phases of the main ramparts there was probably a gate at a more central location.

The west gate of Titelberg was presumably a zigzag gate type gate (Appendix 1). It was formed by one end of the ramparts that bended to the outside and the other end that bended to the inside of the *oppidum* (Figure 7: 18 and 19). In this way the ramparts created a 30-40 metres long corridor which was 10 meters wide (Metzler 1995: 33). Near the west gate the ramparts were quite elaborate: they were wide and they had a front and back revetment (Figure 7: 20; Metzler 1995: 72). Not much is known about the gate itself as it was destroyed during mining activities.

The construction works

The limestone used for the revetments, the inner walls and the filling material came from the immediate vicinity of the *oppidum*. Audun-le-Tich limestone is used in the main ramparts' first, third and fourth phase. Haut-Pont limestone was used in the fifth phase of the main ramparts and in both phases of the peripheral ramparts (Metzler 1995: 43, 46). These limestone layers are found at 300 metres east of the *oppidum* on a site called Prënzebiërg, between Titelberg and Differdange (Metzler 1995: 43). The Haut-Pont limestone layers lay underneath the Audun-le-Tich layers (Metzler 1995: 43, 65, 72). Their characteristics are discussed in appendix 2. It is quite normal that the upper layer, Audun-le-Tiche, was used in the first phases of the ramparts, and that the lower layer, Haut Pont, was used in the final phase of the ramparts. The use of limestone also revealed that in the fourth phase the main rampart was built before the peripheral ramparts were added, because for the main rampart the upper limestone layer was still used, while for the peripheral wall the lower layer was used.

According to Metzler (1995: 46) a lot of material and energy was spent to construct the *murus gallicus* ramparts. Based on the calculations of Fichtl⁴⁵ (2000: 53) approximately 1,081 – 2,106 m² of wood and 1,081 – 2,106 m³ of earth and stones would have been required to build the *murus gallicus* of Titelberg. It is very difficult to determine how many working hours are

⁴⁵ Fichtl (2000: 53) has calculated that the *murus gallicus* of Mont Beuvray which is 5 km long was made of 2,000 – 4,000 m² of wood and 2,000 – 4,000 m³ of earth and stones.

spent to build the ramparts. Based on the calculations for Mont Vully⁴⁶, it would take one hundred professional workmen to work continuously during 4.5 years, or one hundred non-professionals during 9 or 11.25 years to built the *murus gallicus* of Titelberg. However, this is just a rough estimation. The ramparts of Mont Vully were 600 metres long but their height and width is not mentioned. We can conclude that the construction of the *murus gallicus*, the first enclosing ramparts of the *oppidum*, was quite a material and energy demanding operation.

Conclusion

Titelberg was closed off by the main rampart in the Late Hallstatt –La Tène A period. At the end of La Tène D1 the ramparts were expanded and they enclosed the entire area. The ramparts were significant. Their constructions were complex and required large amounts of material and energy. The material for the ramparts was found in the vicinity. The ramparts must have had a defensive function as is shown by the ditch in the first two phases and the *glacis* in the final phase (Figure 8). From the start the ramparts were monumental and sophisticated. There were two gates. One gate led down to the valley, the opposite gate led to the plateau. There is not much information on the gates, apart from the fact that they are respectively 10 metres and 15-20 metres wide. The east gate had a bizarre location, at least from the time when the peripheral ramparts were constructed. The construction and maintenance of such ramparts indicates a central coordination and the potentiality to raise a large cooperating workforce. There must have been a substantial society that was well organised and that was, at least occasionally, centrally coordinated. There was a clear sense of monumentality and aesthetics that exceeded a mere defensive function of the ramparts.

5. The inner lay-out of the *oppidum*: urban planning and central organisation?

This section aims to find out if the *oppidum* was a centrally planned and organised urban settlement. I will test the presence and significance of the ‘traditional urban features’ and I will examine additional elements that may reveal the individual characteristics of the *oppidum*. Only a part of the *oppidum* area has been excavated at present (Figure 2) and only of some areas plans are available; there is a general plan of the *oppidum* (Figure 10), a

⁴⁶ The construction of the ramparts of the *oppidum* Mont Vully, Switzerland, would require 100 professional workmen to work during a full year, and less qualified workmen during 2 or 2.5 years (Fichtl 2000: 54)

detailed plan of the large area in the centre (Figure 2: 7; Figure 14), a plan of the adjacent area (Figure 2: 9; Figure 12) and a plan of the isolated sanctuary in the east (Figure 2: 8; Figure 28-33). As a result the information is limited and concentrated on the central part of the *oppidum* area. This has to be born in mind when interpreting the settlement evidence.

Settlement density

The inhabited area is 30 hectares. Settlement was not scattered, but clearly concentrated in the centre of the *oppidum* (Figure 9). A broad strip along the ramparts and the eastern part of the *oppidum* has been left vague (Figure 8). The settlement reached its peak in La Tène D2 (Metzler 1995: 91, 95). Settlement was dense in all excavated area (Figures 10 and 11). The structures were built next to one another, although the contemporaneity of the structures is not clear because stratigraphy is difficult to identify in Titelberg (Section 1) and because many structures are destroyed. Only structure five of the central area is dated (Figure 10: 5). It belongs to La Tène D2a (Metzler 1995: 146). In conclusion, settlement is concentrated in the centre of the *oppidum* and seems to be dense. There is much open space at Titelberg, including a distinct area in the east.

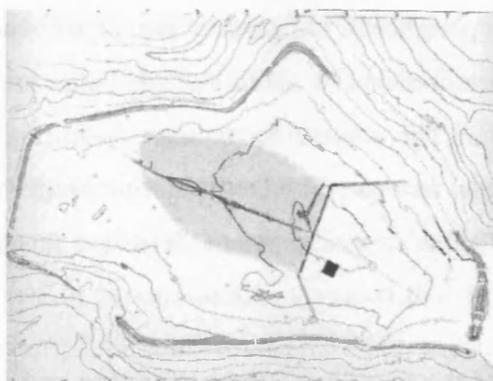


Figure 9: The settlement area (grey), and the sanctuary (black square)(based on Metzler 1995: 92, fig. 67).

Street plan

The main street connects the two gates and divides the *oppidum* in two halves (Figure 2 and 3). No other pre-Roman streets are found at present. Two Roman secondary streets branch off orthogonally from the main street (Metzler 1995: 91, 95). The main street is clearly the dominant axis in the settlement lay-out. Every building is orientated towards that street; the

sanctuary in the east as well as the structures in the settlement area, even in Roman times (Section 10). Moreover, the settlement structures are nicely aligned along this street, like modern towns (Figure 9). A wider street plan is not identified. It is clear that the main street crosses the entire *oppidum* through its centre and that it acts as the main axis for settlement organisation.

Settlement structures: palisades, fences, aligned buildings

A large ditch divided the *oppidum* into a settlement area and a vacant area. It had a well-designed shape. It ran along a straight line and both ends bended symmetrically to the east in an obtuse angle (Figure 9). The ditch was connected to the northern and southern peripheral wall. This way it closed off the east part of the *oppidum* (Figure 9). The main street crossed the ditch in a perfect orthogonal angle by means of a timber bridge (Metzler 2003: 265). This ditch was a prominent feature of the *oppidum*. It was more than four metres wide and about two metres deep. On the east bank, inside the east area, a wall made of stone and posts lined the ditch. This technique was unknown in Gallic *oppida* (Metzler 2003: 264, 2000: 436). In conclusion, the ditch and its wall formed a dominant landmark, in perfect accordance with the main street, and divided the *oppidum* in two clearly distinctive zones.

The ditch, the main street and the peripheral ramparts were the dominant features of the *oppidum's* lay-out. They were all constructed in the same period of time. The ditch and its wall were constructed at the end of La Tène D1 (Metzler 2000: 436), the peripheral ramparts at the end of La Tène D1 or the transition from La Tène D1 to D2 (Table 1), and the main street dates at least to this period (Metzler 1995: 95). It is clear that the *oppidum* of Titelberg was a centrally planned settlement. Around the end of La Tène D1 people decided and achieved extensive settlement planning and construction works. It implies the existence of a coordinating body and a large workforce.

Along the main street there was a ditch in front of the buildings (Figure 10). It may well have been a drainage system according to Metzler (1995: 104,106). The two smaller ditches that ran alongside house one ended in the main ditch. They were located at 0.75 metres from the long walls of the house which is at the length of the roof. Presumably they collected the rainwater from the roof and drained it into the main ditch (Metzler 1995: 104). On the other

hand they could as well be property boundaries, but postholes are not mentioned. Therefore the main ditch is interpreted as drainage ditch, although this is not necessarily its only function (Metzler 1995: 104). In conclusion, the *oppidum* of Titelberg probably had a public drainage system. It indicates that Titelberg was a well-organised settlement. Public drainage is also commonly valued as significant urban feature.

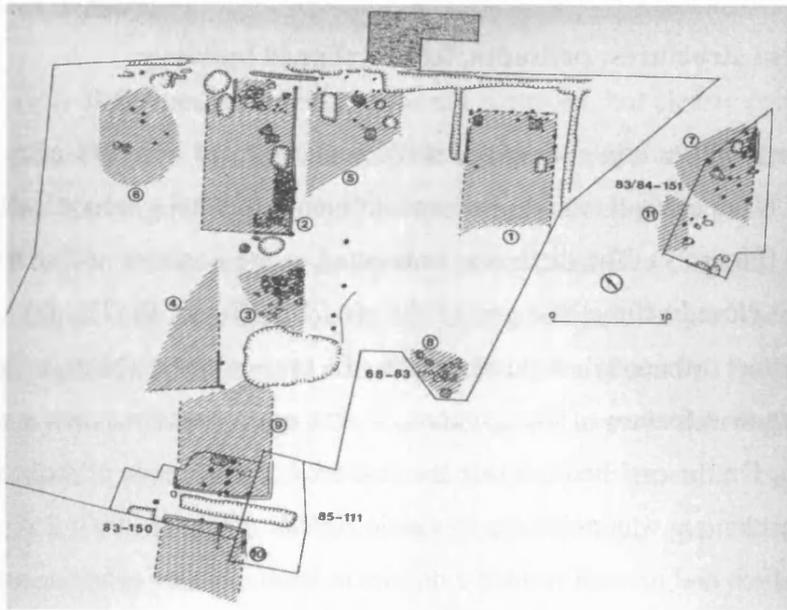


Figure 10: Pre-Roman structures in the excavation area 7 (Metzler 1995: 101, fig. 73).

The settlement area of Titelberg was densely built and well-structured. In the excavated settlement areas the buildings all have the same orientation; their small sides facing the main street (Figure 10 and 12; Metzler 1995: 118). The buildings along the main street are neatly aligned, almost like modern towns (Figure 11; Figure 10: 1, 2, 5, 6 and 11). It is an open-space development with regular house plots (Metzler 1995: 118). Metzler (1995: 118) argues that the settlement was organised according to a conscious urban plan, contrary to other *oppida*, such as Manching, that are rather collections of individual farms (Metzler 1995: 118). Unfortunately the organisation of the buildings at the back in area 7 is unclear (Figure 10). No secondary streets are recovered (Metzler 1995: 106). Maybe there was an open space to the east of buildings 4, 9 and 10. The pre-Roman layers in the excavated areas are heavily destroyed (Metzler 1995: 102-103). In conclusion, Titelberg was a well-structured, urban like settlement with regular house plots, standardised orientation and houses that were neatly aligned along the main street.

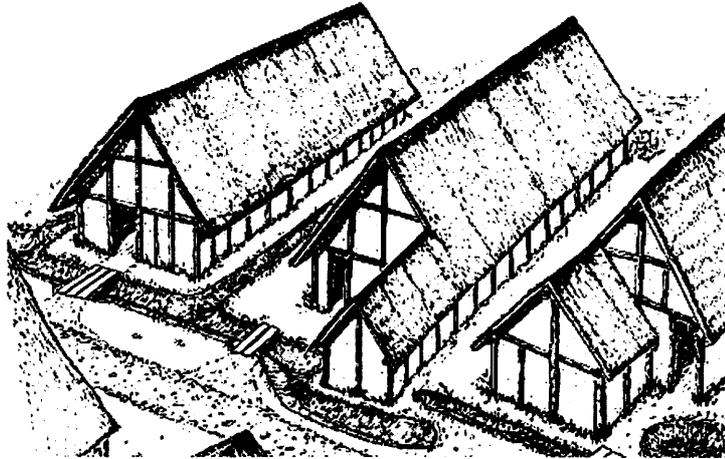


Figure 11: Reconstruction of the buildings in excavation area 7 (Fichtl 2000: 75).

Open spaces

The east *oppidum* area was clearly a planned open space. It was strictly separated from the settlement area. Settlement stopped abruptly at the ditch that enclosed the east area (Figure 9). No structure is found inside the area, apart from a sanctuary. Therefore it is considered to be a sacred zone. It was about twelve hectares in area. A large group of people could gather there for mass activities. The assumed Gallo-Roman enclosure to the west of the *oppidum* may have been a second public place (Figure 3: 7). Unfortunately little is known about this enclosure. Apparently it is not excavated (Figure 3). It may well have been a continuation of a pre-Roman enclosure or public place. In that case it was a second large public place at the *oppidum*. Apart from the enclosed public places, there is a vast open space alongside the ramparts (Figure 9). In conclusion, the east part of the *oppidum* was a large monumental public place and there were plenty of additional open spaces suitable for mass activities.

Standardised buildings

The buildings in the settlement area were highly standardised. They all had a rectangular form and they had approximately the same size (Figure 10). Each building is between 7.50 and 8.50 metres wide, but their length is not preserved (Table 2). They are all post and panel constructions with walls of wattle and daub and/or limestone. Most of the buildings had a small foundation trench. In conclusion, at Titelberg the buildings had a similar orientation,

form, size, material and construction method. Titelberg was a highly standardised, uniform settlement.

Buildings with preserved width (on Figure 9)	width
Building 1	7.80 metres
Building 2	7.80 metres
Building 9	8.50 metres
Building 10	7.50 metres

Table 2: Width of the buildings in excavation area 7.

Public buildings

Buildings with an exceptional form or size are generally considered to be public. The sanctuary of Titelberg in the east area was definitely a public building (Figure 3: 6). It was successively a palisaded passageway, a large open hall, a courtyard with arcade, an open temple and a *fanum* (Figures 28-33). The convincing evidence for a religious function will be discussed in section 9. However, profane functions should not be excluded. The sanctuary and its courtyard were the venue for ritual feasts, political meetings as well as markets (Section 9). Furthermore, the sanctuary was located in the large open public place of 12 hectares where all kinds of mass gatherings could take place. The sanctuary was built at the end of La Tène D1. This means that it was part of the major settlement planning and construction works, together with peripheral ramparts, main street and main ditch (previous section). The sanctuary was a permanent feature at the *oppidum* as it had a continuity of 300 years. Because of its continuity it may well have represented the stability of society and its connection with the past and the future. No other public buildings are identified at Titelberg at present. In conclusion, Titelberg had a large open space suitable for mass gatherings that was dominated by a permanent sanctuary where public activities, religious and profane alike, could take place.

Zoning

The *oppidum* is clearly divided into a settlement zone and a public zone (Figure 9). This distinction between public and settlement zoning was clearly visualised by the main ditch and its wall. It was part of the extensive settlement planning in La Tène D1.

There is no specific industrial zone. Industrial activity happened throughout every excavation area. In settlement area 7 the buildings were clearly houses (Section 6), but there was also a smith's oven, just outside building 5 (Metzler 1995: 104; Figure 10: 5), and a coin production workshop in the east part of the area (Metzler 1995: 147; Figure 10: area of 7 and 11; Figure 14). In the adjacent settlement area 10 there is also clear evidence for industrial activity. The rectangular house was a mint foundry (Thomas et al. 1975: 56-57; Rowlett et al. 1982: 302; Figure 12). Just outside the foundry there was evidence for coin production and possibly pottery production (Thomas et al. 1976: 244). Smithy and glass productions were found underneath the Gallo-Roman street (Thomas et al. 1975: 56-57, Figure 12). A bronze smelter was located in the ditch and oval pit near this street, but it may date to 50-10 BC (Thomas et al. 1975: 56-57; Figure 12). Metzler (1995: 102) still believes that there must have been a specific industrial area and he hopes future excavations will reveal such an industrial zone elsewhere at the *oppidum*. However, it is highly likely that there was no distinct industrial zone at Titelberg. There is clear evidence in both excavated area for living and working. Even in the sacred area metalworking is revealed (Section 9).

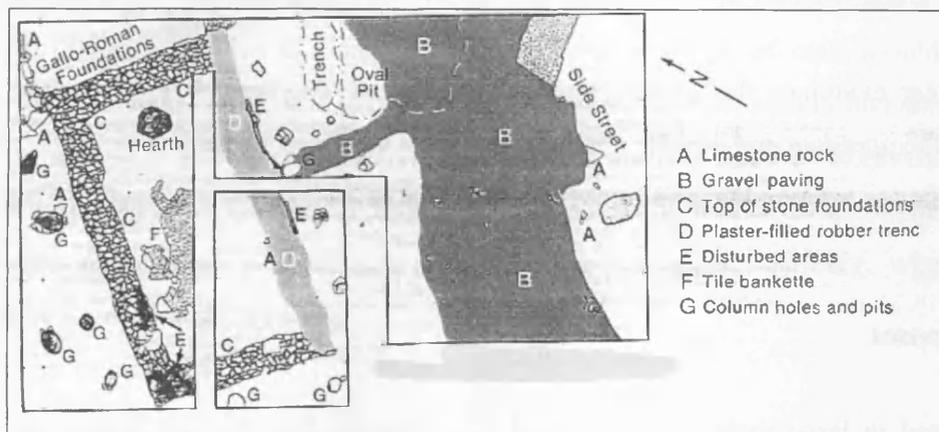


Figure 12: Structures in excavation area 10 (Thomas et al. 1975: p. 56).

In conclusion, in the *oppidum* of Titelberg there is a clear distinction between the public zone and the settlement zone. There was no distinct industrial zone. Working and living happened in the same area, often in the same building.

Conclusion

The *oppidum* of Titelberg was organised according to a well-thought out plan. In La Tène D1 all the dominant structuring features were built: the peripheral ramparts, the main street and the main ditch and wall. Settlement was concentrated in the centre of the *oppidum*. The excavated settlement areas were all densely built. They had a well-structured, urban-like layout with regular house plots and buildings that were neatly aligned along the main street. The buildings were highly standardised. These characteristics imply the existence of a central coordinating body. Together with the public-private zoning, the large open places, the public building and the drainage system they form a substantial set of the traditional urban features. According to Metzler (1995: 95, 118) Titelberg was a planned urban or proto-urban settlement from the start. It is not sure that La Tène D1 was the start of the settlement, but I do agree that Titelberg was a centrally planned settlement with a clear sense for monumentality that inclines the image of an urban settlement.

6. Daily life and economic activity: who lived and worked at the *oppidum*?

This chapter examines the socio-economic function of Titelberg. It aims to find out who stayed at the *oppidum* and which economic activities these people performed. It is designed to examine the assumption that *oppida* were central places.

Houses

People lived in large rectangular post and panel houses. Most of the houses had walls of wattle and daub and/or limestone, and a small wall slot. Unfortunately none of the floor plans is completely preserved (Metzler 1995: 102-103). The best preserved houses have evidence for an internal partitioning in two naves (Figure 10: 2, 9) or by an inner wall (Figure 10: 10; Metzler 1995: 104, 108, 110). Central posts supported the roofs (Metzler 1995: 103; Figure 10: 1, 5, 6; Figure 13). House 2 had a pavement with limestone slabs at the entrance. It is not clear if such a pavement is exceptional or common at Titelberg.

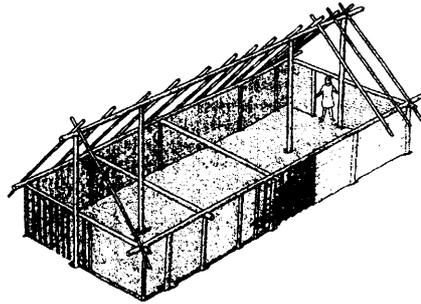


Figure 13: Reconstruction of a post and panel house in Bundenbach (Metzler 1995: 111, fig. 79).

In almost every house one or more hearths are found. House 1 also had an oven inside and a small oven outside (Figure 10: 1; Metzler 1995: 105-110). The house in area 10 had a hearth on the ground floor and one in the cellar (Figure 12; Table 3; Rowlett et al. 1982: 305-306). There were also storage places inside the houses: a storage pit inside house 1 (Figure 10: 1; Metzler 1995: 105-110) and a storage barn with posts inside house 9 (Figure 10: 9; Metzler 1995: 108-110). The designation 'house' is not really appropriate as it is too restricted. Very often people lived and worked in one and the same building. House 5 probably had a smith's oven just outside its wall (Metzler 1995: 104). The house in area 10 was also a coin mint (Figure 12; Table 3: level 3-8). This is proven by the presence of coin moulds, besides evidence for household activities, such as fireplaces, spindle whorls, pottery and animal bones (Rowlett et al. 1982: 302-309). Little is known about possible finds of excavation area 7. They were probably lost since the La Tène layers are not well preserved. In conclusion, there were hearths and storage places inside and near the houses at Titelberg, where people combined living often with working.

Care

The people of Titelberg cared for their appearance. Various toilet articles were found, such as tweezers and toilet instruments that consist of a pair of tweezers, an ear spoon, a pair of shears and a probe (Rowlett et al. 1982: 306, 308; Metzler 1995: 313). However, the latter may have been Gallo-Roman and is assumed to be the product of a workshop rather than personal equipment (Metzler 1995: 313).

Food supply: agriculture and cattle breeding

No large storage barns are found at Titelberg and there is no space for agriculture between the houses. Therefore Metzler (1995: 566-567) concludes that agricultural activities and cattle breeding must have happened outside the *oppidum*. However, the vast open space along the ramparts may well have suited small-scale agriculture and cattle breeding. In the yards between the houses there could have been vegetable gardens and small livestock such as chickens, ducks and dogs (Metzler 1995: 566-567). The general diet of the people at Titelberg mainly consisted of pork and beef, added with chickens and water birds, such as ducks, geese and swans, and even dogs (Metzler 1995: 566-567).

Coin production

At Titelberg there was definitely coin production. At least one major coin workshop has been found. The rectangular building in excavation area 10 was a house and a coin workshop from the 1st century BC until the end of the building which is thought to be dated to 70 AD (Figure 12; Table 3: floors 1-8; Rowlett et al. 1982: 302 ; Thomas et al. 1976: 252). The large amount of 1,179 fragments of coin moulds as well as the weights, metal fragments, crucibles, touchstones and other working tools justify its interpretation as coin workshop (Rowlett et al. 1982: 302; 305). At this workshop coin production continued and even increased in the Gallo-Roman period that generated 800 of fragments of coin moulds (Thomas et al. 1976: 247-249). The production of coins may well be related to the presence of a Roman garrison at Titelberg at that time (Section 10). The same workshop was in use for almost four centuries without major changes: the same cellar was used, the floor levels had the same alignment and even the hearths had the same location (Rowlett et al. 1982: 305; Thomas et al. 1976: 56-57; 252). Rowlett et al. (1982: 302) conclude that the workshop must have had a well-established, semi-sacrosanct quality for the inhabitants. In conclusion, there is clear evidence for a coin workshop at Titelberg. This workshop was significant as it was continuously in use for almost four centuries and its lay-out remained largely unchanged.

Floor level	Name of floor levels by the excavators	Culture-historical period	Chronology
1	Foundation house = brown earth floor	Mid-Augustan to Flavian	1 – 70 AD
2	Dalles floor house	Early Augustan	30 BC – 1 AD
3	Yellow-green clay	Roman conquest period	Ca. 55 – 30 BC
4	Orange-clay	Late La Tène period	Prior to 55 BC
5	Bright yellow soil	Late La Tène period	
6 7 8	Pale brown soil (three different floors)	Late La Tène period	1 st half of 1 st century BC
9 10 11	Orange brown soil (three different floors)	Late La Tène	2 nd century BC
12 13 14 15	Ashy (four different floors)	Middle La Tène	Ca. 300 BC

Table 3: Chronology of the floor levels of the house in excavation area 10 (Figure 12) (Rowlett et al. 1982: 306, table 1).

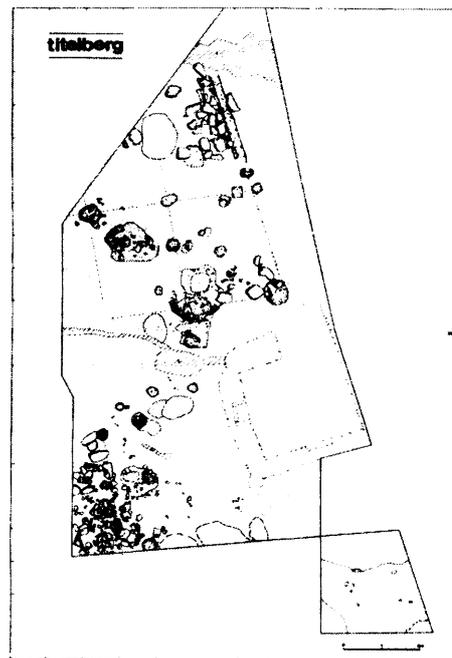


Figure 14: Detailed plan of the eastern part of excavation area 7, also located on figure 10. Complex 31-31B is the separate area at the bottom of the plan (Metzler 1995: 112, fig. 80)

Outside the coin workshop coins and coin moulds are found that dated to the 2nd half of the 1st Century BC (Thomas et al. 1975: 56-57). They probably belonged to the same workshop. In the vicinity of the workshop other industries, such as bronze working, iron working and glass production are demonstrated (Thomas et al. 1976: 244). In the adjacent complex 31-31B

of excavation area 7 coins and dozens of fragments of coin moulds were found. It may indicate the existence of a second coin workshop, although, these finds were probably re-deposited debris of the coin work shop of area 10 (Figure 14; Figure 10: east part; Figure 9: 7 and 10; Metzler 1995: 110, 118, 147).

In conclusion, evidence for coin production is found in the vicinity and adjacent area of the coin workshop. There are other industries nearby, but the existence of a second coin workshop is not sure.

At Titelberg an exceptional number of coins are found in comparison to other settlements. There were more than 4,000 La Tène coins (Metzler 1995: 120, 129). Three types of copper coins may well be produced at Titelberg; coin type 19 because 75% of all these coins are found at Titelberg, type 20 because 72.94% are found at Titelberg, and of coin type 21 as many as 90.24 % were located at Titelberg (Figure 15; Metzler 1995: 155). Also the small bronze HIRTIUS coin type and the bronze ARDA coin type were probably produced at Titelberg because they form the lion's share of all the coins found at the *oppidum* (Figure 16; Metzler 1995: 159). These are Gallo-Roman coin types. Hirtius was the *propraetor* of Gaul (Bowman et al. 1996: 522). The variety of produced coin types points to the high coinage activity at Titelberg, especially in comparison with the other tribes, according to Metzler (1995: 120, 129).

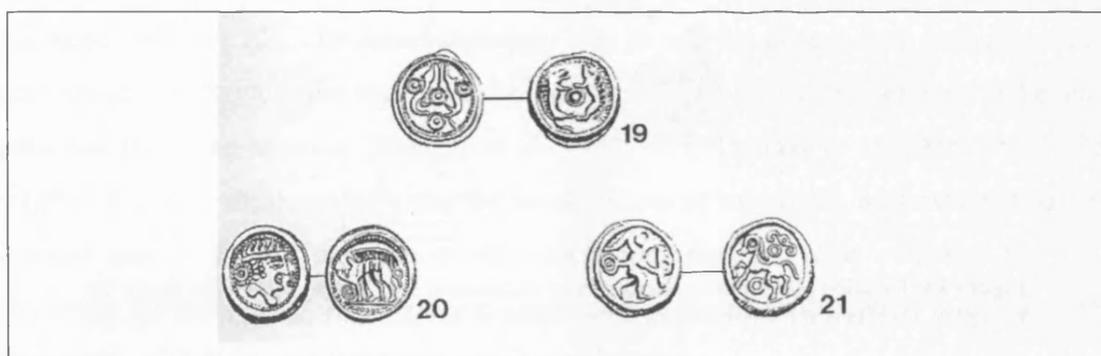


Figure 15: Coin types 19-21 (Metzler 1995: 127, fig. 87).

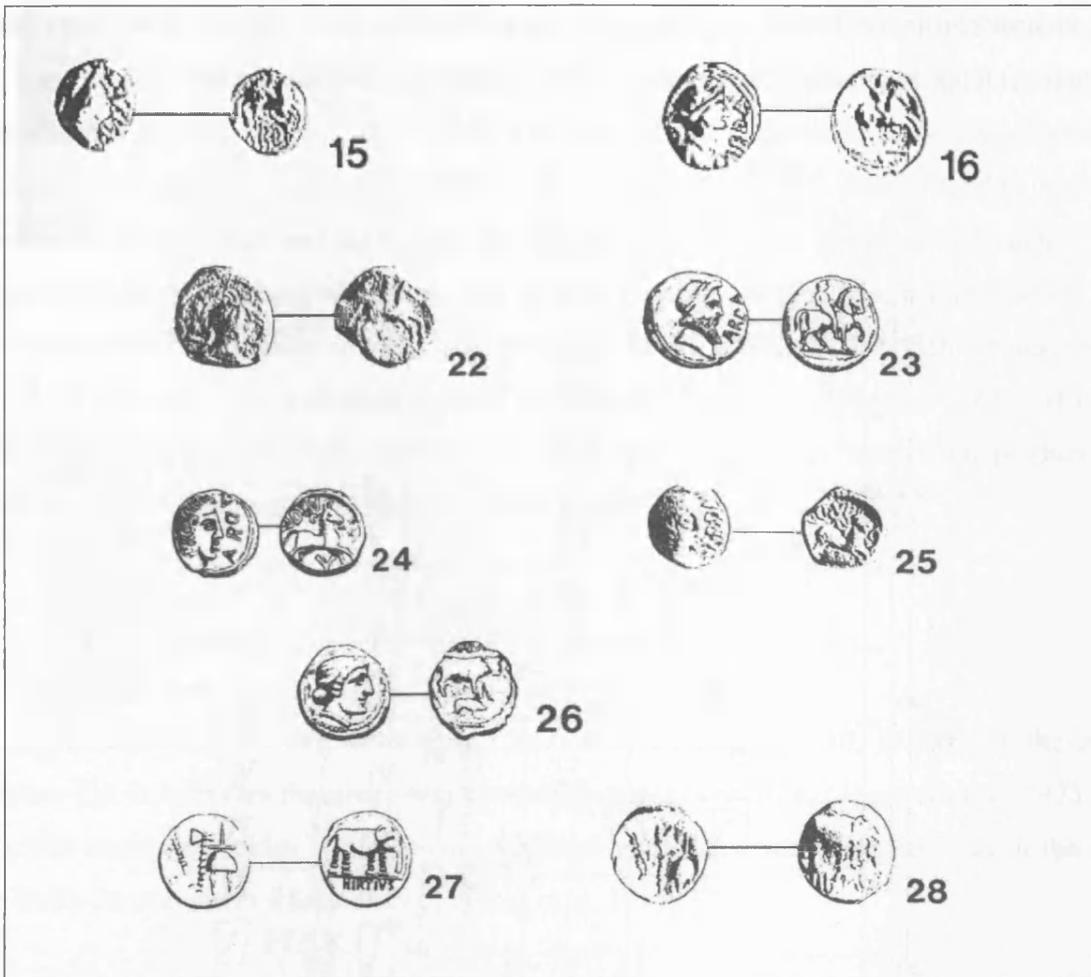


Figure 16: ARDA-coins types 15-16 and 22-26; HIRTIUS-coin types 27-28.
(Metzler 1995: 127, fig. 87 and 128, fig. 128).

Metal working

According to Metzler (1995: 325, 566) bronze working was the dominant industry at Titelberg, next to iron working. Unfortunately he adds no further information on the nature, location and amount of the evidence for bronze working. There was probably a bronze smelter in excavation area 10 near the coin workshop (Figure 12) since bronze slag and more than 200 moulds for casting blanks were found in cavities that dated to the second half of the first century BC (Thomas et al. 1975: 56-57). Next to this bronze smelter there may have been a smithy given the amount of iron slag (Figure 12; Thomas et al. 1975: 56-57). Outside house 5 in excavation area 7 there may have been a smith's oven (Metzler 1995: 104; Figure 9: 5), which may indicate that the house or a structure nearby was a smithy. Metalworking must have been highly valued as it also occurred in the sacred area near the sanctuary (Section 9).

In conclusion, iron and bronze working occurred everywhere at the *oppidum*. But, there is not enough evidence to conclude that Titelberg was a large-scale production centre.

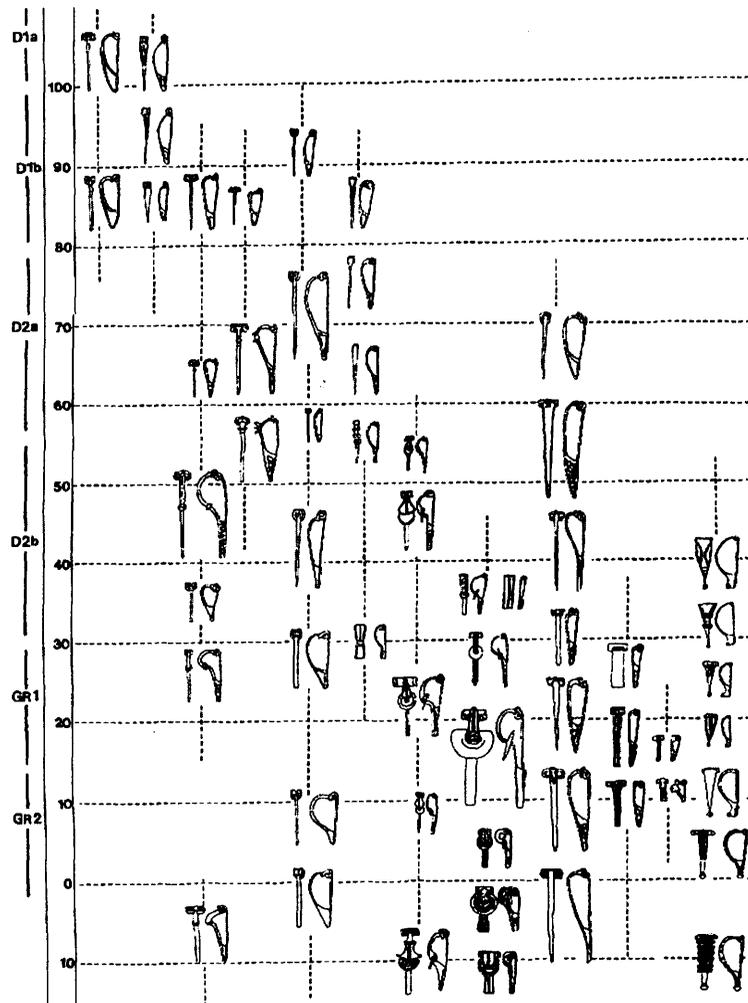


Figure 17: Chronology and typology of the *fibulae* of Titelberg (Metzler 1995: 249, fig. 127)

At Titelberg *fibulae*, cauldrons, buckets and toilet instruments were produced (Metzler 1995: 325, 566). The large amount of *fibulae*, their variety and the number⁴⁷ of unfinished *fibulae* may indicate that they were produced at Titelberg (Metzler 1995: 178; Figure 17). The production of *fibulae* would last from early La Tène D2 to the early Augustan period (Metzler 1995: 566). The production of bronze cauldrons is demonstrated by the amount of fragments and by the fact that the same type of handles were found at burials in Goeblingen-Nospelt, Wincheringen and Sainte-Marie-sur-Semois, which are all in the vicinity of Titelberg

⁴⁷ In his publication Metzler (1995: 251) mentions only 7 pieces. That may be the total amount. It is not recorded where exactly they were found.

(Metzler 1995: 325). The production of buckets is indicated by two bronze attachments that are considered to be mis-casts or unfinished objects because of their crude, granular surface and shallow profile (Metzler 1995: 324). The buckets are considered to be Aylesford-type buckets. This type is mainly found in rich burials (Metzler 1995: 322). Metzler links the production of cauldrons and buckets to the rich burials, but these burials mainly date to the Roman period. At Titelberg also seven sets of toilet instruments type Miron E are found. This is considered to be a large amount and therefore as an indication for their production at Titelberg. However, they probably dated to Gallo-Roman times (Metzler 1995: 313). In conclusion, *fibulae*, cauldrons, buckets and toilet instruments may have been produced at Titelberg, but not necessarily in the pre-Roman period.

Glass production

Large amounts of glass fragments were found in excavation area 10, underneath the street (Figure 12). It indicates that there was probably a glass workshop (Thomas et al. 1975: 56-57). The exact chronology is not known, but these workshops were cleared away at the time the Gallo-Roman street was laid out (Thomas et al. 1975: 57).

Production of ceramics

The only evidence for pottery production mentioned in the publications is the possible potter's tool outside the coin workshop in area 10 (Thomas et al. 1975: 57; Figure 12). Presumably pottery production did not happen on an industrial basis in the excavated area of Titelberg.

Wood working, bone working and leather working

Metzler (1995: 399) adds that the production of beer vessels is attested from La Tène D2b onwards. Bone and goats skin was also worked at Titelberg. Metzler does not give any further information about these industries.

Market place

An exceptionally large amount of coins is found at Titelberg. There are more than 4,000 La Tène coins of more than 30 different tribes, but apparently not many Mediterranean coins (Section 7; Metzler 1995: 120, 124, 129). Coins are generally interpreted as a commodity for trade and thus as evidence for a market function. This implies that Titelberg was probably a market place for a wide region. However, coins also have a symbolical value, as gift or religious objects. It is difficult to interpret the coins at Titelberg because the majority of the coins are surface finds and there is no information on their context or location (Metzler 1995: 120, 124). We do know that coins are found in settlement area 7 in and around the houses (Table 4; Metzler 1995: 146-147). It indicates that at least part of the coins of Titelberg was used in private contexts and may be used a commodity. In conclusion Titelberg was probably a place with wide regional exchange contacts. It is likely to have been a regional market place.

Building at excavation area 7	Amount of coins
Building 5	6
Building 6	3
Building 7	3
Building 9	'some'
Between building 9 and 10	'some'

Table 4: The amount of coins found in the buildings of excavation area 7 (from Metzler 1995: 146-147).

A large amount of animal bones is found in the east part of the *oppidum*. The study of the animal bones is ongoing (Metzler et al. 2006: 206). It shows that some of the bones are the result of specialised and large-scale butchery and some are the remains of meat consumption near the sanctuary (Metzler et al. 2006: 109-210). Metzler et al. (2006: 210-121; 208, fig. 5) conclude that Titelberg must have been a cattle market in La Tène D and in the Gallo-Roman period. But it also reveals that the *oppidum* may have been the venue for meat consumption as part of mass gatherings, for instance religious festivals.

Conclusion

People lived at Titelberg, in post-and-panel houses with hearths and storage places. There is enough space for vegetable gardens and small livestock, and maybe also for small-scale agriculture and cattle breeding. People often lived and worked at the same building. There is definitely industrial activity in Titelberg: coin production, bronze working, iron working, glass production are demonstrated. Coin production continued for almost four centuries and

even increased in the Gallo-Roman period. There was no specific industrial zone. Industrial activity occurred in the settlement area, and even in the public area. Different industries were located next to one another. There is not enough evidence to conclude that Titelberg was a large-scale production centre. The *oppidum* was presumably a regional market place and fair ground. It may have been a cattle market and/or the venue for mass consumption.

7. External contacts: the regions Titelberg had contact with

At Titelberg more than 4,000 Gallic coins are found. There are coin types of the Treveri tribe and of more than thirty other tribes: Remi, Catalauni, Suessiones, Meldi, Ambiani, Veromandui, Nervii, Mediomatrici, Leuci, Lingones, Senones, Sequani, Carnutes, Petrocorii, Aduatuci, Arverni, Biturges Cubi, Vindelici, Bellovaci, Atrebates, Lugdunum, the *pagus Catuslogi*, and other uncertain eastern or unknown tribes (Metzler 1995: 120, 124, 129, 163-177) The pottery types indicate that Titelberg had more affinity with southern and western tribes than with the Treveri of the east (Metzler 1995 : 387). In conclusion, Titelberg had wide contacts with the neighbouring tribes and it was probably mainly orientated to the west and the south.

The Mediterranean coins at Titelberg originate in Massilia and the Roman Empire (Metzler 1995: 163-177). Unfortunately there is no detailed information on the amounts, origins and chronology of the coins at Titelberg. Metzler (1995: 139) only mentions that there are 410 stratified coins in Titelberg of which 374 are determined: there are 119 Roman coins, 3 Iberian coins and 1 Greek coin. The amount of Roman coins is significant. They make up about 1/4 of the stratified coins. However, the amount of Roman coins in excavation area 7 is only abundant in the context that dates to the Gallo-Roman period (Figure 18: c and 19: c). Therefore the Roman coins do not necessarily represent intensive contacts with the Roman world in the La Tène period. There are no data from the other excavation area. In conclusion, it is likely that Titelberg had contacts with the Mediterranean in pre-Roman period, but the scale and intensity of these contacts is not clear.

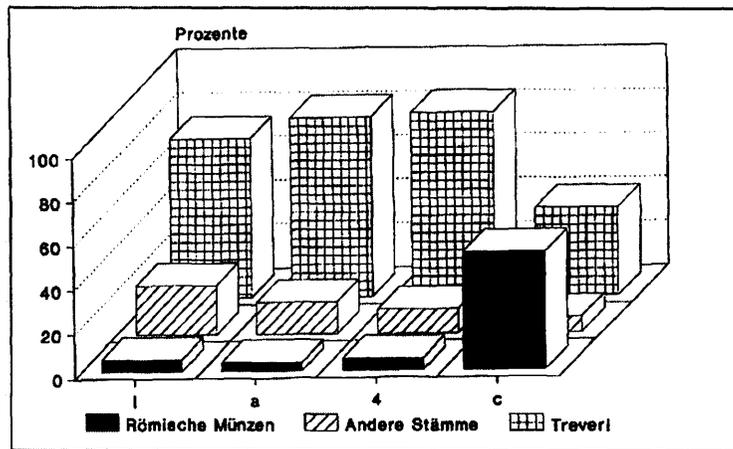


Figure 18: Distribution of coins in the major deposit complexes in excavation area 7 expressed as a percentage. Black: Roman coins, checked: Treveri coins, shaded: coins of other ‘Celtic’ tribes. I: settlement layer; a and c: two levels of the ditch along the main street; 4: small ditch in front of building 2 (Metzler 1995: 141, fig. 96).

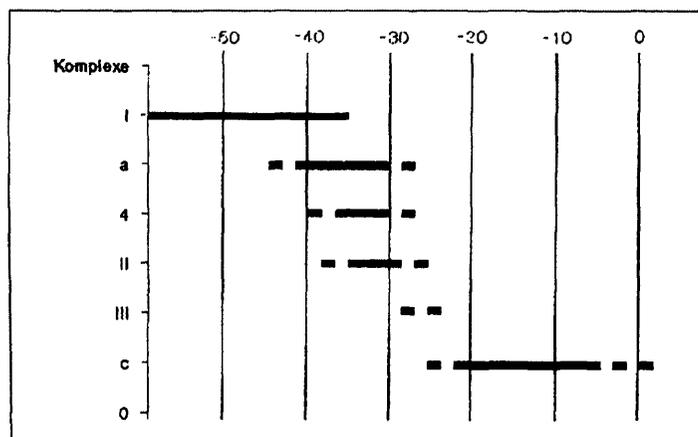


Figure 19: Chronology of the major complex layers in excavation area 7 (Metzler 1995: 139, fig. 95).

At Titelberg there are only a dozen of fragments of *campanian* pottery, which is a normal amount in north Gaul according to Metzler (1995: 480), but there is a large amount of *amphora* fragments. Titelberg is one of the most significant *amphora* locations, according to Metzler (1995: 461). Unfortunately, he does not add the exact number of *amphorae* or any other detailed information. The importation of *amphorae* would have started at the beginning of the 1st century BC and increased in the middle and second half of that century (Metzler 1995: 461). However, Bowman et al. (1996: 522-523) state that *amphorae* and *campanian* pottery only turned up when the Roman garrison was posted at Titelberg (29 BC - 16 BC). They consider the *amphorae* and *campanian* pottery of Titelberg to be part of the Roman military logistics and the associated trade by merchants following the Roman army (Section 10). This is a rather extreme and unlikely interpretation, but it highlights the possible

influence of the Roman camp to the amount of Mediterranean objects found at Titelberg. Because of the debated chronology of these Mediterranean imports they do not convincingly demonstrate that Titelberg had intensive contacts with the Mediterranean in the pre-Roman period.

Mediterranean imports	number of fragments
oil lamps	15
sieves of the type Christlein-Guillaumet	14
<i>simpula</i> of type 3 of Castoldi-Feugère.	4
jars	2
<i>balsamaria</i>	2
Aylesford-pan	1
goblet	1

Table 5: The amounts of imports mentioned in the catalogue of the Metzler 1995 volume on Titelberg.



Figure 20: Distribution of Aylesford pans (Metzler 1995: 333, fig. 173).



Figure 21: Distribution of *simpula* of Castoldi/Feugère type 3 (Metzler 1995: 334, fig. 174).



Figure 22: Distribution of Christlein-Guillaumet type sieves (Metzler 1995: 337, fig. 178).

Other Mediterranean imports are *balsamaria*, oil lamps, bronze jars, goblets, sieves, *simpula* and ceramic plates (Metzler 1995: 383). The Aylesford-pans are widespread in northern Gaul but the *balsamaria* and the types of goblets and *simpula* are rather unusual (Figure 20 and 21; Metzler 1995: 332-334; fig. 19-20). According to Metzler (1995: 326) the imports were

luxury goods for the elite. Because of the fact that they are mainly connected with eating and drinking they are commonly linked with the tradition of Greco-Italian *symposium*. Metzler also states that Titelberg was a central distribution market for such luxury goods. However, there is no information on the numbers of Mediterranean imports. Only the catalogue (Metzler 1995) contained some descriptions. They are summarised in Table 5 and reveal that the Mediterranean imports were not that numerous. One exception is the find of sieves. Yet, this type of sieve is probably produced in Gaul and not in the Mediterranean (Figure 22; Metzler 1995: 335). Furthermore, only these sieves are clearly dated in the La Tène⁴⁸ period. There is no information on the chronology of the other imports. In conclusion, there is no clear evidence for reasonable amounts of imports from the Mediterranean in pre-Roman Titelberg. The *oppidum* is not proven to be a distribution market for elite imports.

Conclusion

Titelberg had wide contacts with the neighbouring regions. It also had Mediterranean contacts but the intensity and scale of those contacts is not clear. The pre-Roman *oppidum* is not proven to be a distribution market for Mediterranean imports.

8. Social structure: hierarchy and elite?

How many people actually lived at the *oppidum*?

Presumably a substantial amount of people lived in and around the *oppidum*, given the accomplishment of the large-scale public works in La Tène D1 (Section 5). The settlement area of the *oppidum* was 30 hectares. Yet, it is not clear how many houses there were at a given period of time because only a part of the *oppidum* is excavated. The settlement record does not provide information on population sizes.

The key source of information is the burial population. The *oppidum* is accompanied by several cemeteries and burials (Figure 3 and 5). Only the Lamadelaine cemetery, just outside

⁴⁸ The sieves of the type Christlein-Guillaumet at Titelberg date to the end of 2nd century BC and especially to the first half of the 1st century BC (Metzler 1995: 335; fig. 21).

the west gate, is well studied and published (Figure 3: 8; Figure 5: 2). At least 82 people of all different age groups have been buried at the cemetery (Table 6). The cemetery was in use for about 120 years or five generations, from La Tène D1 until Gallo-Roman period 2 (Metzler et al. 1999: 440). This means that there were in average 14 people per generation. That is a small amount for settlement population. Yet, the cemetery is definitely incomplete. An unknown number of burials have been destroyed (Metzler et al. 1999: 18). And not all the members of society were buried on the same location. On the opposite side of the *oppidum*, outside the east gate, there was another cemetery with 45 cremation graves (Figure 5: 4; Metzler 1995: 532). This cemetery has been dated to Gallo-Roman 1 period, although it may be older than previously thought (Metzler et al. 1999: 16). Various other Late La Tène or early Roman burials were located outside the *oppidum* (Metzler 1995: 19-20; Section 2). In conclusion, at least 125 people were buried near the *oppidum* between La Tène D1 and Gallo-Roman 2. They were presumably inhabitants of the *oppidum*, or its vicinity, but their number is definitely incomplete.

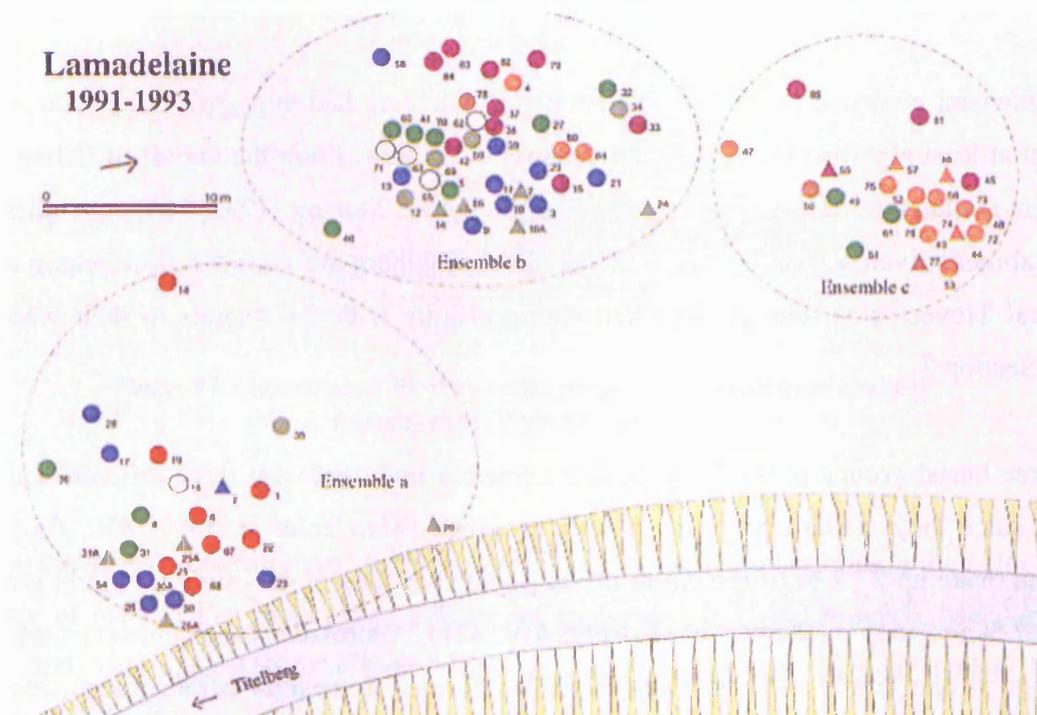


Figure 23. Plan of the cemetery Lamadelaine. Circles: burials; triangles: structures without human remains. Red: La Tène D1; blue: La Tène D2a; green: La Tène D2b; grey: LT?; orange: Gallo-Roman 1; purple: Gallo-Roman 2; light-brown: Gallo-Roman?; white: unknown date (Metzler et al. 1999: 437, fig. 395).

Age group	Number of individuals
adults	52
young adults	2
adolescents	1
children between 7-14 years of age	3
children younger than 7 years	12
unknown	12
total amount	82

Table 6: Amount of individuals per age group at the Lamadelaine cemetery
(From Metzler et al. 1999: 249, 256-257)

There are various burials and cemeteries in the vicinity of Titelberg (Figure 5). They may have belonged to inhabitants of the *oppidum*, but it is likely that at least a part of these burials belonged to the people who lived in the dispersed settlement. These people may however have been related to the *oppidum*. The burials have not been excavated yet, but they reveal that there was a substantial population living in the vicinity and concentrated nearby the *oppidum* (Figure 5).

Who were the inhabitants?

The settlement evidence shows that the people of Titelberg had their own basic food supply and that at least a part of the population consists of artisans. From the import of Italian wine and from the amount of coin finds in and near the houses Metzler (1995: 566) concludes that the inhabitants lived a wealthy life. The people of Titelberg are considered to belong to the historical Treveri tribe, though they had strong affinity with the regions to their west and south (Section 7).

The three burial groups at the Lamadelaine cemetery may represent three different families groups since they contain children as well as adults (Metzler et al. 1999: 420, fig. 386). Children make up 27.7 % of the entire burial population: 34.6 % in group a, 28% in group b and 16.7 % in group c (Metzler et al. 1999: 419, 421). Alternatively the cemetery may have belonged to one family of which new branches formed a separate burial group, since the burial groups do overlap and none of them lasted for the whole cemetery period (Figure 24). There seems to be even a gradual shift in burial activity from south to north: group a started first, then group b and later group c (Figure 23 and 24). Burial group a was in use for 70 years or 3 generations, group b for 95 years or 4 generations and group c for 80 years or 3

generations (Metzler et al. 1999: 442). The Lamadelaine cemetery probably belonged to families, whether different family groups or different parts of one extended family.

	D1	D2a	D2b	GR1	GR2	
ensemble a	1					
	6	17				
	18	23				
	19	26				
	22	28				
	25	30	8			
	67	30A	31			
	68	54	36			
D sans phase : 35						
sans datation : 16						
	D1	D2a	D2b	GR1	GR2	
ensemble b		3			15	
		9			33	
		10	5		37	
		11	27		38	
		13	32		42	
		21	40		79	
		29	41	4	81	
		39	60	64	83	
		58	70	80	84	
	D sans phase : 12, 34, 59, 69				GR sans phase : 78	
	sans datation : 62, 63, 65, 71					
	D1	D2a	D2b	GR1	GR2	
ensemble c				43		
				47		
				48		
				52		
				53		
				56		
				72		
			49	73		
			51	75	45	
			61	76	85	
GR sans phase : 50						
81 = époque claudienne						

Figure 24: Chronology of the three burial groups at the Lamadelaine cemetery (Metzler et al. 1999: 441, table 35).

But the distinction into different burial groups may be based on other criteria than blood ties. Because of the fact that the weapon burials are all located in burial group b, Metzler et al. (1999: 300, 381) suggest that this burial group may have belonged to foreign warriors, buried separately from the original inhabitants. However, the weapon burials are not very different from the other burials and, moreover, not all the burials in burial group b contained weapons. The weapon burials all date to La Tène D2. The presence of weapon burials may therefore simply indicate that in this period there was an increased danger or increased symbolical value of weapons. It could be related to Caesar's conquest of Gaul which happened in this period. However, any interpretation of the burial groups remains highly speculative.

Social differentiation?

The settlement evidence of Titelberg does not reveal any social hierarchy (Section 5). The buildings were highly standardised. No structure stands out as a possible elite residence. There is no distinct industrial zone that would imply the separation of a social class of workmen, as is often assumed. There is no information on the spatial distribution of objects. The settlement record does not demonstrate a hierarchical society.



Figure 25: Fingerring in burial 36 of the Lamadelaine cemetery
(Metzler et al. 1999: 157, fig. 156).

Traditional indicators for social hierarchy in a burial population are a distinct burial rite and rich burial gifts, mainly weapons, ornaments and imports. The burial rite at the Lamadelaine cemetery was only differentiated according to the age of the individual; cremation was the rule, while inhumation was restricted to perinatal individuals (Metzler et al. 1999: 250; 256). The grave goods are relatively poor in all the burials. Only thirteen burials had some ornaments other than *fibulae* and there are only seven weapon burials (Metzler et al. 1999: 198, 300). However, these objects were not very special; there was only one sword and the ornaments consisted mainly of beads (Metzler et al. 1999: 152-158, 381). Moreover, the ornament and weapon burials were not exceptional in any other way. There is only one outstanding burial. It belongs to a young individual buried with a bracelet and an exceptional finger ring (Figure 25). This individual must have been significant in some way, especially since the rings are not its daily dress because they are too large. Yet this one young person can hardly be considered clear evidence for the existence of an elite class.

Finally, Mediterranean *amphorae* and *dolia* were found in every single burial at the cemetery. The *amphorae* were broken into small pieces to be used as a kind of pavement, a feature that also occurs in the burial mounds of Clemency and Goebblange-Nospelt (Metzler 1995: 401-

403). Thus, the imports do not reflect any social hierarchy in burial population. In conclusion, there is no evidence for an elite class in the burial population of the Lamadelaine cemetery. On the contrary, there is a remarkable lack of social hierarchy. This is clearly expressed by the fact that every body received Mediterranean grave goods.

On the other hand, the lack of hierarchy does not imply social homogeneity. There was a remarkable individuality in burial deposits. No two burials had the same deposition of animal bones (Figure 26). This is exceptional (Metzler et al. 1999: 373). The burial society displays a high degree of individuality. This may well reflect a differentiated society that is not hierarchical, where one's social position is based on personal status instead of inherited status.



Figure 26: Cremation burials of the Lamadelaine cemetery (Metzler et al. 1999: fig. 9).

Metzler (1993: 276) concludes from the rather egalitarian burial rite that the elite class must have been buried outside the *oppidum*. He interprets the rich burial tombs in the vicinity, in Pétange, Clemency and Goebange Nospelt (Figure 5; Section 2) as the burials of the elite of Titelberg. These burials are generally considered to be aristocratic burials because of the elaborate burial chamber and grave goods (Metzler et al. 1999: 13). In Pétange richly decorated swords are found (Figure 5: 4). This is enough an indication for Metzler et al. (1999: 16) to assume that it is an aristocratic burial. It alludes to a warrior class. The burial tomb of Clemency contained a large quantity of tableware, food offerings and *amphorae* (Figure 5: 5; Figure 27; Metzler et al. 1991: 105). It is dated in La Tène D2a, in 80-70 BC (Metzler 2002: 180). In Goebange-Nospelt five burial tombs were found. The three richest

burials are indeed extraordinary. They exceptionally display all the elements of a classical banquet and wine service. Tomb B contains sixteen *amphorae*, as well as a Roman sword. However, they date to the Gallo-Roman period 1 (Metzler 1995: 274; 2002: 182). The two other tombs date to La Tène D2b, 50-40 BC. They are less astonishing. Their status as elite burials is deduced from the sword and spurs in one tomb, and the drinking horn and *amphora* the other (Metzler 1995: 274).

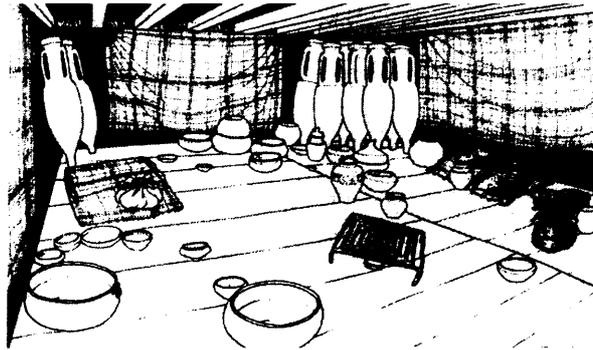


Figure 27: Reconstruction of the burial chamber of Clemency (Metzler 2002: 181).

The presence of such burial mounds at Clemency and Goebange-Nospelt is exceptional in contemporary Europe. They are very often referred to as evidence for the existence of aristocracy (e.g. Metzler 2002). The burial mounds are indeed very different from the burials at the Lamadelaine cemetery. They have no mounds and no burial chambers, and they contain only parts of pigs and only fragments of *amphorae* (Metzler et al. 1999: 431). However, the burial mounds at Clemency and Goebange-Nospelt do not necessarily belong to aristocracy and they are not necessarily connected with the *oppidum*. First of all, they belong to the Roman period and the end of the *oppidum* period. Furthermore, it is hard to understand why an aristocracy that leads the *oppidum* society is not buried on a visible location nearby the monumental *oppidum*, but instead as far away as 5 km (Clemency) and 17 km (Goebange-Nospelt). The burial mounds of Clemency and Goebange-Nospelt are indeed extraordinary. They may well have belonged to people with a specific social status. The Clemency burial as well as the female burial at Goebange-Nospelt had numerous libation pits that indicate a long lasting devotion of the dead. The latter even received offerings until the second half of the second century AD (Metzler 2002: 182). The dead may well have had sacred power or ancestral functions. In conclusion, there is no clear indication that the burial mounds at Clemency and Goebange-Nospelt belong to an aristocracy that leads the *oppidum* society. They may rather belong to exceptional individuals with a personal status or a kind of social elite.

Conclusion

It is not clear how many people actually lived at Titelberg. At least 125 people were buried near the *oppidum* between La Tène D1 and Gallo-Roman 2, but this number is incomplete. There was also a substantial population in the dispersed settlement in the vicinity of the *oppidum*. The *oppidum* population probably consisted of families. The society was remarkably egalitarian. There is high degree of equality and a lack of social differentiation in settlement and burial evidence. The burial mounds at some distance from Titelberg are a late development. They may have belonged to individuals with personal status and not necessarily to a ruling elite class.

9. Religion: communal cult place?

The sanctuary and its enclosure

The east part of the *oppidum* was a vast public space of 12 ha. It was separated from the settlement zone by a monumental ditch with a wall of stones and posts (Figure 2 and 3; Section 5; Metzler et al. 2000: 436). There are many indications for the sacred function of this distinct area. The enclosing ditch had a sacred character. This is revealed by the objects found inside (Metzler et al. 2000: 431). The area itself was large open space and the only structure inside was a sanctuary. The name sanctuary is appropriate. Its religious function is clear from the architecture and from the activities that took place near the sanctuary.

The ditch was constructed in La Tène D1 and filled in the Augustan period (Metzler 1995: 96). It contained various remains that may well indicate ritual activity. First of all large amounts of animal bones were found in the ditch. Most of the animal bones were individual parts, but some skeletons of pigs, dogs and a horse were complete. The horse had clearly decayed before it was thrown in the ditch and it was exposed in the ditch during a long time. Other ritual objects are silver and bronze miniature weapons, bronze wheels and some human bones, mainly skulls (Metzler et al. 2000: 431; 2003: 265). There were also large amount of bronze cauldron fragments, more than in the settlement area (Metzler 1995: 325). The objects inside the ditch recall the practice of sacrifice in northern Gaul (Metzler et al. 2000: 432). In

conclusion, the human bones, animal bones and small ritual-like objects give the ditch a sacred character.

The sanctuary has a long continuity. Various extraordinary buildings succeeded one another. Of the first structure, in period 1a, only some pits and postholes were recovered (Figure 28: 1a; Table 7: 1a). It is not possible to recognise the structure because the area is not completely excavated yet. In the next phase, period 1b, there were enigmatic parallel palisades perpendicular to the direction of the main street. The palisades formed 4 m wide and at least 60 metres long corridors (Figure 30; Figure 28: 1b; Table 7: 1b; Metzler 2003: 265). They were reconstructed several times, maybe on a regular basis. A comparable system of corridors may be found in Villeneuve-Saint-Germain (Chapter 1: Figure 2b; Metzler et al. 2006: 204).

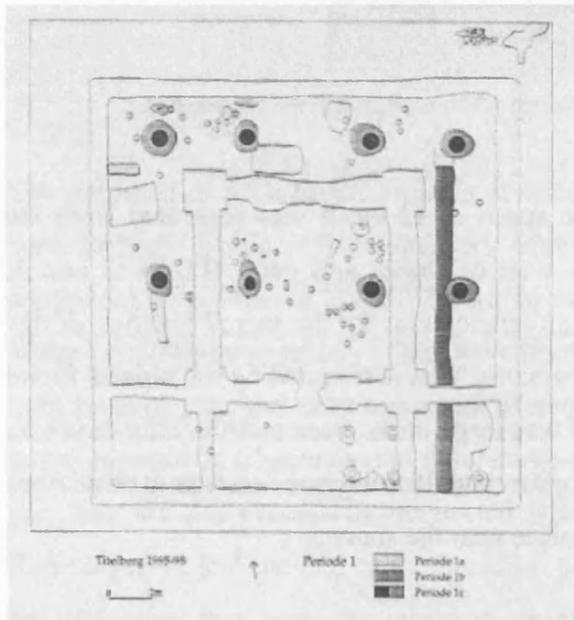


Figure 28: Sanctuary phase 1a, 1b and 1c (Metzler et al. 2000: 439, fig. 8).

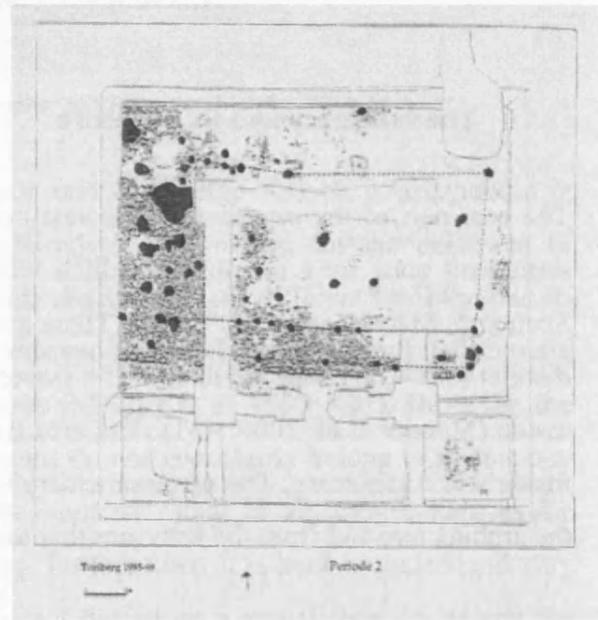


Figure 29: Sanctuary phase 2 (Metzler et al. 2000: 440, fig. 9).

In the third phase, period 1c, the palisades were pulled down and a large wooden structure was built on their former line (Figure 30). It was a rectangular open hall that was 14 by 15 m large and exceptionally high, to judge by the monumental posts with a diameter of 60 cm (Figure 28: 1c; Metzler et al. 2000: 437; Metzler et al. 2006a: 204). Moreover, it was located on the highest point of the *oppidum*, exactly on the axis of the two gates. Therefore it must have been a clearly visible and dominant mark of the *oppidum* (Metzler et al. 2006a: 204). There was a kind of courtyard between the hall and the main street. In the east there was a

second open building (30; Metzler et al. 2006a: 204). In the centre of the courtyard, right in front of the hall there was a square structure of stones (1 x 1 m) that appears to be an altar. It was surrounded by various fireplaces and large pits (Figure 30; Metzler et al. 2006a: 204).

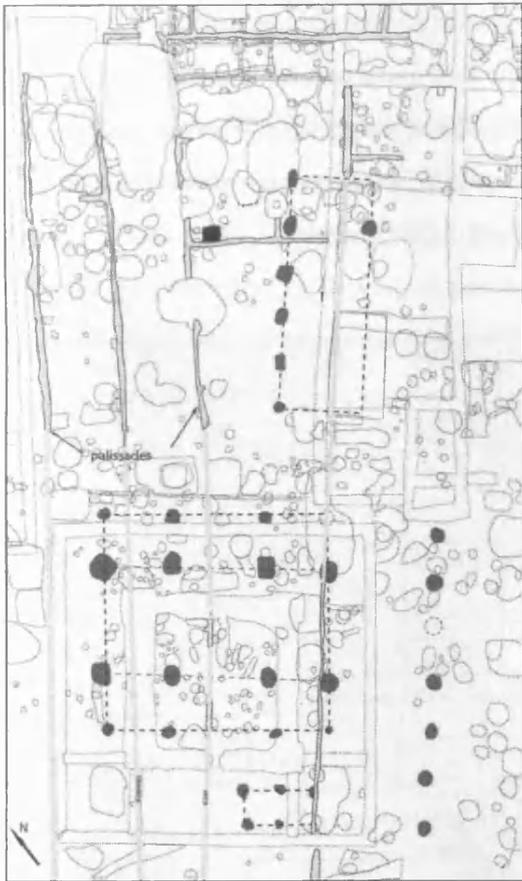


Figure 30: Plan of the sanctuary in phases 1 and 2 (Metzler et al. 2006a: 205, fig. 2).

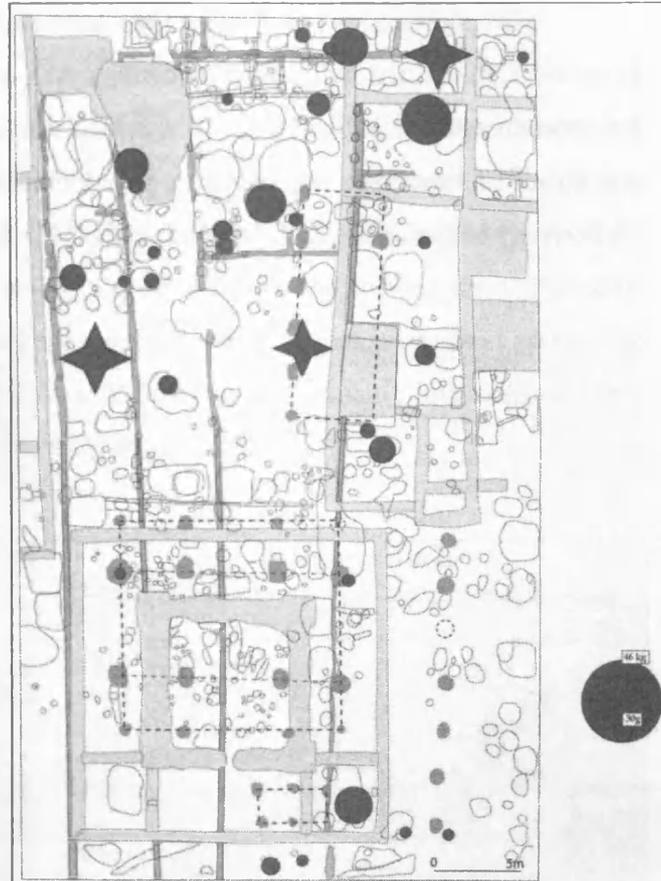


Figure 31: Location of the main bone deposits at the sanctuary. Circle: in cavity; star: at ground level. The size marks the quantity of bones in weight (Metzler et al. 2006a: 207, fig. 3).

Around the 20's BC this sanctuary was demolished and the large enclosing ditch of the east area was filled in. These are radical changes. Metzler et al. (2006a: 206) relate these changes with the foundation of the city Augusta Treverorum that is assumed to take over the role of Titelberg (Table 8; Section 10). However, the east area remained an open space and the sanctuary was restored. In the next phases of the sanctuary, period 2 to 5, Titelberg was already under the influence of the Romans (Table 7).

In period 2 a limestone pavement was laid out, surrounded by a wooden arcade or a post-and-panel fence (Figure 29 and 30). This happened at the end of the 1st century BC, so not long after the destruction of the hall and the ditch. Inside the paved enclosure there were numerous

fire places, large square pits containing ceramics, and thousands of animal bones (Figure 31; Metzler et al. 2000: 438; Metzler 2003: 267; Metzler et al. 2006a: 206). The various light constructions were probably stalls. In this period also bronze workshops appeared along the main street, at the other end of the pavement (Metzler et al. 2006a: 206).

In period 3, in the first half of the 1st century AD, a new sanctuary was built at the location of the previous open hall (Figure 32). It was a 12 x 12 m open building with pillars on every side and a roof of limestone slabs (Figure 32). There was still a paved courtyard and dozens of fireplaces (Metzler 2003: 267; Metzler et al. 2000: 440-441; 2006a: 206).

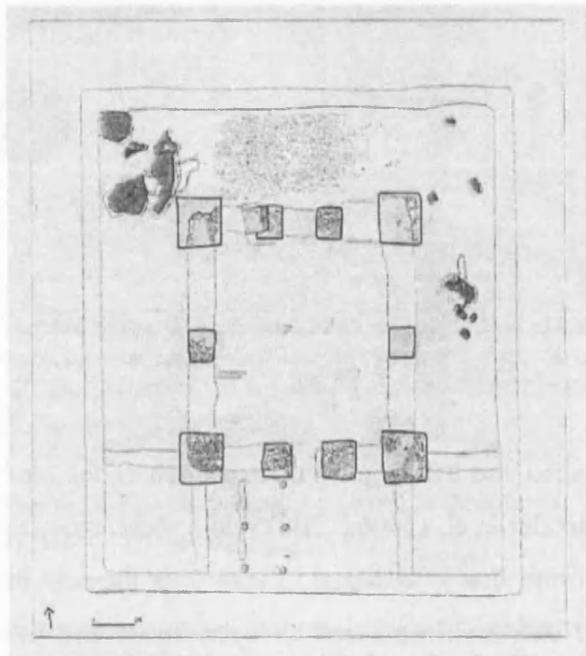


Figure 32: Sanctuary phase 3 (Metzler et al. 2000: 441, fig. 10).

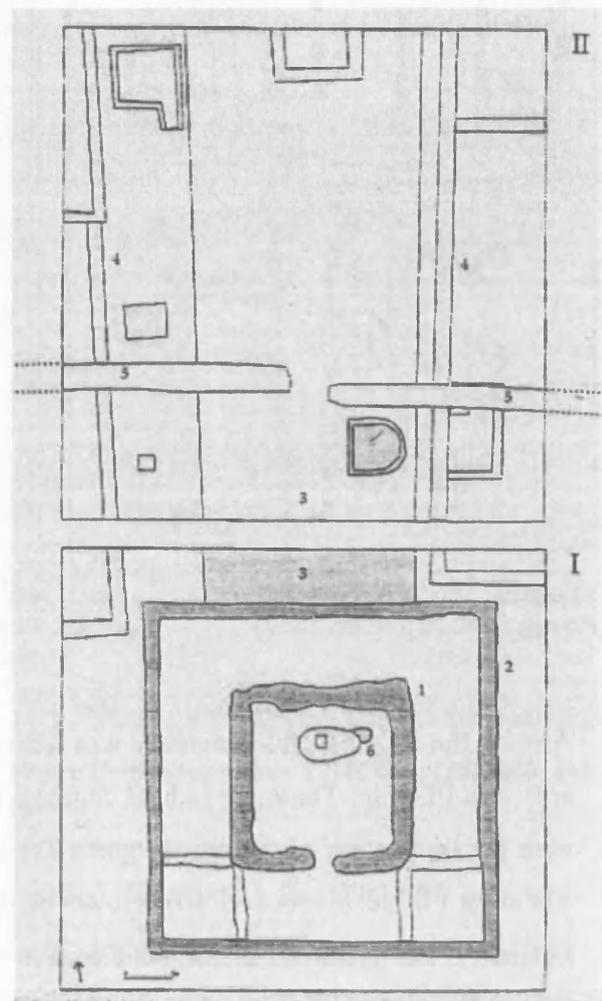


Figure 33: Sanctuary phase 4 and 5. 1: cella; 2: gallery; 3: paved front court; 4-5: buildings and palisade ditch of Gallo-Roman period; 6: pit with coin hoard (Metzler et al. 2000: 443, fig. 11).

In period 4, in the 2nd Century AD, a classical *fanum* was built on the same spot. The *cella* had the same dimensions and plan of the period 3 sanctuary. Around the *cella* there was a 21 x 21 m gallery or *porticus* (Figure 33). The courtyard was on both sides girdled by annexe buildings, chapels and votive monuments. The temple and whole complex must have been adorned by numerous sculptures (Figure 34; Metzler et al. 2000: 441-442; 2003: 267).

In period 5, in the 3rd century AD, after the destruction of the sanctuary, a ditch was dug around the *fanum* ruins and a cubic limestone block was located in the centre of the former *cella* (Figure 33). A hoard of 615 Antoniene coins was hidden in a ditch. The ruins of the sanctuary continued to be visited and the block in *cella* indicates the craving for continuation of the place. The religious function of Titelberg must have been one of its greatest assets. The place was destroyed for good, probably by the second wave of Germanic invasions and then the area was left in ruins (Metzler et al. 2000: 444; 2003: 268).

Main period	Phase of sanctuary	Chronology	Main structures
La Tène period	Period 1	End of LT D1 – End of the 1st century BC.	
	1a	end of LT D1 -	Post structure(s)
	1b	beginning of 1st century BC	Palisade passageways
	1c	before 50 BC	Large open hall Square building Courtyard with altar-like structure surrounded by fireplaces and large pits
Time of Roman conquest	Period 2	End of the 1st century BC	Paved courtyard with fence or arcade Fireplaces, pits, light structures and bronze workshops
Gallo-Roman period	Period 3	First half of the 1st century AD	Large building of 12x12 m Paved courtyard Fireplaces
	Period 4	2nd Century AD	<i>Fanum</i> with <i>cella</i> and gallery of 21x21 m Annexe buildings and sculptures
	Period 5	3rd century AD	Ditch around ruins Cubic block at location of <i>cella</i>

Table 7: Chronology of the different phases of the sanctuary (based on Metzler et al. 2000: 436-444, 2003: 265-268 and on various descriptions referred to on the previous pages).

The continuity for about 300 years indicates that the east area had a firmly established value and significance. One particular place is uniquely special; the highest point of the *oppidum* that is also in line with the two gates. On this spot there was subsequently the palisade

passageway, the high and large open hall, the rectangular building and the *fanum* with *cella*. Each of these structures is extraordinary. Buildings with unusual architecture are generally interpreted as sanctuaries. Moreover, the *fanum* with *cella* is the traditional architecture of Gallo-Roman sanctuaries. It is therefore clearly a sanctuary. Not only the building, but the whole complex of the courtyard had a clear continuity. The place between the main buildings and the street was first the scene for the passageways and later it became a paved courtyard for centuries. The courtyard had an annexe building, later also a wooden arcade or fence, and finally two rows of annexe buildings. There was some kind of altar on the courtyard; in the middle of the courtyard in period 1c and in the centre of the former *cella* in the final period. The complex of structures in the east area of the *oppidum* clearly had a religious function. The amazing continuity reveals a deep-rooted belief and the embedded sanctity of the place.

Ritual and other activities at the sanctuary and its enclosure

The east area was a vast open space, appropriate for mass gatherings, and it had a sanctuary at its summit. Therefore this area is expected to be the location for ritual activities. Yet other public events may also have taken place there.

Ritual activity is revealed by the votive objects found in the sanctuary⁴⁹ such as *fibulae*, coins, miniature weapons, and a large amount of lead tokens and miniature wheels which may be connected with a kind of sun-cult (National Museum of Luxembourg). These votives were probably ritually deposited or exposed in the sanctuary. It is not clear which deities were worshipped at the sanctuary. Various sculpted heads were found that date to the first three centuries AD. They may well represent gods or ancestors (National Museum of Luxembourg). One of the heads is interpreted as Mithras and it is likely that one of the annexe buildings was dedicated to him (Metzler et al. 2000: 444; 2003: 267). Some fragments of human skulls are also found at the sanctuary (Metzler 2003: 265). They do not necessarily imply human sacrifice. They may well be part of the ancestor cult or to the head cult which is assumed to be widespread among the 'Celts'. There was clearly a devotion of deities, whether gods or ancestors, at the sanctuary.

⁴⁹ It is not clear to which periods of the sanctuary these objects belong. They are not specified in a publication. The information was found at the museum of Luxembourg.



Figure 34: Statues found at the sanctuary (Metzler et al. 1991: 32, fig. 7).

Thousands of animal bones were found at the sanctuary. A large part of the animal bones were the remains of meat consumption (Metzler et al. 2006a: 209-210). The various hearths on the pavement in period 1 and 2 coincide with the date of the animal bones⁵⁰. Therefore it is likely that food was prepared and consumed near the sanctuary, probably as part of large feasts or ritual ceremonies, for instance. The animals may have been sacrificed at the altar. But animals were not only sacrificed or consumed. The horse bones were probably ritually deposited. Horse bones are rare at the *oppidum* and the Treveri did not eat horse, according to Metzler et al. (2000: 438-9). In conclusion, the sanctuary and courtyard were the venue for various ritual activities, such as major feasts and probably sacrifice and deposition of animals.

The amount of animal bones at the sanctuary implies that butchery happened at an industrial scale. It is therefore likely that the sacred area served as a cattle market and fairground (Metzler et al. 2006a: 210-121; 205, fig. 2). It is not unusual that market or exchange transactions would take place near a sanctuary. It would also explain the presence of stalls at the sanctuary in period 2.

Iron and bronze were worked near the sanctuary. Bronze workshops which specialised in cauldrons were located in front of the sanctuary along the main road in period 2 and maybe even in period 1 (Metzler 2003: 265). In period 3 the bronze workshops were demolished for the construction of the pavement. But metalworking continued as is shown by the iron slag in the filling of some of the hearths (Metzler et al. 2000: 440-441; 2003: 267). It reveals an alternative function for the hearths, besides the preparation of food for consumption. Yet it is not clear if all hearths were used for metalworking. In that case, it would have been a large-scale activity. Metalworking should not necessarily have had a permanent character. It may have happened on a temporary basis or occasionally at specific events, for instance at fairs by

travelling artisans. The location of metalworking at a sanctuary is not surprising. To transform iron and to create new artefacts can be a sacred activity. In Athens, for instance, the temple of Hephaistos, god of metalworking, was built at the foot of the Acropolis at a height overlooking the *agora* (Zschietzschmann 1979: 696). Bronze cauldrons may well have had ritual connotations and may have been used at ritual feasts. In conclusion, bronze working and iron working happened at the sanctuary at least until period 3, or the first half of the first century AD. It may have been related to the function of the sacred area as market and fair ground.

The sanctuary may also have had a political function. The palisade passageways in period 1b were definitely not property boundaries because they were not located in a settlement area. They may well have been voting installations as they resemble the *saepta*, mobile voting structures on the *forum* of Roman cities that were used at important political meetings (Metzler et al. 2006a: 204). Though, the fact that similar structures were also found at the sanctuary of Gournay-sur-Aronde makes the authors doubt about a political function, such as voting (Metzler et al. 2006a: 204). In fact, it is fairly reasonable to hold important political decisions near a sanctuary, under the auspices of a deity. And it would not exclude an assumed economic role of the place either.

Additional ritual activity at the *oppidum* of Titelberg

The unusual deposits of horses at Titelberg all date to the same period of time. In the coin workshop of area 10 (Figure 12; Section 6) the bones of a horse were deposited along with several shattered black vessels. This happened around 31 BC (Thomas et al. 1976: 252). The deposits in the sanctuary dated to the end of the first century BC. The horse bones in the main ditch dated to 80-30 BC. At the end of the first century BC something must have happened that caused people to deposit their horses. Maybe it was meant to symbolise a major change for some people or even for the entire *oppidum* population. It could be related to the arrival of Roman influence in the region. However, that is merely speculation. Horse deposits were very unusual at Titelberg. They happened for some reason all in the first century BC, in the sanctuary as well as in the settlement area.

⁵⁰ Metzler et al. (2006a: 207-208) mention 'Late La Tène' or 'La Tène D' which roughly coincides with period 1 and 2 of the sanctuary.

The skeleton of an infant is found in the same workshop in area 10 (Rowlett et al. 1982: 312). It was deposited around 14 BC head down, in foetal position in a pit with refuse (Rowlett 1982: 309). The pit was filled up when the secondary street was paved (Thomas et al. 1976: 250-251, 256-257). This is not a single case. Under the main road at the *oppidum* of Manching also a child was buried (Rowlett et al. 1982: 309). Maybe child burials were thought to protect a new road and its users.

Conclusion

The east area of the *oppidum* was a large public place of 12 ha where ritual, political and economic activities took place. It was enclosed by a ritual boundary. At the summit of the open space there was a sanctuary with an elaborate courtyard, hearths and annexe buildings. At the sanctuary various ritual activities took place, such as votive deposition, major feasts and probably animal sacrifices. There was also bronze working and iron working at the sanctuary and the area may well have served as cattle market and fair ground. Finally, the sanctuary was presumably the location for major political events, such as voting activities. In Augustan times the ritual ditch was filled in but the east area remained an open space and the sanctuary continued to be used. The continuity shows that the east area had a firmly established value and embedded sanctity. It clearly indicates the significance of Titelberg as a meeting place for communal religious, political and economical activities. Titelberg was not an exception. Four out of five Treveri *oppida* had a sanctuary at their highest peak (Section 2; Metzler 1995: 588).

10. Decline and end of the *oppidum* and/or Roman period: why did it end?

Titelberg was not an abandoned place in the Gallo-Roman period. Human activity is demonstrated at Titelberg until the fourth century AD (Metzler 1995: 572). A survey of what changed and what was kept will help to understand the significance and function of the pre-Roman *oppidum*.

Historical events

As the Treveri region was part of Gaul, the region and its inhabitants appear in Caesar's report '*De bello gallico*'. This means that we have a written account at our disposal on what is considered to be the region of Titelberg. However, caution is called for when interpreting such literature. The Gallic wars of Caesar lasted from 58-52 BC. They have left no traces at the *oppidum* (Metzler et al. 1999: 14). During these wars, in 54 BC, the Treveri are said to have been involved in an uprising against Caesar (Caesar, *De Bello Gallico* V.2). After the Roman conquest the Treveri were appointed '*civitas libera*' (Heinen 1985: 60). In 30/29 BC the Treveri would have revolted against Rome again. This rebellion was quickly put down (Metzler 1995: 571). In the last decade BC the Roman city Augusta Treverorum was founded as capital of the Treveri (Metzler 2003: 268). This is mainly seen as the cause of the decline of the *oppidum* at Titelberg. Two Germanic invasions disrupted the Titelberg area in the 3rd century AD: one in the 260's and one in 275/6 AD (Metzler 2003: 268).

Period	Chronology	General situation	Specific events
La Tène D2b	58-55 BC	Gallic Wars of Caesar	52 BC revolt of the Treveri
La Tène D2b – Gallo-Roman 2, and beyond	55 BC - ...	Roman rule over the region	30/29 BC revolt of the Treveri 10 BC - 1 AD foundation of Augusta Treverorum 260's AD Germanic invasion 275/6 AD Germanic invasion

Table 8: Summary of the main historical events
(based on Metzler et al. 1999: 14; Metzler 2003: 268; Heinen 1985: 60).

Archaeological facts

From middle of first century BC the coin typology changed. In the 50's-40's BC the Arda and Hirtius coin types became the most common coins and they were produced at Titelberg (Figure 16; Section 6; Metzler 1995: 159). Arda was a leader of the Treveri under Caesar and Hirtius was *propraetor* of Gaul in 45 BC. The production of these coins may indicate the establishment of Roman rule, according to Bowman et al. (1996: 522-523).

There was a Roman military camp at the *oppidum* from 29 to 16 BC (Bowman et al. 1996: 522-523). The evidence is convincing. First, Roman military objects, such as weapons and horse gear, are found at the *oppidum*. They are confined to the Gallo-Roman period (Metzler

1995: 348). Second, in the 30s and 20s BC *terra sigillata* appear on the *oppidum* and they disappear after this period (Metzler 1995: 503-505). *Terra sigillata* are found at military camps near the Rhine and they are extremely rare at *oppida*. Metzler concludes the *terra sigillata* probably disappeared together with their customers when the army moved upwards to the Rhine. Third, a large amount of Mediterranean *amphorae* and *campanian* pottery arrived at Titelberg, probably by merchants following the Roman army (Bowman et al. 1996: 522-523). The large rectangular enclosure in the south-east corner of the *oppidum* may well have been a Roman military camp (Figure 5: 7; Metzler et al. 1999: 11), though, there is no information on the chronology of this structure, apart from the fact that the ditch was filled in during the second or first decades BC (Metzler 2003: 266).

The presence of a Roman army would well explain the increased Roman influence on material culture such as the rapid increase of the amount of Roman coins and coin production, the replacement of Gallic *fibulae* by new forms and techniques, and the profound influence of Roman types on native pottery (Metzler et al. 1999: 14). In conclusion, it is highly likely that a Roman army was camped at Titelberg. This means that the *oppidum* had enough space and the qualifications to supply sufficient food and other necessary goods, such as coins, ceramics and *fibulae* for the army. Titelberg must also have had a basic strategic position in the region.

The presence of the Roman army did not cause the abandonment of the *oppidum*. On the contrary, the *oppidum* continued and developed. Metzler et al. (1999: 14) even argue that the third quarter of the first century BC (50 – 25 BC) was the height of life at the *oppidum*. The settlement area had approximately the same size as in the pre-Roman period (Metzler 1995: 95). Yet, the area was reorganised. Two secondary streets intersect the main street: one in excavation area 7 where it cuts the east wall of house 2 (Figure 10: 17), and the other in excavation area 10 (Figure 12: 9). These secondary streets were adapted to the existing street plan (Thomas et al. 1975: 57). The old settlement lay-out was not always respected. Many structures were destroyed by Gallo-Roman buildings, cellars and cisterns (Metzler 1995: 102). The architecture also changed in this period. The traditional post-and-panel construction was combined with timber constructions (Metzler 1995: 97). Many large pits were found, that may have been storage places (Metzler 1995: 97). In conclusion, the same settlement area was maintained in the Gallo-Roman period, but its lay-out and the architecture changed. The people clearly had storage room available.

In the Augustan⁵¹ period there might have been a short decline in the settlement. The Roman cavities were systematically filled in, as well as the enclosure ditch of the east area (Metzler 1995: 98). There are only a few finds from 1st century AD. Metzler (1995: 98) concludes that the population decreased. He states that Titelberg was replaced by the new city of Augusta Treverorum in its significance and its main functions (Metzler 2003: 269). However, the settlement did not end. The settlement area, though smaller than in the La Tène period, was restructured and its streets were ameliorated at the end of the first - beginning of the second century AD (Metzler 1995: 98). There is no evidence for a violent destruction (Metzler 1995: 98). In conclusion, after a possible decline or at least some major changes, there was a smaller settlement in the 1st century AD. Augusta Treverorum may have caused some decline but definitely not the end of the settlement.

The industrial activity continued at the *oppidum* area. The coin workshop in area 10 had its greatest production activity in the Gallo-Roman period; 800 out of 1,179 coin moulds date to this period (Figure 12; Table 3: floor levels 1 and 2; Thomas et al. 1976: 247-249). This situation may partly be caused by the presence of the Roman army and the subsequent higher demand at the *oppidum*. The workshop itself continued to be used without any structural changes (Section 6; Rowlett et al. 1982: 305; Thomas et al. 1975: 56-57; 1976: 56-57; 252). Rowlett et al. (1982: 302) conclude that the workshop must have had a well-established, semi-sacrosanct value. In any case, it may well indicate that the period we call '(Gallo-)Roman' was not felt as a break for the people of Titelberg. In conclusion, coin production remained a significant industrial activity at Titelberg. The Gallo-Roman period was not a break, but rather a continuation of the previous period.

Other industrial activity also continued in the first centuries AD. The Gallo-Roman period saw the continuation of the *fibulae* production. It was also the height of the experiments in Gallic ceramics and the introduction of Belgic pottery (Metzler 1995: 400, 566). Even as late as the third century AD there was a glass workshop and coin workshop at Titelberg. One or two ceramic workshops were built near the bending of the ditch inside the east area (Figure 35; Metzler 1995: 99). In conclusion, industrial activity was significant at Titelberg even long after the *oppidum* period, until the third century AD. This means that the industrial activity

⁵¹ Unfortunately a more exact chronology is not mentioned. The Augustan period lasts from the last third of the first century BC until the beginning of the first century AD (Appendix 1).

was not just transferred to Augusta Treverorum. It may indicate that the latter city did not simply replace the *oppidum*, as is often suggested.

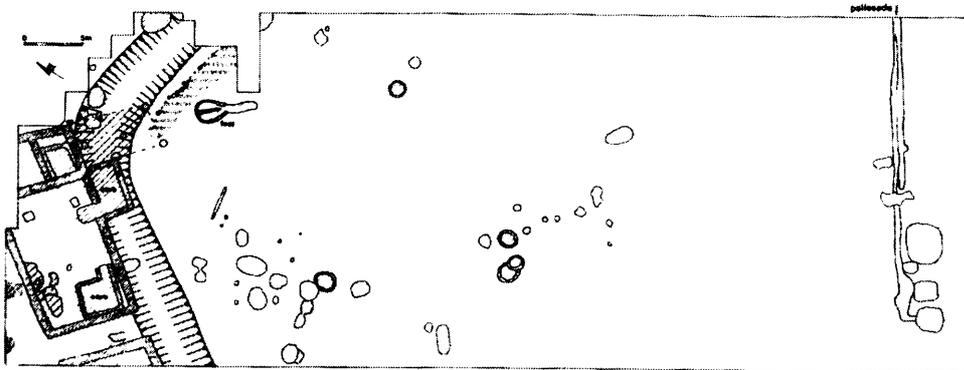


Figure 35: Section of the main ditch and adjacent structure (Metzler et al. 1991: 29, fig. 3).

Titelberg retained its function as a major religious place. The sanctuary was destroyed around the 20's BC. This is considered to coincide with the end of the sacred ditch and the assumed decline of the settlement (previous pages). Metzler et al. (2006a: 206) relate the destruction of the sanctuary with the foundation of Augusta Treverorum (Table 7; Section 10). However, it was not the end of the sacred area. The area remained an open space (Metzler 1995: 96-97) and the sanctuary complex has been rebuilt and enlarged several times. At the end of the 1st century BC it was renovated. By the 2nd century AD it was a proper *fanum* with a monumental courtyard, auxiliary buildings and many statues (Table 7: period 4; Figure 33). The evidence for human activity at the sanctuary, such as animal bones and metal workshops, seems to last until the 1st century AD. The sanctuary of Titelberg was continuously in use for approximately 300 years. The continuity reveals the deeply rooted sanctity of the place.

There were many other sacred places on the Titelberg in the Gallo-Roman period. At the spring near the west wall a temple of Mercury was built which later on became a Roman bath house (Metzler 1995: 35). There was also an altar dedicated to the patron spirit 'Vosugonum', a depiction of a deer that may represent the god Cernunnos, and the bronze head of a bearded man that may represent Jupiter (Metzler 1995: 99; Thomas et al. 1975: 57). These dispersed elements confirm the significance of Titelberg as a sacred place.

In the third century AD all known structures at Titelberg were destroyed. This has been related to Germanic invasions. The few finds from the fourth century AD are all found in the east part of the *oppidum*, in the so-called sacred area (Metzler 1995: 98, 100). A ditch was

laid out round the ruins of the *fanum* and a squared block was placed at the location of its former *cella* (Table 7: period 5). The sacred area may have been the only place that was still visited. A second wave of Germanic invasions destroyed the sanctuary for good and it was left in ruins (Metzler et al. 2000: 444; 2003: 268). However, the sacred connotation of the place remained for centuries. The curative powers of the water sources at Titelberg were acknowledged even in the seventeenth and eighteenth century AD (Metzler 1995: 19). The sacred function of the *oppidum* is the one that holds and stands the time. It was definitely one of the major assets of Titelberg.

Conclusion

Roman influence was felt at Titelberg from the second part of first century BC onwards. It increased dramatically when a Roman garrison was stationed at the *oppidum*, from 29 to 16 BC. The presence of a Roman camp indicates that the *oppidum* had the space and the potential to provide sufficient supplies. The period of the Roman camp did not imply a break in the life of the *oppidum*. The settlement continued and production even flourished. Also after the departure of the Roman army, the Gallo-Roman period was by no means a break, but rather a continuation of the major functions and activities of the *oppidum*. The settlement continued and developed. Industrial production, mainly coin production and metalworking, was carried on at Titelberg until the third century AD. The religious function of the *oppidum* was significant even until the fourth century AD. The sanctuary was enlarged and monumentalised, and additional religious places developed on the Titelberg. The sanctity of the place was still acknowledged in the nineteenth century AD. Religion was definitely one of the major elements for the significance of Titelberg. The new founded city of Augusta Treverorum did not simply replace the *oppidum*. The settlement became slightly smaller. But there was still industrial activity and the religious significance of Titelberg went on for centuries, even after the final destruction of the *oppidum* in the fourth century AD.

11. Conclusion: the significance of the *oppidum* of Titelberg

The site analysis of Titelberg has shown that the traditional urban features for urbanism are largely fulfilled at Titelberg, but that they are not all applicable. Dense and permanent settlement is highly likely, but not proven. The street plan is not preserved apart from the main street. Titelberg was a well-planned settlement. The buildings were highly standardised

and built in rows of regular plots, like modern cities. There may even have been a drainage system. Titelberg has a significant public building: a sanctuary complex in a vast public space, adequate for mass public activities. A clear sense for central planning and monumentality is indicated by the fact that the *muris gallicis* ramparts, main street, elaborate ditch, sanctuary and cemetery were all laid out at the same time. Yet, the sanctuary remained a wooden construction, although limestone is readily available. There was a clear distinction between a public area and a settlement area, but a distinct industrial area is not found. Industrial activity happened everywhere, even in the sacred area. In conclusion, the traditional urban features are to be applied in a flexible way. Each settlement has its own particular character.

Titelberg was not a genuine central place of the region. The *oppidum* may have been a regional market place and fair ground, but a market monopoly is not demonstrated. Titelberg was not a trade centre in control of trade routes because it was not located on a major communication route and regional contacts were predominant. Titelberg did not have a dominant prerogative on industrial activity in the region. There is not enough evidence to conclude that it was a large-scale production centre. Dependence on Mediterranean trade is not proven. The Mediterranean coins date to the Gallo-Roman period. There were apparently not many Mediterranean imports, apart from *amphorae*, and they may well have belonged to the Gallo-Roman period. There is no evidence for social hierarchy. There is a lack of social differentiation in settlement and burial evidence. Titelberg had a rather egalitarian society. Finally, the detailed study of Titelberg reveals its individual and particular character. This challenges the assumed homogeneity of *oppida*. Titelberg stands out because of its large sacred area in the east, its specific settlement lay-out, the abundance of burials and its continuity in Roman times.

The case-study of Titelberg offers a great contribution to our understanding of the function and significance of the *oppidum* in contemporary society. Titelberg principally had a sacred function. The sanctity of the place was materialised in the Late Hallstatt - La Tène period A when monumental ramparts were built to close off the Titelberg promontory that had burials in the east area. In the so-called *oppidum* period this east area was adorned with a large sanctuary complex that would last for centuries and the *oppidum* was surrounded by numerous burials. The ritual activity at Titelberg remained intensive in the Roman period and its sacred significance continued in subsequent centuries, up to the 19th century. However, a

sacred function is not confined to religion. It is all encompassing. A sacred area was the perfect location for significant communal activities. Communal feasts were held near the sanctuary, involving mass consumption. The sacred area probably also served as a market place and fair ground. Significant political activities, such as voting, took place in the sanctuary. Mass gatherings probably happened in the large open space at Titelberg. The presence of iron ores at Titelberg may well have influenced its development. Metalworking was related to the sanctuary, perhaps on occasional basis, and it happened in the whole *oppidum* area.

There must have been some kind of central coordinating body at Titelberg, able to organise settlement planning and major public works, the maintenance of the large monuments, such as the ramparts and sanctuary, and the control of settlement order and standardisation. Still, the society was rather egalitarian. There is high degree of equality in settlement and burial evidence. The burial mounds at some distance from Titelberg are a late development. They may have belonged to individuals with personal status and not necessarily to a ruling elite class. Families lived and worked at the *oppidum*. Yet, the settlement was clearly distinguished from the public area. The people from the vicinity are likely to have been involved in the large-scale public works at their *oppidum*. The regional contacts of Titelberg were much wider than the vicinity as is indicated by contacts with more than 30 tribes.

Titelberg maintained its significance in the Roman period. It was a settlement, a place for industry, a burial place and most of all, a public area with sacred connotations. These functions were not replaced by the new city of Augusta Treverorum. The latter is located at the Mosel. It had more assets for a trade function, but that was probably not the priority of the *oppidum* of Titelberg. Titelberg was a communal area for the region. This is shown again by the fact that Titelberg had the capacity to gather enough supplies for a Roman garrison. The *oppidum* of Titelberg may have lasted from Late Hallstatt –La Tène A until the fourth century AD, although it generally receives the status *oppidum* in La Tène D only.

Appendix 1: Chronology

La Tène D1b	= 120 – 80 BC
La Tène D2a	= 80 – 55 BC (horizon de Clemency)
La Tène D2b	= 55 – 30 BC (horizon de Goebblange-Nospelt C en D)
Gallo-Roman period 1	= 30 – 15 BC (horizon de Goebblange-Nospelt A en B)
Gallo-Roman period 2	= 15 BC – 10/20 AD (horizon of the first Rhine camps)

Table 9: Chronology of Titelberg (Metzler et al. 1999: 343).

The scholars who wrote about Titelberg often used the term ‘Augustan period’. This is the period from the last third of the first century BC until the beginning of the first century AD (Barral et al. 1999: 75). This means that it coincides approximately with Gallo-Roman period 1 and 2.

Appendix 2: Characteristics of Audun-le-Tiche limestone and Haut-Pont limestone

Audun-le-Tiche is a sandy marl unit with rich fossiliferous remains of reef organisms such as corals, sea urchins and brachiopods (Musée National d'Histoire naturelle, Luxembourg. 1996-2007. *Bajocien*. [www.mnhn.lu] <http://www.mnhn.lu/recherche/paleo/coll_lux_bajo.asp> [accessed 7 July 2007]; Felten, R. 2006. *Stratigraphy and paleoenvironment*. <<http://web.mac.com/rolandfelten/iWeb/Bajocian%20Fossils%20of%20Luxembourg/stratigraphy%20and%20paleoenvironment.html>> [accessed 7 July 2007]). Haut-Pont or Hohenbrückner limestone is slightly sandy and is composed of small fragments of solid parts of organisms, such as mussel shells. It has a bright blue colour which becomes rust-coloured when weathered (Projekt WEIKU. *Themenrouten. Industrie- und Eisenbahnpark Fond de Gras, Luxembourg*. <http://weiko-online.de/docs/Themenrouten_FdG.pdf> [accessed 7 July 2007]; p. 6). Both limestone types were used as building material for the ramparts at the Titelberg *oppidum*. The nearest quarry was located at 300 meters from *oppidum*, at Prënzebiërg or Fond-de-Gras.

There is a similar limestone quarry at Rumelange, 15 km from Titelberg (Figure 36). Here the lowest layer is Ottange limestone, covered with Haut-Pont limestone. The second terrace is formed by Lower Coral Limestone. The third terrace is Audun-le-Tiche limestone. The fourth is Nondkeil limestone. The Ottange and Haut-Pont sediments have been deposited in a shallow sea with tidal influence, Lower Coral during a regressive period of the Jurassic sea, and Audun-le-Tiche during a renewed marine transgression. (Felten, R. 2006. *Stratigraphy and paleoenvironment*.)



Figure 36: Picture of the four limestone layers at the quarry near Rumelange (Felten, R. 2006. *Stratigraphy and paleoenvironment*.)

Chapter 6: The *oppidum* of Hrazany, Czech Republic

1. Introduction to the archaeological site

The *oppidum* is named after the modern village of Hrazany. It is not connected to any place name in ancient literature. The *oppidum* area belongs to the villages Hrazany and Ústí, in the province of Středočeský Kraj, Czech Republic. Inside the *oppidum* area there is the present settlement of Hrádnice and a medieval fortress called Červenka (Figure 3). The *oppidum* lies on a promontory at the confluence of the rivers Vltava or Moldau and its tributary Masník (Figure 1, Figure 2). The slopes to the rivers, on east and west side of the *oppidum* are very steep. The *oppidum* area itself is not flat at all. The central area is an undulating valley. In the north there is the Červenka summit of 376 m and in the south the Doubí summit of 432 m (Figure 3). The 2,100 metres of ramparts enclose an area of more than 30 hectares. The external ramparts in the north and the south include another 8-9 hectares (Jansová 1986: 15-16).

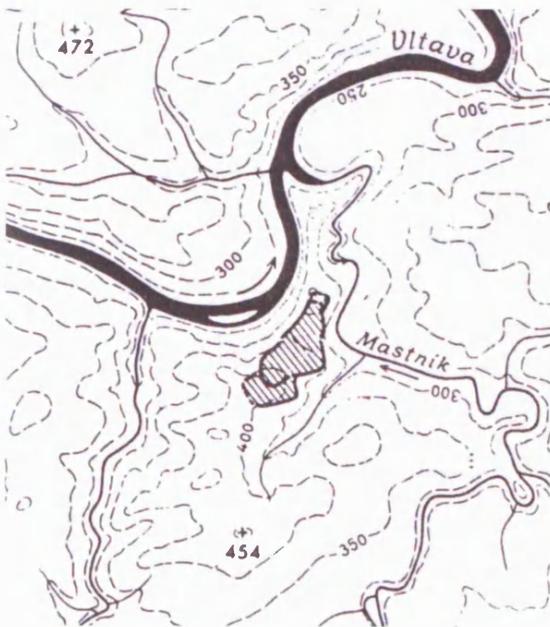


Figure 1: Plan of the geographical region (Jansová 1986: suppl. 2).



Figure 2: Picture of the Hrazany promontory (www.celticeurope.cz).

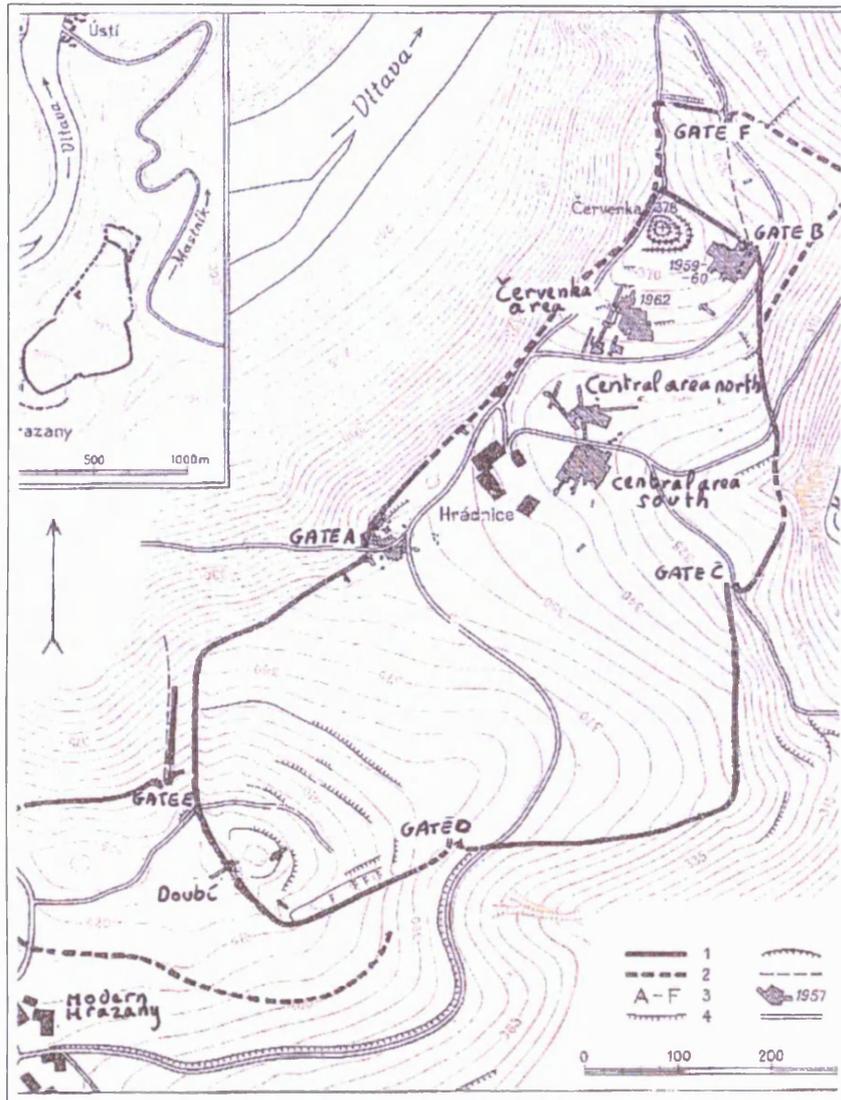


Figure 3: Plan of the *oppidum* Hrazany. 1: remains of the ramparts; 2: presumed ramparts; 3: gates; 4: terraces; 5: medieval fortification Červenka; 6: presumed late La Tène road to gate E; 7: excavation area; 8: current roads. (Jansová 1986: suppl. 1).

The *oppidum* area is relatively well preserved. It did not suffer intensive modern building activities, and deep ploughing started only recently (Jansová 1986: 9). This situation favours stratigraphical observations of the ramparts and settlement objects (Jansová 1986: 10). Only the steep slopes and their covering with trees and bushes hamper excavation (Jansová 1986: 17, 21). On the Červenka slopes, for instance, archaeologists had to cope with a 20 meters difference in height (Jansová 1992: 165). The archaeological condition varies according to the geography. In the central *oppidum* area, a lower valley, the remains are well preserved and stratigraphy is easy to define. However, the original layers are often covered by re-deposited layers from uphill parts of the *oppidum* (Jansová 1988: 13; 1992: 165). In the hilly area the

floor plans are better preserved because the houses were built on terraces, but the sub-layer is very thin because of erosion. As a result many features, such as ditches, are lost in the hilly area. (Jansová 1986: 17, 21; 1992: 165). This situation should be taken into account when interpreting the settlement structures. Otherwise one would tend to assume that enclosures existed in the central area only.

In 1948 the owner of a country house on the area found some late La Tène ceramics. He informed Böhm, head of the archaeological institute, who launched archaeological research in 1951-1952 together with Jansová and Prošek. They demonstrated the existence of an *oppidum* on the site and they mapped out the *oppidum* and its rampart system. Subsequently, from 1953 until 1963, systematic excavations and research were carried out under the lead of Jansová. In the 1953-1954 campaign gate A was excavated. The 1955-1958 excavations concentrated on the central area. The 1959-1960 excavations took place at gate B and its adjacent settlement area. In 1960-1962 the slopes of the Červenka were excavated. In 1962-1963 the ramparts were excavated at Doubí, and the Červenka summit was explored in search for La Tène remains (Jansová 1986: 9-10; Figure 3). In July 1963 the excavation of Hrazany came to an end because Jansová and her team were occupied with the excavations of the *oppidum* Hradiště nad Závistí. The total excavated area of the *oppidum* Hrazany is 5500 m² (Jansová 1986: 10).

The results of the excavations are published in three volumes '*Hrazany. Das keltische Oppidum in Böhmen*' (Jansová 1986, 1988, 1992). Only a few references to Hrazany are found in other publications. Therefore the specific data will often be added with general information on Bohemian *oppida* as a whole.

2. The *oppidum* in its regional context: Why this particular location?

Bohemia is a plateau surrounded by mountain ranges: the Bohemian forests, the Ore Mountains, the Bohemian-Moravian highlands and the Krkonoše. Its mountainous borders make the Bohemian basin a visible and tangible separate entity. It justifies its treatment as a distinct archaeological region. Bohemia has rich deposits of graphite, iron ore, silver, gold, coal and uranium. (http://encarta.msn.com/encyclopedia_761579063/bohemia.html [accessed 16 April 2009])

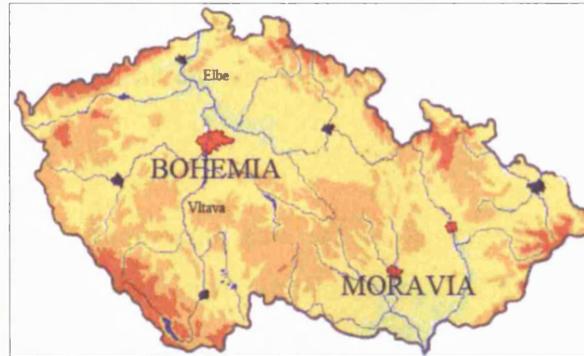


Figure 4: Plan of the Czech Republic
(adapted from www.obec-krestanu.cz/stary/IMG/czechia.png).

The *oppidum* Hrazany is located on a promontory in the granite hills of central Bohemia (Figure 1, 2 and 5: 9). The mountainous character of its landscape is caused by the steep meanders carved out by the Vltava and Mastník. The region is fairly undulating because of the many streams. Wooded hills alternate with rather barren, acidic land.

Natural resources and communication routes

Water was definitely available at Hrazany. The Vltava and the Mastník coursed along the oppidum. Though, the steep slopes must have hampered easy and quick access to the rivers. This problem is solved by the abundance of water sources in the *oppidum* area itself. There were at least five water sources in the central area alone. This is an advantage as springs are rare in *oppida* at higher elevation. In Hrazany there was even a stone well and various wooden channels and troughs (Břeň 1976: 92). The basic requirement for survival and settlement, water supply, is therefore fulfilled.

The *oppidum* Hrazany is built on a rock. Loess soils are attested at some places in the *oppidum* area but the region generally has a loamy sandy soil which is not fertile (Jansová 1992: 12-13, 172). In fact all Bohemian *oppida* are located in the south, in a mountainous region where the climate is harsher and where the soils are worse than in the north. There are no *oppida* in the fertile lowlands of north Bohemia (Figure 5; Drda and Rybová 1995: 123; Salač 2000: 152). Their location is peripheral to the areas of the highest agricultural potential (Cumberpatch 1995: 74). The circumstances were merely sufficient for self-supporting

agriculture (Drda and Rybová 1997: 114-115). In conclusion, agriculture is definitely not a factor for the establishment of the *oppida*.

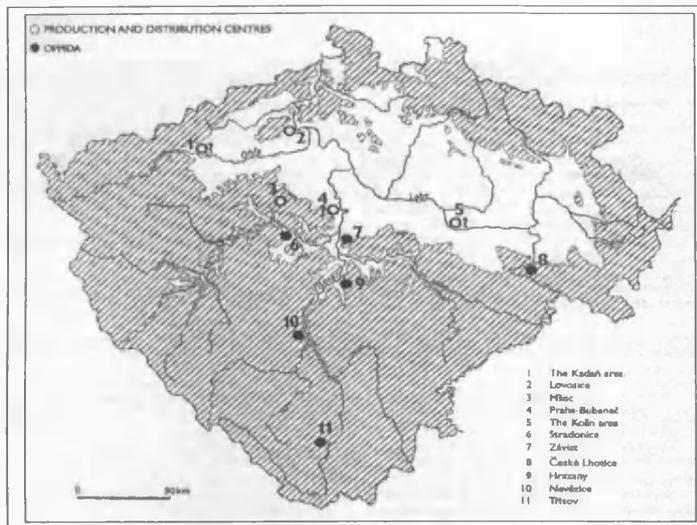


Figure 5: Distribution of *oppida* and *emporia* in Bohemia (Salač 2000: p. 153, fig 2).

Hrazany and the other Bohemian *oppida* are not located in the settlement area of the previous period. In La Tène B/C settlement was concentrated in north Bohemia, according to Drda and Rybová (1995: 89, 101), while the *oppida* occur only in the mountainous south of Bohemia (Figure 6). According to Salač (2000: 152-153) this region has never been as densely and continuously settled like the favourable lowlands in northern Bohemia. He argues that even afterwards, in the Middle Ages, none of the sites of Bohemian *oppida* was permanently occupied. Therefore he concludes that the Bohemian *oppida* were an erroneous evolution and “the weakest link of the La Tène culture”.

Salač creates the impression that *oppida* emerge on illogical locations. However, that might be too far-fetched. One should look at the long-term evolution. In the La Tène A period the burials were concentrated right in the area where, later, the *oppida* emerged (Figure 6). It means at least that there was a significant degree of human activity in the area prior to the *oppida*. It may be tempting to conclude a shift in settlement: in the south in La Tène A, in the north in La Tène B/C and again in the south in La Tène D (Drda and Rybová 1995: 56, 89, 101). That would be a simplified assumption. There were also settlements in the north in La Tène D (Figure 9). Figure 6 rather shows a shift in burial location. Settlement is not clearly evidenced for the periods La Tène A and B/C. It is a very interesting evolution, but it requires

more research on the actual settlement in those periods. One thing is clear; the *oppida* occupied the locations of La Tène A burials. But how to interpret these facts is beyond my present knowledge.

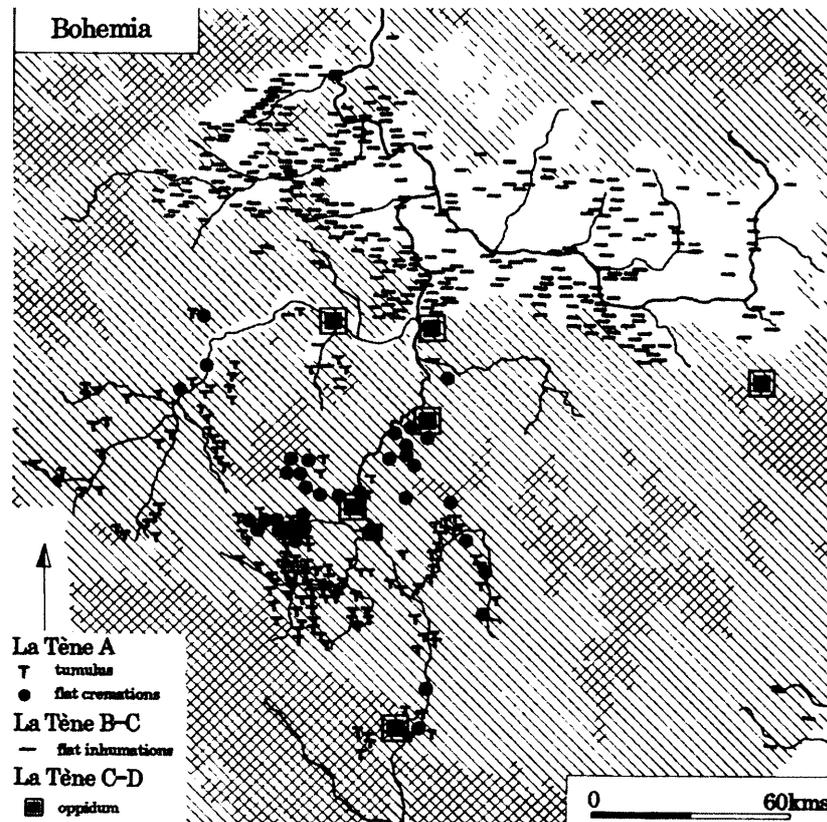


Figure 6: Distribution of *oppida* in relation to burials of La Tène A-C (Collis 1984a: 169, fig. 10).

The location of Hrazany and the Bohemian *oppida* in general is said to be relatively satisfactory for procurement and working of minerals (Salač 2000: 152). Jansová (1992: 171) states that there was iron ore near to Hrazany. However, she mentions that the surface iron for Hrazany was produced in the region south of Příbram, which is in fact at about 30 kilometres away from Hrazany. The information is rather confusing. Szabó (1992: 85) explained that the La Tène exploitation centres are difficult to recover because they are mainly destroyed and drained in medieval times. Hrazany is thought to have had resources, which were however rather limited compared to those of the *oppidum* of Závist (Drda and Rybová 1995: 128; 1997: 115). It is gold procurement which may have been the reason for the foundation of Hrazany, according to Jansová (1992: 171). Hrazany is located in the gold containing Jílover zone and the valley of the Vltava river and its tributaries were the well-supplied area for gold panning (Drda and Rybová 1995: 115). In fact all the Bohemian *oppida* are located in the

Jílovec zone and along the river Vltava (Figure 5). It is tempting to conclude that the exploitation of mineral ores, specifically iron and gold, was the key factor for *oppidum* foundation (e.g. Drda and Rybová 1995: 125).

However, a direct correlation between the resources and the foundation of the Bohemian *oppida* can hardly be proved (Salač 2000: 152). First, iron production centres are not evidenced at all in late La Tène Bohemia. There was not even an increase in iron production in this period, although that is mainly assumed (Salač 1990: 228). Moreover, iron working on the *oppida* was not more intensive than on undefended sites (Cumberpatch 1995: 74). Second, *oppida* are completely lacking in the Ore Mountains in the northwest of Bohemia, which is the main region for mineral ores and iron production (Cumberpatch 1995: 69). These mountains are especially famous for the rich mineral ores such as silver, lead, tin, nickel, copper and iron (www.1911encyclopedia.org/Erzgebirge). The lack of *oppida* is all the more striking since it is one of the best examined La Tène regions (Salač 1990: 224, 227). The procurement of gold can also be questioned since coin production is not evidenced at Hrazany. Jansová (1992: 171) attempts to circumvent this argument by stating that the gold of Hrazany may have been transported to other places. In conclusion, Hrazany and the Bohemian *oppida* are not the outstanding centres for iron production. A direct link between *oppidum* foundation and mineral ores is debated. If Hrazany was indeed significant for gold procurement, sufficient evidence for gold working would be expected.

Hrazany lies on the river Vltava. The Vltava is a large communication route as it originates in the south of Bohemia and flows out in the river Elbe which in turn ends in the North Sea. Though, it must be said that the upper course of the Vltava was difficult to navigate because of many rapids (Jansová 1992: 174). The rapids must have hampered shipping traffic, especially ascending the river. It does not imply that the river was not navigable. Ships simply did not complete the entire course of a river (Salač 1998: 592). At locations where the river's navigability changed the goods had to be transhipped or transferred to other means of transport or carriers. Such transfer and storage places, where the influx of goods was interrupted, were the preferred places for trade and exchange, and thus for market places (Salač 1998: 592, 597-600). Unfortunately there is no available evidence on the location of the rapids in the La Tène period. Therefore a direct link between the foundation of *oppida* and transfer of goods is not evidenced at all. Furthermore, the question remains why *oppida* are lacking along the river Elbe, where instead there are only unfortified *emporia*. It may well be

merely a definitional question (Chapter 1). Control of the long-distance trade route, a common assumption on *oppida*, is hard to suspect in Bohemia given the reciprocal proximity of the *oppida* along the same river. Salač (2000: 154-155) avoids this problem and argues that the *oppida* acted as one interlinked system. But even then, the question remains why such a system of control would be restricted to one part of the river Vltava and why it would not be used along the river Elbe. In conclusion, the Vltava was definitely a major communication route. *Oppida* may well have been transfer and market places, but control of a long-distance trade route is doubtful.

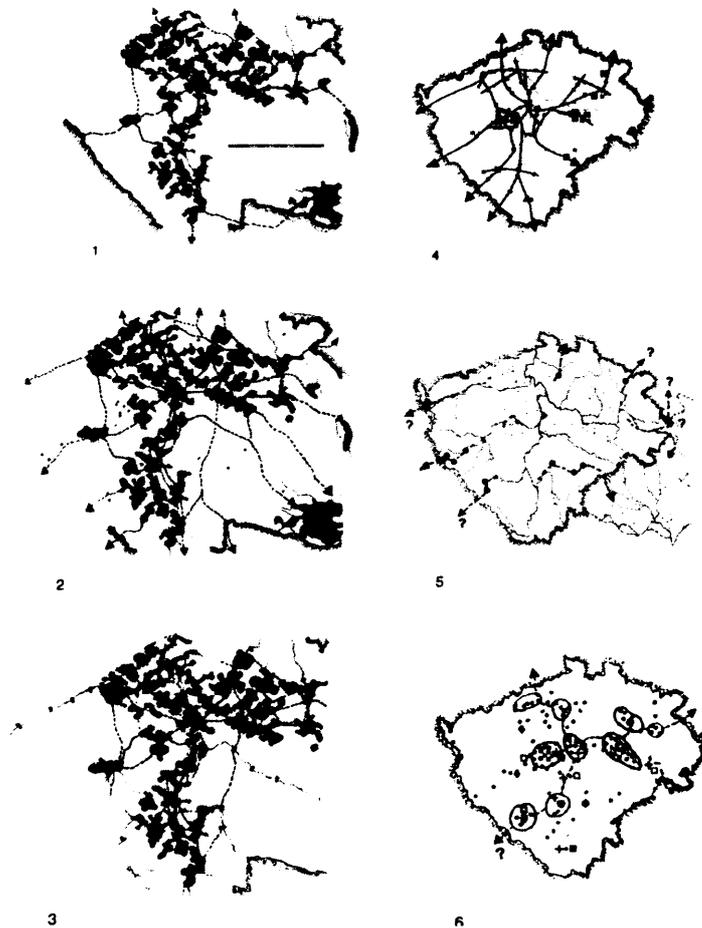


Figure 7: Hypothetical models of La Tène routes in Bohemia.

- 1: land routes according to the shortest distance between the regions with probable junctions.
- 2: land routes according to geographical preference, with maximum outbound routes, out of Bohemia
- 3: water routes with connection to La Tène coins and medieval fords
- 4: linear connection of places where La Tène coins are found
- 5: places where La Tène coins are found and maximum outbound routes, out of Bohemia
- 6: minimum connections of places with concentrations of La Tène coins and imports (Waldhauser 2002: 284, fig 7).

Land routes were complementary to and often replaced water routes. Shipping traffic cannot exist without appropriate *Hinterland* on the river banks (Salač 1998: 595). According to Jansová (1992: 174) there was a road on the hilltops along the Vltava that connected the Bohemian *oppida*. To the south of the *oppidum* Třisov the road would have left the Vltava and headed for Linz and along tributaries of the Danube to the Alps and North-Italy. Near Hrazany there would have been a side-road across the Mastník estuary. However, Jansová did not add a plan or any evidence for the existence of such a road. Salač (2000: 152; 2002: 349) argues that the course of roads is mainly unknown. He even questions the existence of a road across the hilltops to the *oppida*. To him it would indeed seem illogical that a road would leave the river valley and head to an uphill location. Hrazany is located at 170 m above the river level⁵² and reached by steep slopes only. However, his denial may be too far-fetched, since he did acknowledge land routes along the river Elbe in the Ore Mountains (Salač 1998: 583, 590-592). Waldhauser (2002: 285) argues for intensive traffic on the roads because of the spread of large amounts of graphite from south Bohemia. Despite a lack of evidence, he developed some hypothetical working models of communication routes (Figure 7). In conclusion, the existence of land routes is highly likely but they are not clearly identified.

Other settlements and structures

Hrazany is part of a chain of *oppida* along the river Vltava (Figure 5). At 27 km north to Hrazany, or 40 km along the river, lies the *oppidum* of Závist (Figure 5: 7). At 35 km south from Hrazany lies the *oppidum* Nevěsice (Figure 5: 10). Further south is the *oppidum* Třisov (Figure 5: 11). The *oppidum* Stradonice (Figure 5: 6) is connected to Hrazany and the other *oppida* by a tributary of the Vltava. These are the valid Bohemian *oppida* mentioned in all publications (e.g. Drda and Rybová 1995: 125-131; Cumberpatch 1995: 91, fig 2.1; Salač 2000: 153, fig 2). In addition, some other sites such as Ůhošt, Češov and Tabor are also put forward as possible *oppida*, but this is not generally agreed upon (Figure 9: 7-9; Cumberpatch 1995: 73-74). The chronological sequence of the Bohemian *oppida* (Table 1) led to the idea that the *oppida* are part of a series of foundations: first Závist was founded, followed by the secondary foundation Hrazany, in a later phase Stradonice and Nevěsice, and finally Třisov (Drda and Rybová 1997: 117). This foundation model is also based on the common idea among Czech scholars that the *oppida* were founded by immigrants colonising the country

⁵² This is based on the facts that the granite massif near Hrazany is at 400 m above sea level and that the

(e.g. Drda and Rybová 1997: 118). The chronological sequence may be right, but presumed colonisation is an interpretation which is hard to prove.

<i>oppidum</i>	enclosed area	chronology
Závist	100 ha	170s-180s BC
Hrazany	38-9 ha	around 150 BC
Nevěšice	13.05 ha	around 120 BC
Stradonice	90.3 ha	around 120 BC
Třisov	26 ha	Second half 2 nd century BC

Table 1: Size and chronology of the Bohemian *oppida*. The enclosed area represents the *oppidum*'s maximum enclosed size. The chronology starts from the moment the ramparts were built (from Drda and Rybová 1995: 125-131; Drda and Rybová 1997: 117).

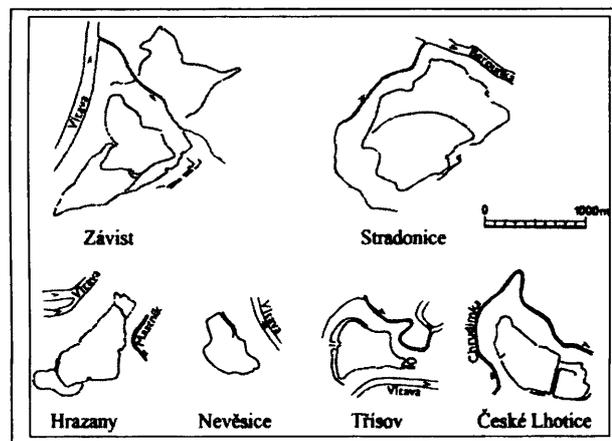
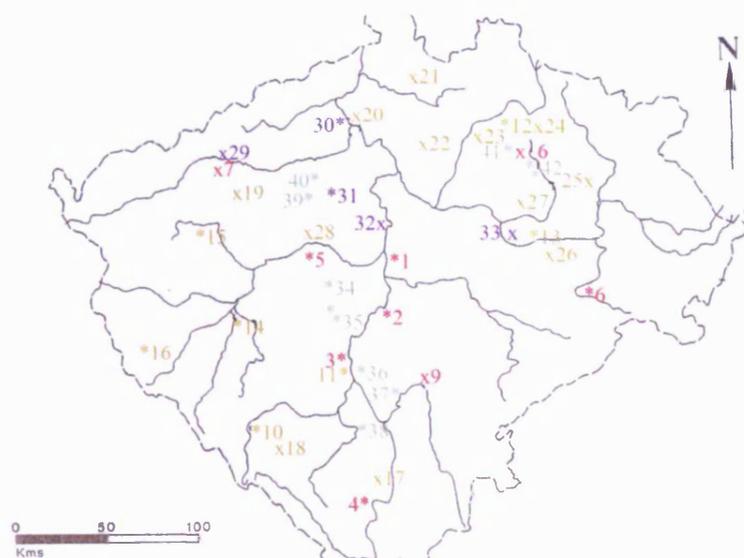


Figure 8: Size and course of the ramparts of the Bohemian *oppida* (from Drda and Rybová 1995: 130).

Hrazany is considered to have strong ties to the neighbouring *oppida* Závist and Nevěšice (Figure 5: 7 and 10; Drda and Rybová 1995: 128). Hrazany and Nevěšice share the same technique and construction of the older ramparts (Drda and Rybová (1997: 115). The link between Hrazany and Závist would be that they both started as a 30-35 ha settlement and that they expanded at the same time. For this reason they are thought to be founded by the same group of colonists (Drda and Rybová 1997: 118-119). This link seems rather far fetched. The three *oppida* are even thought to have a hierarchical relationship. Hrazany is thought to be a dependent client of Závist, and to have in turn Nevěšice as its subsidiary settlement (Jansová 1988: 319; 1992: 174; Drda and Rybova 1997: 119). This is clearly influenced by the common assumption that large sites dominated smaller ones (Figure 8). It is added by other subjective assumptions such as the relative poverty of Hrazany and the hypothesis that Hrazany was “not a production- and trade centre and not a political-administrative and

confluence of Vltava and Mastník was at that time at 230 m. (Jansová 1986: 13)

religious centre like Závist is assumed to be” (Jansová 1988: 319; 1992: 174). The Bohemian *oppida* must surely have been in close contact, but to assume a hierarchical relationship is probably too far-fetched.



*Oppida:

1. Závist
2. Hrazany
3. Nevěsice
4. Třísov
5. Stradonice
6. České Lhotice

X Possible oppida:

7. Ůhošť
8. Češov
9. Tabor

*Castella or hillforts:

10. Sedlo
11. Zvíkov
12. Čertová Ruka
13. Kolo
14. Hradište pod Homolkou
15. Záhořice
16. Svržno

X Possible castella or hillforts:

17. Hradiste – Malovice
18. Obři – Hrad
19. Rubín
20. Libochovany
21. Sloup
22. Hradsko
23. Klamorna
24. Parez
25. Plotiste
26. Spytice
27. Oskobrh
28. Křivoklat

*Emporia or production and distribution centres:

30. Lovosice
31. Mšec

X Possible emporia or production and distribution centres:

29. the Kakán area
32. Praha – Bubeneč
33. the Kolín area

*Viereckschanzen:

34. Skřipel
35. Třebsko 1 and Třebsko 2
36. Kucer
37. Radetice
38. Tešínov
39. Kokrdov
40. Mšecke Žehrovice
41. Markvatice
42. Češov 1 and Češov 2

Figure 9: Distribution of *oppida*, *castella*, *emporia* and *Viereckschanzen* in Bohemia (from Cumberpatch 1995: 91, fig 2.1, with amendments from Salač 2000: 153, fig. 2 and Chytráček and Metlička 2004: 25, plan 7).

The *oppidum* was not the only settlement type in La Tène D Bohemia. As Cumberpatch (1995: 67) remarks “studies of the Late Iron Age of Bohemia have traditionally stressed the role of the *oppida* in Bohemia and Moravia over other aspects of the settled landscape, but in

the last decade it has become possible to look at the situation in a wider context". A comparison with temporary non-*oppidum* sites might shed light on what *oppida* actually are.

The *castella* or hillforts are considered to be a second class of defended sites in addition to *oppida* (Cumberpatch 1995: 73). They are numerous and spread over Bohemia (Figure 9: 10-28). *Castella* are defined as having an area of between 0.3 and 10 ha enclosed by ramparts and located on naturally defensive positions (Cumberpatch 1995: 73). However, the role of the *castella* and the nature of their occupation are still obscure. Even the evidence for such a class of settlements is not as full as it might be (Cumberpatch 1995: 73). The lack of consensus is exemplified by the fact that two out of three *castella* mentioned by Chytráček and Metlička (2004: 25, plan 7 and 29: plan 14), for instance, are omitted by Cumberpatch (1995: 91, fig 2.1).

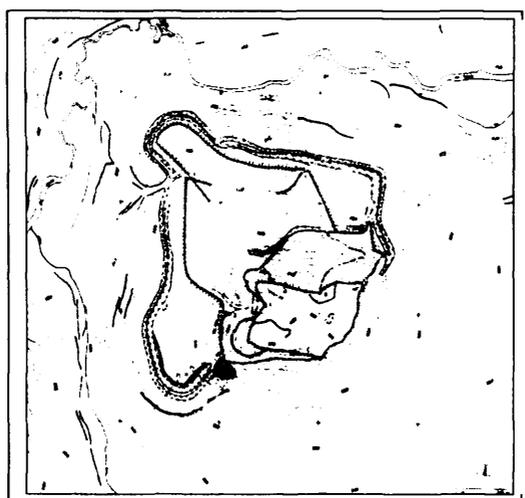


Figure 10: The *castellum* of Záhovice (Chytráček and Metlička 2004: 277, fig 161).

In fact *castella* do resemble the *oppida* in many ways. The *castellum* Záhovice, for instance, is also located on a mountain top about 230 m above a stream and a river that course along the *castellum* in a semi-circular form (Figure 10). Záhovice has a large enclosed area of 115.3 ha which consists of an acropolis and a large partitioned *Vorburg*, like the *oppidum* Hrazany (Figure 3 and 10). The rampart of the acropolis is a *Pfostenschlitz* wall which is the most common rampart type of Bohemia *oppida*, including Hrazany. The course of the ramparts could well fit into the picture of those of *oppida* (Figure 8). Záhovice was occupied in La Tène C-D⁵³, but settlement is evidenced from the Early Bronze Age onwards. It is not certain when

⁵³ The La Tène C-D settlement at Záhovice is evidenced by wheel turned pottery and graphitton ceramics (Chytráček and Metlička 2004: 276-283).

the ramparts were built (Chytráček and Metlička 2004: 276-283). In sum, the difference between *castella* and *oppida* is not really definite.

Another group of settlements is called '*emporia*' (Drda et al. 1994: 87; Drda and Rybová 1995: 123), 'production and trade centres' (Waldhauser 1979: 144), 'production and distribution centres' (Salač 2000: 153) or more broad 'industrial villages and non-agrarian production centres' (Cumberpatch 1995: 69). The most famous site, Lovosice, receives all four titles, depending on the publication it features in. The *emporia* are defined as trading posts and distribution centres along major water communication routes and close to raw material sources (Drda et al. 1994: 87; Drda and Rybová 1995: 123). Such a definition is in fact rather a functional interpretation, apart from the statement on location.

But what is the relationship between *oppida* and *emporia*? Waldhauser (1979: 144) considered *emporia* as the predecessors of the *oppida*. On the other hand, recent interpretations agree that *emporia* and *oppida* developed contemporarily and in parallel (e.g. Drda and Rybová 1995: 123; Cumberpatch 1995: 69-73). The *emporia* are all located along the Elbe/Labe river in northern Bohemia (Figure 5: 1-5; Figure 9: 29-33). Therefore they appear to be the mutually exclusive counterparts of the *oppida* of the south. Yet, the relations or differences between the two classes of sites are not clear at all. Cumberpatch (1995: 69) states that the *emporia* have a considerable degree of heterogeneity. But none of these sites have been more than partially excavated by 1995 (Cumberpatch 1995: 69). Furthermore, the industrial scale of pottery making and stone-working production, the foreign imports, and presumed role in distribution and redistribution of goods, give the *emporia* some features reminiscent of the *oppida* (Drda et al. 1994: 87). In conclusion, apart from the fact that they have no ramparts and that they are located along another river, the differences between *emporia* and *oppida* is not really clear.

Villages and separate houses made up the main settlement pattern (Cumberpatch 1995: 68). There are about 1100 known open settlements in Bohemia from Late Hallstatt until La Tène D. They are considered to have agriculture-based economies (Waldhauser 2002: 273). Yet even the open rural settlements of La Tène D have evidence for economic affluence and industry (Drda et al. 1994: 88). For instance, at only 25 km south of Hrazany there was a contemporary village with metalworking activities. Unfortunately these sites remain largely

unknown. The outstanding sites, *oppida*, *castella* and *emporia*, attract the most attention and thus are therefore more examined and published.

Viereckschanzen are another phenomenon contemporary with the *oppida* (Figure 9: 34-42). The *Viereckschanzen* are also concentrated along the Vltava, but they are not located in the near vicinity of the Bohemian *oppida* (Figure 9). Their function is highly debated and varies from enclosed farmsteads to religious structures (Appendix 3). Drda et al. (1994: 88) consider them “a kind of public meeting place dominated by cultic proceedings”. They argue that *Viereckschanzen* mark the change from an emphasis on the individual in death to a communalising ideology. In the Bohemian context such interpretation is understandable since there were abundant cemeteries in La Tène B/C and they are completely lacking in La Tène D (Figure 6). Cumberpatch (1995: 73) states that the *Viereckschanzen* were meant to impose some form of control over the lowland areas by the people resident in the *oppida*. That is a rather far fetched idea and it rests on the common assumption that the *oppida* would control the region. In sum, *Viereckschanzen* and *oppida* are two prominent landmarks built in the same period and in same region. Yet the relation between *Viereckschanzen* and *oppida* is still not clear.

Conclusion

The *oppidum* Hrazany was a self-supporting settlement in terms of agriculture and water supply. It was not founded on agricultural grounds or because of the exploitation of mineral ores. In fact none of the Bohemian *oppida* is located in an area with fertile land or with rich mineral ores. In fact, all the Bohemian *oppida* are situated along the Vltava and its tributaries. Therefore the functions of this river, whether used to perform gold panning or to enhance transport and communication, must have been a major criterion for *oppidum* foundation. There is no evidence for the control of trade routes by Hrazany or by any other Bohemian *oppidum*, but they may well have been transfer and market places. Land routes are assumed but not identified. Hrazany is closely related to the other *oppida*, and especially to Závist and Nevěsice. The connection with *Viereckschanzen* is not clear. Hrazany may also have exploited gold ores since it is located in the Jílover zone, as at all Bohemian *oppida*, but evidence for gold production is lacking. Hrazany and the Bohemian *oppida* are remarkably located in the settlement area of La Tène A location. This fact demonstrates that *oppida* should not be detached from evolution in previous periods. The *oppida* are quite similar to

castella in form and to *emporia* in function. This fact urges us to refrain from a narrow and static definition of the concept *oppidum*.

3. Settlement history: when did people walk the ground of Hrazany?

Bohemian *oppida* are said to be new foundations on places with no preceding intensive occupation (Salač 2000: 152). We will check this rather radical opinion and have a look at the archaeological evidence of Hrazany.

Before La Tène C

There was settlement activity from the Palaeolithic until the Late Bronze Age. This is attested by objects that are found in the entire Hrazany area, and mainly in its central area (Jansová 1986: 64; 1988: 22-78; 1992: 19). The best represented pre-*oppidum* period is the Late Hallstatt – Early La Tène period. Evidence is found near gate A, in the central area and at Červenka. It ranges from objects such as a quern and ceramics to structures including an oven (Jansová 1986: 25-27; 1988: 35-92; 1992: 19). In this period it was probably a hilltop settlement with dispersed farmsteads. The settlement was presumably unfortified because no remains of ramparts are found (Jansova 1983: 102-107). The occupation was rather dense, with a concentration in the central area (Jansová 1992: 183). It is thought that the inhabitants were related to the inhabitants of Závist because of the similarities in ceramics (Jansová 1983: 109). After that period, Late Hallstatt – Early La Tène, settlement is said to be interrupted (Jansová 1992: 183).

La Tène C-D: foundation and settlement expansion

La Tène C objects from the period before the construction of the ramparts are found in the central area and near gate A (Jansová 1992: 178-179). Hrazany must have started as a hilltop settlement. In La Tène C2 the ramparts were built (Table 2) and from that event onwards the settlement is considered to be an *oppidum* (Drda and Rybová 1995: 127-128; 1997: 118). I would rather include the preceding period in the history of Hrazany. Drda et al. (1994: 87) state that this period was a preparatory stage preceding the formal act of foundation of the

first stable ramparts. Moreover, I even doubt the assumed discontinuity in settlement history. In fact, as there is settlement evidence from La Tène A, or Early La Tène, and again from La Tène C, only La Tène B is supposed to be an interruption.

The way the settlement expanded is not clear. It did not start at the centre and gradually expand towards the ramparts. On the contrary, settlement already reached the ramparts near gate A and B at the time they were built. One structure is even older than the road through gate B (Plan 3). The first settlement may well have been much dispersed. In every excavation area there is evidence for several rebuilding activities, and thus for a long settlement period (Plan 1-6).

Five settlement phases are identified that coincide largely with the evolution of the ramparts. The phasing is based on stratigraphy and on the typology of *fibulae*. Unfortunately not many settlement structures can be dated and allocated to these settlement phases. Most of the structures are dated by relative chronology, which is the chronological relation to one another, or not dated at all (Plan 1-6). Furthermore the five settlement phases are not clearly distinguished. They rather shade into one another (Jansová 1988: 319).

1. Phase 1 (La Tène C2) is the period just before and coinciding with the construction of the oldest rampart. There are settlement structures near gate A and the adjacent part of the central area. This is not surprising as we know that this area was favoured for settlement long before the existence of the *oppidum*.
2. Phase 2 (La Tène C2) is the period of the existence and final destruction of gate A and B and the rampart of Doubí (Jansová 1992: 179). Settlement is attested by houses and huts near gate B, on the Červenka slopes and at Doubí.
3. Phase 3 (before the middle of the 1st century BC) coincides with the middle phase of gate A, and the latest phase of gate B and the rampart at Doubí. Only an enclosed complex near gate B and a house at Červenka can be dated to this period. (Jansová 1992: 180)
4. In phase 4 (second half of 1st century BC?) all later ramparts continue to exist and the whole *oppidum* area was settled. This is shown by the fact that *fibulae* of this phase were found in all excavation area (Jansová 1992: 180). The younger phase of the enclosed complex near gate B dates to this phase (Jansová 1992: 181)

5. Phase 5 (probably until 30-20 BC) was the period of the *oppidum*'s demise. Some structures have a different orientation. Some houses in the central area and at Červenka belong to this phase.

Conclusion

The area was settled from the Paleolithic onwards. This indicates that the location was not as unsettled or unfavourable for settlement as Salač assumes (Section 2). Mainly the Late Hallstatt –La Tène A period is well represented. In La Tène C there was a hilltop settlement. In the same period ramparts were built around the hilltop settlement. From that moment the settlement is considered an *oppidum*. First settlement was situated in the central area and the area near gate A. By the second half of the 1st century BC the whole *oppidum* area was occupied. In sum, the *oppidum* period lasted from La Tène C2 until La Tène D, or from the second half of the second century BC until the end of the first century BC (Jansová 1988: 319). But the settlement presumably started before the construction of the ramparts.

4. The ramparts and gates: defence or symbol?

Ramparts

The ramparts were 2.1 km long and in the south west they were more than 5 metres high. The course of the ramparts, and thus the shape of the settlement, is not an aesthetical creation, but it rather reflects the practical decision to use the given topographical situation (Figure 11), although, wherever possible the ramparts were constructed in a straight line and had perpendicular or obtuse angles. The west part of the ramparts follows the course of the slopes. Near gate A the ramparts are interrupted by the modern road. Further north they are lacking for a length of 500 metres. Maybe there have never been ramparts at this spot because the steep slopes themselves must have been a natural defence. In the north behind the Červenka hill the ramparts bend in a right angle to the east and near gate B they turn to the south. Further south, again, remains are missing for a length of about 400 metres near the steep slope to the river Mastník. West of gate C the rampart heads straight southwards for 250 metres and then, in a right angle, turns west to gate D. Near gate D the course of the rampart is unclear

for about 40 metres and then they head straight to the southwest. The southwest part is interrupted by the modern road. (Jansová 1986: 14-16)

In the north and the south there is an annexe, or *Vorburg*, enclosed by an extra rampart. The southern extension encloses a terrace-like plateau of 5-6 ha. The northern extension enclosed only 3 ha. The course of these ramparts is highly hypothetical, yet it is likely that it followed the pronounced edges of the slope. The chronological relation between these fortifications and the main *oppidum* ramparts is not clear. The chronology is not fully understood and Jansová (1986: 10) suggests investigation of both annexes is required.



Figure 11: The ramparts (1-2); gates (A-F); *oppidum* roads (green and blue); modern roads (8) (from Jansová 1986: suppl. 1).

The examination of the ramparts at Doubí revealed two construction phases. The later ramparts are located 2.35-50 m south of the older wall (Figure 12). The later ramparts were 1.35-1.45 m thick and about 4 m high. The size of the older ramparts is not clear as their stones were reused in the later phase. The first ramparts had vertical posts and large stones at both sides. The inside was filled up with small stones. According to Jansová (1986: 69) this is a *Pfostenschlitz*-rampart that resembles the *Altkönig-Preist*-rampart type, though they seem to be rather different (Appendix 1). The latest ramparts were also *Pfostenschlitz*-ramparts but

there were only vertical posts in the front, in a construction slot, while the back was merely a ramp (Jansová 1986: 69). The examination of the ramparts near gate A, gate B and gate C (Plan 1, Plan 2, Figure 14) confirm the *Pfostenschlitz*-construction with large stone blocks (Figure 13b). The specific *Altkönig-Preist* type is not recovered but this may be due to the bad preservation of the first phase. At Doubí additional constructions are found. In front of the ramparts there was a 2.20-2.30 m wide bank and a 3.5 m wide ditch. Inside the ramparts there was a row of postholes and the charcoal remains of wooden beam. According to Jansová (1986: 59-63) this might be built after the ramparts burned down. However, they are not clearly dated. The bank and ditch enhanced the defensive qualities of the *Pfostenschlitz*-ramparts, as did probably the post structure behind the ramparts. A ditch was not found in front of the gates A and B (Jansová 1986: 36-37, 40).



Figure 12: The rampart at Doubí (Jansová 1986: suppl. 10).

Gates

Six gates are identified at Hrazany: four gates in the main ramparts (Figure 11: A-D) and two in the additional ramparts or *Vorburge* (Figure 11: E-F). The *oppidum* had a gate at each side, or towards each point of the compass. Only gates A, B and C have been examined.

Gate A is situated in the west of the *oppidum* (Figure 11: A). Three different construction phases are identified (Plan1). In every phase gate A is an asymmetrical gate. This reflects a regional tradition (Jansová 1986: 69). It is formed by two obtuse angles of the ramparts. The different phases are located concentric to each other: the later ramparts are always built in front of the older ones. Of the oldest phase (Plan 1: green) the actual gate corner was not found, which might be caused by the reuse of the stones for the later ramparts (Jansová 1986: 24-25). But inside the gates a long slot with postholes forms a straight line that is perpendicular to the ramparts. This might have been the gateway. These palisades along the

road have the same function as the stone flanks of a *Zangentor* gate, according to Jansová (1986: 26-30). The gate burned down in La Tène C2 (Table 2).

Of the middle phase gate A (Plan 1: blue) the entrance is preserved. It is formed by two parallel sides of the rampart. Of the north wings head remain the large façade stones, of the south merely postholes. The gateway between them was up to 6.5 m wide. The perpendicular slot with postholes inside the gates is interpreted as the enclosure of a contemporary settlement complex (Jansová 1986: 27). However, it would suit the tradition of the previous phase if the slot bordered the gateway and road. It runs parallel to the previous slot. A contemporary structure was built directly outside gate A. The gate collapsed soon after its construction (Jansová 1992: 180; Table 2).

In the youngest gate A (Plan 1: red) the stones for the revetment were large rectangular/oblong stone blocks. The south wing of the gate is relatively well preserved. It is the 5 m thick end of the *Pfostenschlitz*-wall with right angles. It has therefore vertical posts and large oblong stones in the revetment, while the inside is filled in with small stones and loam mixture (Jansová 1986: 21). The north wing is destroyed. Therefore the exact width of the entrance is not known (Jansová 1986: 18-19). The entrance of the gate was further southwest than in the previous gates. Inside the gate there were three parallel slots with postholes (Plan 3: red). According to Jansová (1986: 26-30) they are the remains of a tower that closed off the road at a spot where the road hits the *oppidum* plateau. The current road passes through the gate.

Gate B is located in the north of the *oppidum* (Figure 11: B). The gate had only two construction phases (Plan 2). They are built on the same location. In both phases gate B resembles the *Zangentor* gate type (Appendix 1) since it was formed by the inward bending of the ramparts, but it has arched wings instead of right angles (Figure 13). The resulting funnel shape resembles that of other *oppidum* gates and the Late Hallstatt gate D at Závist (Jansová 1986: 69). The *Zangentor*-type is most current gate type in Bohemia (Drda and Rybová 1997: 115). It is the predominant gate type in Central Europe (Appendix 1: Figure 6). Not many remains are left from the oldest phase (Plan 2: green). The gateway is covered by the later gate. It is therefore difficult to reconstruct this phase. Either the older ramparts had the same course as the later, or they had been removed to make the later ramparts. Probably the gateway was 3 m wide (Jansová 1986: 69-70). The gate burned down in La Tène C2 (Table

2). The ramparts of the later phase were located at 2-2.6 m in front of the older ramparts (Plan 2: red). The gateway is 3.5 m long and 6 m wide (Jansová 1986: 69-70). At the angles the gate ramparts were 1.5-2.0 m thick. This later phase was not built with meticulous knowledge since the east wing was erected directly on the sloping ground which caused it to collapse after a fire (Jansová 1986: 36- 37, 40, 41). After the fire the road was simply replaced to the west (Table 2).

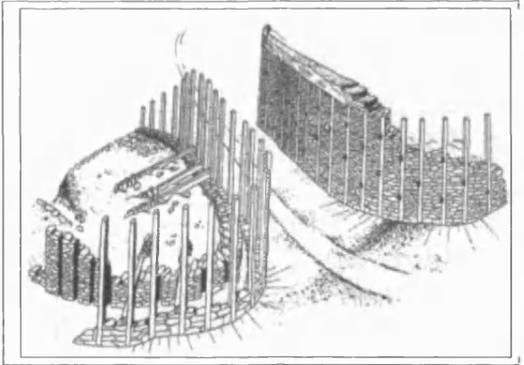


Figure 13a: Reconstruction of gate B (www.museum-pribram.cz).



Figure 13b: Remains of gate B, east wing (Jansová 1986: fig. 90).

There was a wooden structure in the gateway of gate B (Plan 2). Iron nails and a lot of charcoal were found at the place where two opposing postholes of the gateway were remarkably deep and where an additional posthole was erected in the middle of the gateway onto the cart track. All these elements might indicate the presence of a tower, but no other postholes are found to prove such a structure (Jansová 1986: 41, 43). Alternatively a wooden barricade may have blocked the road shortly before the later ramparts were burnt down (Jansová 1986: 43-44). The interpretation of a tower may be too far fetched, an occasional barricade too minimalist. There might equally have been a regular system to close the gates, for instance a wooden door that can be opened or closed. Such systems were described by Caesar (Appendix 1) and are also found in the *oppidum* of Manching (Chapter 4).

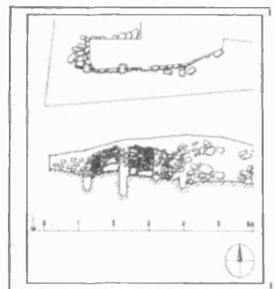


Figure 14: Gate C (Jansová 1986: suppl. 9).

Gate C is a mirror image of gate A, according to Jansová (1986: 59). However, as the plan of gate C (Figure 14) is not very clear, it is hard to get a grip on the lay-out of the gate.

Chronology of ramparts and gates

Phase 1	La Tène C2 or Early 2 nd century BC	Period just before the foundation of the oppidum. La Tène C ceramics are found in the centre and near gate A.
Phase 2	La Tène C2 or Mid 2 nd century BC	Simultaneous construction and existence of the oldest phases of the rampart and gates A and B. They burned down at the end of the 2nd – beginning of the 1st century BC.
Phase 3	App. 100 BC – before 50 BC	Second phase of rampart, gate A and gate B. The collapse of gate A and construction of its latest phase.
Phase 4	App. 50 BC – 30-20 BC?	Continuation of the youngest phases of the ramparts and gates A and B. Fire at gate B. Replacement of its road to the west.
Phase 5	After 30-20 BC	No construction or rebuilding of any rampart or gate.

Table 2: Evolution of the ramparts and gates in relation to the settlement phases (from Jansová 1992: 179-182).

Conclusion

The ramparts of Hrazany are 2.1 km long and they are built along the slopes of the promontory. For these reasons they are well qualified for defence. The shape is the result of a practical rather than aesthetic decision, although efforts were made to create straight lines and nice angles. The defensive function of the ramparts is enhanced by a ditch and a ramp, but not in the area of the gates. Gate A and C are asymmetrical, according to regional traditions. Gate B is a *Zangentor*-gate, which is a common type in Central Europe, though it has a funnel shape like the Hallstatt gate of Závist. In conclusion, the types of ramparts and gates are regular in the region. The gates refer to older traditions, even to the Hallstatt period. It is clear that the ramparts, the basic formal feature of the concept *oppidum*, were not a new or foreign invention. The *oppida* are connected to the wider local settlement history. Gate A probably had a gate tower and gate B had a system to close off the gateway. Both features enhance the defensive capacity of the gates. The ramparts and gates have a clear defensive and impressive function. They probably had a symbolic meaning too, but such meaning is not clear because of the lack of specific finds. The ramparts and gates are built in second half of 2nd century BC and burned down at end of that century. Around 50 BC gate B burned down again. This means they were rebuilt at intervals of 50 years.

5. The inner lay-out of the *oppidum*: urban planning and central organisation?

This section aims to find out if the *oppidum* was a centrally planned and organised urban settlement. I will test the presence and significance of the ‘traditional urban features’ and I will examine additional elements that may reveal the individual characteristics of the *oppidum*.

Settlement density

The total enclosed area of the *oppidum* is 30 ha and there is a further 8-9 hectares in its *Vorburg* extensions (Figure 11; Jansová 1986: 15-16). According to Jansová (1988: 309) the entire *oppidum* area was occupied. She argues that this is attested by the existence of settlement structures close to the ramparts, and by additional parch marks between the central area and gate C. Unfortunately she did not add more specific information, or a plan of the settled area. It is likely that Hrazany was densely settled because this is clear in every excavation area (Plan 1-6), but it not certain that the entire *oppidum* zone was settled. The continuity of settlement is proved by the numerous construction and reconstruction phases in all excavation areas, including those near the gates (Plans 1-6). In conclusion, there was a dense settlement at Hrazany, but it is not known how much of the area this settlement actually covered.

Street plan

The settlement of Hrazany did not develop randomly. It has a clear street plan. The main axes are the streets through gate A, B and C, according to Jansová (1988: 309). Unfortunately she did not add a clear plan of the street plan to support her argument. The only La Tène streets on Jansová’s overall plan of Hrazany (Figure 15) are parts of roads through gate B and gate F. I will reconstruct the *oppidum*’s street plans from the location of the gates and the available data on the separate excavation plans.



Figure 15: Street plan of Hrazany. Green lines: reconstruction of roads, based on description of excavated area by Jansová. Blue lines: hypothetical roads.

The road through gate B is a shallow, 2.50 - 3.50 metres wide depression (Plan 3). Interesting features are the cart ruts in the rocky surface. The cart ruts are 15-20 cm wide, with a width of 1.40 m. They belong to the La Tène period because no medieval objects are found in the street (Jansová 1986: 44). They would imply that gate B was suited for cart traffic and thus that a main road passed through gate B. It is likely that this road continued as the road through the Červenka area (Plan 4; Figure 15). This road is southwest- northeast orientated and perfectly in line with a terrace that heads towards gate B. Furthermore its east end is also 2.40 to 2.50 m wide (Jansová 1992: 32), just like the road through gate B. The west end of the road at Červenka heads towards the ramparts although there is no gate there (Figure 15). However, the current road is equally situated along the ramparts and it is very likely that the ancient road had approximately the same course. In that case, the street would lead from gate B along the Červenka hill to gate A. It is fairly reasonable that a street connects two gates.

The road through gate A forked into a northeast and an east branch (Jansová 1986: 23). The northeast street runs ‘behind the edge of the excavation area’ (Jansová 1986: 23-24). It is therefore likely to be the street to gate B (Figure 15). The course of the east branch is marked by palisades in the oldest phase and middle phase of gate A (Plan 1). The palisades are remarkably straight and head exactly towards gate C (Plan 1; Figure 15). It is tempting to deduce the existence of a street from gate A to gate C, yet, it is not proven archaeologically. This road could lead anywhere, even to gate D just like the current road.

The current road through the central area (Plan 5 and 6; Figure 15) is considered to be a La Tène road to gate C. That road had approximately the same course as the recent road, according to Jansová (1986: 309). It would end in gate A or in the road from gate B to gate A. Gate D is not excavated. Jansová (1986: 15) mentions that there may be a street surrounding Doubí and orientated towards gate D. Maybe the road in question is the black line which follows a terrace (Figure 15), though its direction to the west seems rather pointless. Gate D, as every gate, must have been connected to another gate or a street inside the *oppidum*. It is possible that the road through gate D followed the course of the current road since it is adapted to the relief. It is noteworthy that the street through enclosure I and II heads straight to gate D (Plan 6; Figure 17). Straight roads, such as the hypothetical ones from the central area to gate C and to gate D (Figure 15) do not follow the natural topography like other roads do. Yet they can be a visual aspect in the shaping of the landscape. Walking down the street one would see the gate straight, even though the actual road in between the viewpoint and the gate may not be straight.

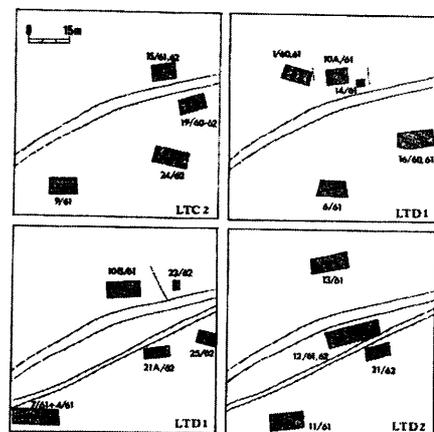


Figure 16: The evolution of the road through Červenka (Drda and Rybová 1997: 92, fig. 23).

The continuity and maintenance of the streets is demonstrated by the examination of the street through Červenka (Figure 16). The course of the street was kept from La Tène C2 to La Tène D2. But the street was not a static fact to deal with. It was adapted to new situations and new needs, for instance the construction of a second street.

In conclusion, the street plan of Hrazany was not orthogonal, but it followed the natural topography. There was a main street between gate A and B along the ramparts and crossing the Červenka area. There was a main street between gate A and C across the central area. There would be a street from gate D around Doubí to an unclear destination, and there may be a street from gate D to the central area along the course of the current road. The final parts of the streets were often orientated straight towards a gate for an aesthetic view. The streets were maintained and if necessary expanded.

Additional settlement structures: palisades, fences, aligned buildings

The clearly structured fences at Hrazany reveal the well-organised partitioning of the settlement by rectangular property plots. In the central area the fences of the enclosures are all perpendicular and all northeast-southeast orientated. This results in a coherent system of parallel square enclosures (Figure 17). The boundaries were respected over time as they were rebuilt several times (Plan 5 and 6). Such lay-out is not confined to the central area. Enclosures are found in all areas. Similar fences of enclosures are found in the areas near gate A and gate B (Plan 1 and 3). At Červenka less enclosure ditches are preserved because of erosion (Jansová 1992: 165). But it is clear from the few remains that the properties are also bordered by parallel, orthogonal fences with ditches (Plan 6). A notable example is the more than 1.30 m long fence that bordered a street (Plan 6). The fences at Červenka are all northsouth-eastwest aligned. The plots at Červenka appear to be less homogeneous than in the central area because they had to adapt to some degree to the shape of the slopes. The *oppidum* of Hrazany is clearly organised in enclosures with rectangular partitioning. Such a regular settlement partitioning appears surprising to the extent that Jansová (1992: 167) argues it must be influenced from Mediterranean examples. However, there is no need to drag in the Mediterranean. The rectangular enclosures are a regional tradition that existed from Late Hallstatt onwards (Jansová 1992: 166).

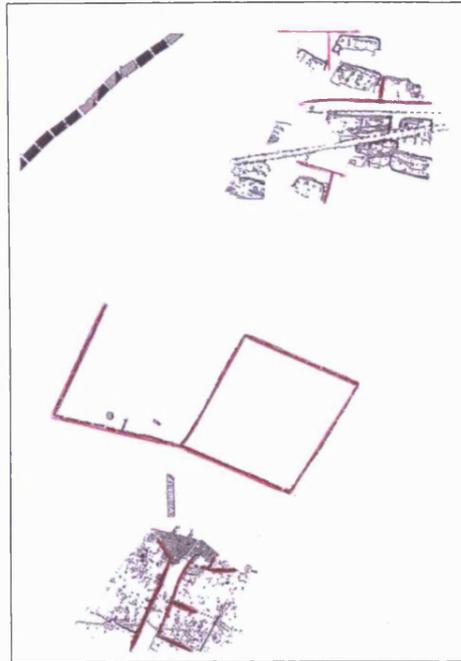


Figure 17: Structures and boundaries in the central and Červenka area (Drda and Rybová 1997: 86, fig 18)

The plots were organised in such a way that the boundaries created a communication network of secondary streets and alleys. This is best exemplified by the straight street formed by the parallel boundary fences of two enclosures in the central area (Plan 6; Figure 17). This street features in many publications and is often used to demonstrate the urban planning of *oppida* (e.g. Fichtl 2000: 28-29). It is five metres wide. This means that two carts can pass one another, according to the dimensions of the cart tracks near gate B. But there is more. Small, flat stones are found on the alley. They may have been used to level the street (Jansová 1988: 43), but they may as well be part of a pavement, especially since the street ends in a paved space (Figure 17: Plan 6). The postholes in the alley have an unclear function and chronology (Plan 6). One posthole in the very centre of the street divides the alley in two lanes where carts could still pass. Some other postholes appear to be lined parallel to the enclosure and recall a roof or shelter. Although the function of the stones and postholes is not clear, the layout of the street clearly demonstrates great care for the organisation of the settlement structures at Hrazany. It is even considered a prototype of urban settlement planning. In conclusion, the *oppidum* Hrazany was well-organised settlement with laid-out plots, streets and secondary communications. This aspect of Hrazany is rather what we would call ‘urban’.

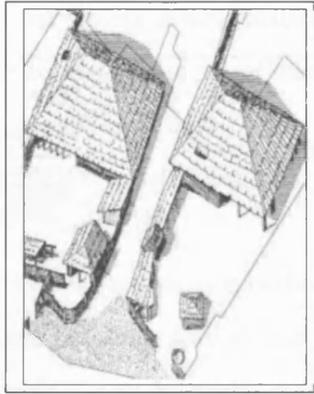


Figure 18: Reconstruction of the open space and the street between enclosures I and II (www.museum-pribram.cz, adapted from Jansová, *dvorcu ve středním uvalu*).

Open spaces

Hrazany has a proper open place with a stone pavement. In fact, it consists of two parts that are published separately, but that are very likely to make up one large paved area. The pavement north of the enclosures I and II with the street (Plan 6; Figure 17) extends to the road to gate C (Plan 6; Figure 18). That pavement had sides of 20-25 metres, but it is not completely excavated (Jansová 1988: 309). It consists of a coherent layer of small and medium size stones (Jansová 1988: 309). This paved place would fit well with the paved place on the other side of the main street, south of the enclosure in the north (Plan 5; Figure 18). This pavement was 20-22 metres wide and it also reached the road to gate C (Jansová 1988: 77). This pavement is not indicated on the excavation plan, but it is on the plan of Drda and Rybová (Figure 17). It was made of large stones (Jansová 1988: 77). In summary, in the central area the main street to gate C crossed a large open place with pavement.

An open space, and especially a paved one, is traditionally considered to be an urban feature. It is a well-defined space as the pavement ends right at borders of the enclosures in the south and at the ditch in front of the enclosures in the north (Plan 5 and 6; Figure 18). Enclosures and the open space appear to be a coherent unity. The paved open space has a quite central position as it is crossed by the main street to gate C and the perpendicular street through the enclosures (Figure 17). According to the definition of Drda and Rybová (1995: 145) paved squares where streets end up and where wells, cisterns and pits are located, are public places. For the paved square of Hrazany only the latter criterion is not fulfilled. There are water sources nearby, but within the enclosures (Plan 5 and 6). They are not public unless the enclosures themselves are public structures, which is not impossible. Jansová (1986: 309)

considers the pavement⁵⁴ a gathering place in the centre of the *oppidum* and compared it to a *forum*, although there is no evidence for market function. The continuity of the pavement is attested by the fact that it was maintained and that a second layer was laid down. Jansová (1988: 42) argues that the first pavement would date to the first plan-like expansion of the settlement in the central area, though it is not even clear when that would be. In conclusion, there was a large paved public square in the centre of the *oppidum*. Some streets crossed the square. It was large enough for gatherings or mass activities. It was bordered by large enclosures that contained various water sources. It is a clear indication of settlement planning and a sense for monumentality.

Standardised buildings

At Hrazany the buildings generally have a standardised form and orientation. They are rectangular or trapezoid and north-south orientated at every excavation area (Plan 1-6; Jansová 1992: 165; 166-167). Sometimes a corner is cut off. This is not exceptional in late La Tène Bohemia. It happened at Hrazany in order to make a way between the rampart and the enclosure or because of a path. Exceptions to these standards result from the topographical and geological situation (Jansová 1988: 309-310). The direction of the bedding of the surface rock also determines the construction of the houses and often causes deviation of the rectangular floor plan (Jansová 1986: 12-13). Yet even at the Červenka hill the structures mainly kept to the standardised orientation (Plan 4).

There are three building types at Hrazany: the *Grubenhäuser*, a partly underground construction (Figure 19: 1); the post structure with wattle and daub walls in a foundation slot; and the building on a terrace, a horizontal surface created by levelling the rocks, often combined with stone foundation walls (Figure 19: 3). The buildings of Hrazany are all made of the same material. The majority of the buildings are post structures with wattle walls and a coat of daub. Some buildings are wooden log house constructions. One hut (Appendix 2: 3/57) of the later phase has burnt clay bricks.

⁵⁴ Jansová (1986: 309) made this comment on the south part of the pavement only. She did not connect it with the other pavement opposite the street.

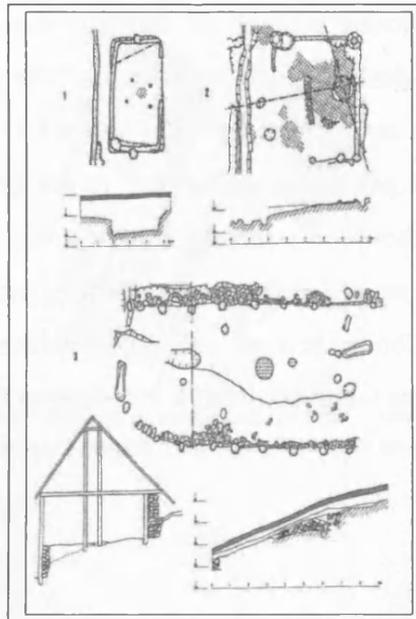


Figure 19: The construction types at Hrazany according to Drda and Rybová (1995: 145).

Jansová (1988: 310-312) makes a distinction between long houses and smaller houses. However, apart from an arbitrary limit in surface area the distinction is not clear. In Hrazany there are no real oblong houses. The buildings keep approximately the same form. For this reason I prefer not to use this distinction.

Very often an additional settlement type is mentioned: a large enclosure with various buildings. Such an enclosure is called farmstead and is regarded as the top of a building hierarchy, to be distinguished from the individual houses (Drda and Rybová 1997: 115). However, in reality the farmstead is not a separate settlement type. It is merely a group of regular buildings, but located in an enclosure. The so-called farmstead will be further discussed in the section on zoning.

In conclusion, the buildings are fairly standardised since there are two main forms, one shared orientation and three buildings types. It is clear that structures were not built at random in Hrazany. Yet, standardisation was not too meticulous because of the undulating topography of the *oppidum* area.

Public buildings

At Hrazany there is no evidence for public buildings. None of the buildings stands out in size, floor plan or architecture. The lack of obvious public buildings does not imply that no public

activities took place at Hrazany. Public buildings are generally hard to identify archaeologically. Public meetings may have been organised in a normal large building, as happened in ancient Athens (Chapter 2) or even in the open air. I would not rule out the possibility that the large enclosures in the central area, which contained the water sources of the *oppidum*, were public buildings.

Zoning

In search for urban features scholars attempt to identify different settlement zones, segregated area for industrial, residential and public activity. In Hrazany a residential zone is assumed to be in the central area, while industrial activity is thought to be situated near the gates and at Červenka (Jansová 1988: 313; Drda and Rybová 1995: 144). This interpretation is mainly based on the assumed difference in building types, especially between enclosures and individual buildings, on the assumed function of the buildings and on the distribution of evidence for industrial activity.

At first glance the central area is indeed occupied by large enclosures, while the Červenka and the gate areas seem to be occupied by individual buildings (Figure 17; Plan 1-6). The large enclosures are interpreted as farmsteads, and farmsteads as elite residences distinct from individual houses (Section 8). As a result the central area is considered a residential zone. However this interpretation is based on two unsustainable assumptions. First, there is no conclusive evidence for the idea that the enclosures are elite residences (Section 8). Second, a closer look at the archaeological record shows that enclosures are not restricted to the central area only. Similar boundary ditches are also recovered near gate A and gate B, and at Červenka (Plan 1-6). At Červenka the remains of enclosures are not abundant (Plan 4) but this may be due to the erosion of the culture layer (Jansová 1992: 165). At the conclusion of the final volume, Jansová (1992: 165-166) acknowledged that regular enclosures are found in the entire *oppidum* area. They do not indicate a specific residential zone.

One might argue that the enclosures in the central area are larger than in the other area. They are indeed quite impressive: some are up to 450 or 480 m² large (Table 3; Figure 17). Unfortunately the enclosures in the other areas are not well preserved and their size can no

longer be retrieved. One exception is enclosure 2 near gate B and it has a considerable size of 352 m². Houses on a hill are always built closer to one another than in a plain.

Excavation area	enclosure	size
Central area:	enclosure I	480 m ²
	enclosure II	450 m ²
	enclosures III	40 metres long
	enclosures IV later phase	40 metres long
	enclosures IV older phase	20 metres long
Near gate B:	enclosure 2	352 m ²

Table 3: Size of the enclosures
(based on Jansová 1988: 310 and plan 3, 5 and 6).

The individual buildings do not reflect a difference between various areas at Hrazany, or between enclosures and apparent individual structures. All three building types occur in every excavation area (Plan 1-6). Even terrace buildings that predominate at Červenka are also found in the enclosures of the central area (e.g. house 2/56; Jansová 1988: 30). At Červenka small additional structures to the houses are not found but this is caused by the thin loess layer, according to Jansová (1992: 170). The types of buildings are not restricted to specific zones.

The *Grubenhäuser* are often considered to have industrial functions and may therefore indicate industrial zoning. However, they are not restricted to the assumed industrial area. On the contrary, they are equally spread in the central area and at Červenka (Figure 20). One might argue that the huts at Hrazany often had hearths and may therefore rather be used as a house. But also in the central area an industrial function cannot be rejected. The concentration of loom weights in hut 3/57,58 points to its function as a weaving workshop (Jansová 1988: 72). Hut 2/56 had a bizarre diagonal slot diagonally inside which is interpreted as work arrangement (Jansová 1988: 30). In conclusion, huts may combine living and working function. They are found in every excavation area and do not indicate a specific industrial zone.

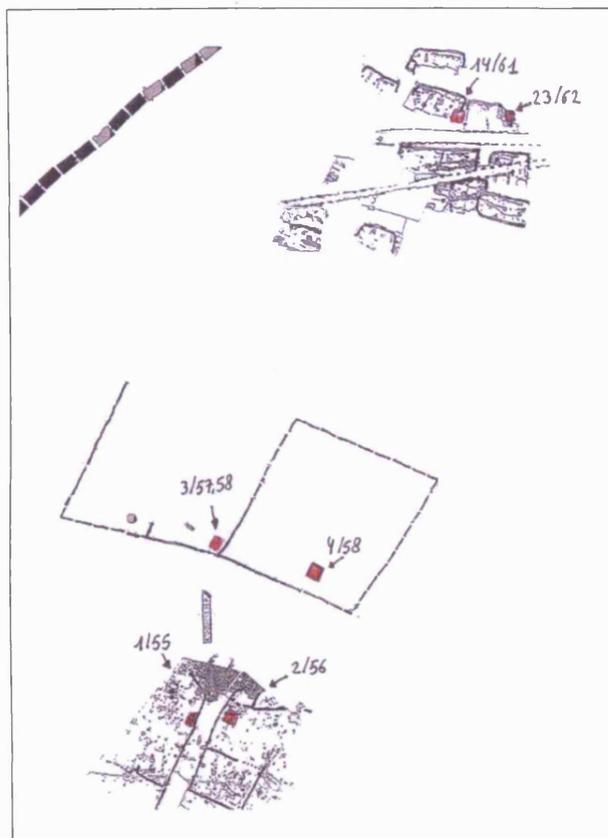


Figure 20: Location of huts in the central area and Červenka (based on plans 4-6 and various descriptions in Jansová 1988 and 1992).

The distribution of objects related to industrial activity is assumed to verify industrial zones near the gates and at Červenka. Various structures near gate A have indeed evidence for metalworking⁵⁵ (Figure 21, Jansová 1986: 31-34). Also near the palisades inside gate A there was iron slag, fragments of a casting crucible and even a tuyère (Figure 21; Jansová 1986: 27). Jansová (1986: 17, 27, 71) concludes there were one or more workshops near the gate including a bronze foundry. All phases of gate B contained plenty of evidence for iron working⁵⁶. The area of enclosure 2/59,60 is clearly a working area (Figure 22). In the remains of the enclosure were found a small bronze casting lump and an iron disc (Jansová 1986: 48) and the structures 2/60B, 4/59,60 and 9/60 are identified as smithies⁵⁷ (Jansová 1992: 172).

⁵⁵ In structure 1/51 a casting crucible, of *Dusenziegel* type was found; in structure 2/52,53 lots of iron objects; in structure 5/54 fragments of iron slag; and in structure 6/54 fragments of iron objects and iron slag. (Jansová 1986: 31, 33).

⁵⁶ The evidence for iron working inside gate B was iron slag, fragments of casting crucibles, small iron fragments, iron chisels and probably fragments of loam of a smith's oven (Jansová 1986: 36, 38-42; 1992: 172).

⁵⁷ House 2/60B contains iron slag, fragments of casting crucibles, many iron slag granules, hammer slag, a tinder and a workbench (Jansová 1986: 54). Outside house 2/60A a smelting oven (Jansová 1986: 50-51). Structure 9/60 had tools and near structure 7/60 iron slag was found (Jansová 1986: 57-58).

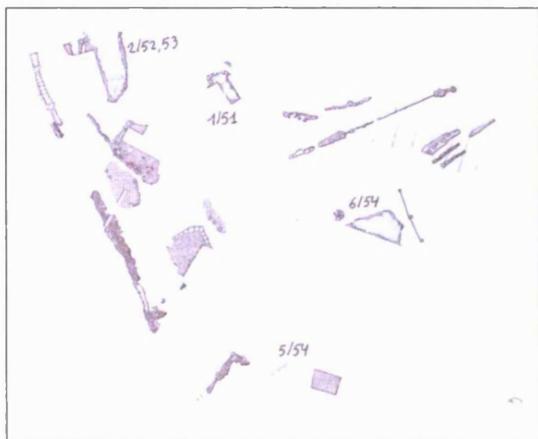


Figure 21: Distribution of forges (blue) and bronze workshops (green) near gate A (based on Plan 1 and various descriptions in Jansová 1986).

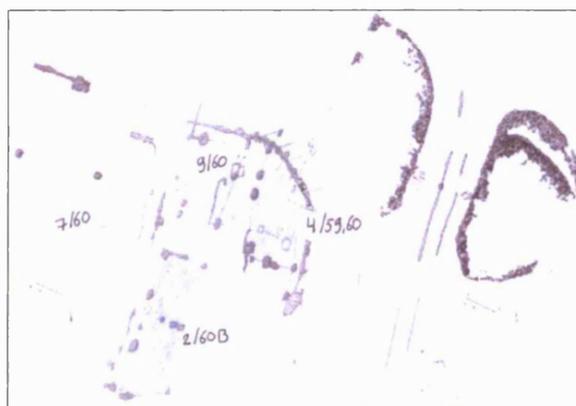


Figure 22: Distribution of forges (blue) and bronze workshops (green) near gate B (based on Plan 3 and various descriptions in Jansová 1986).

At Červenka (Figure 24) house 10/61 was probably that of a worker in precious materials because it had crucibles with traces of red enamel, as well as fragments of a small hammer, a decorated disc and a bronze sheet. The complex of house 15/61,62 with hut 23/62 is probably a smithy as had a wooden workbench, a small anvil, casting crucibles, debris and slag. House 18/60,61 revealed iron slag and the upper edge of an iron smelting oven (Figure 23). House 19/60-62 fragments of casting crucible (Jansová 1992: 171). In house 13/61 a fragment of a hammer was found.



Figure 23: Fragment of the iron smelting oven in house 19/60,61 at Červenka (Jansová 1992: table 260).

Industrial activity is demonstrated in the presumed industrial area, but the central area is not excluded from iron working. On the contrary, iron slag is found in each of the enclosures (Jansová 1988: 22, 34-35, 38, 47, 53, 75, 82, 86). In enclosure III there was even a bronze foundry, as shown by a fragment of bronze wire and a mould (Jansová 1988: 212). House 9/57 in the same enclosure contained iron slag in the hearth (Jansová 1988: 86). Other significant finds are a chisel in enclosure III, a tool and a small pipe in enclosure IV and an iron sheet in enclosure II-A/56.

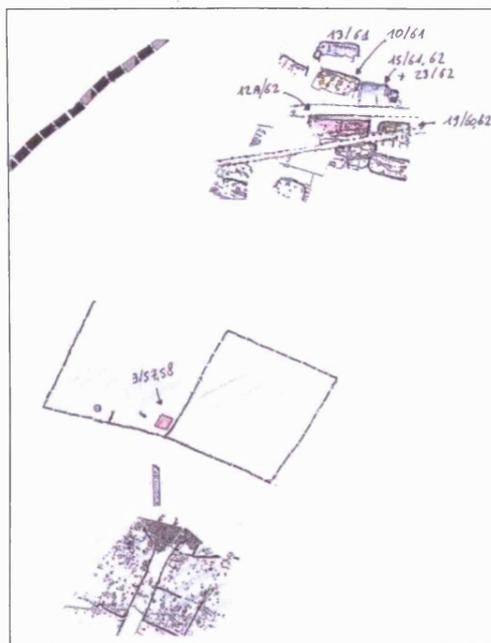


Figure 24: Distribution of iron workshops (blue), bronze workshops (green), goldsmiths (yellow) and weaving workshops (red) in the central area and Červenka (based on various descriptions in Jansová 1988 and 1992).

In conclusion, every excavation area reveals evidence for metal working. Again, a separate industrial zone is not proven. The presumed industrial and residential zones are not demonstrated. There is no significant distribution of objects and building types.

Conclusion

There was a dense and continuous settlement Hrazany. The size of the settled area is not known. The settlement was well-organised. It was partitioned in regular rectangular enclosures. Such urban-like settlement organisation is not Mediterranean, as sometimes argued, rather the continuation of a regional tradition. The buildings were clearly standardised in construction form, type, building material, and orientation. Occasional exceptions to the standards are caused by the topographical and geological situation. The main street plan is not orthogonal but adapted to the topography, which even happened in Mediterranean cities. Secondary communications result from the regular settlement partitioning. Such settlement partitioning was already known in the area since late Hallstatt, even in lowland settlements (Jansová 1992: 166). A neatly structured settlement is not necessarily influenced by the Mediterranean. There are no specific public buildings at Hrazany. Public activities must have taken place at other locations, for instance at the paved public square and perhaps in the

surrounding enclosures. There is no specific functional zoning. The settlement structure, streets and pavement were well kept and maintained. Hrazany is a well-organised settlement with a clear partitioning, street plan and paved public square, all according to its own standards. Public buildings and functional zoning, the other so-called urban features, were apparently not required.

6. Daily life and economic activity: who lived and worked at the *oppidum*?

This chapter examines the socio-economic function of Hrazany. It aims to find out who stayed at the *oppidum* and which economic activities these people performed. It is designed to examine the assumption that *oppida* were central places.

Houses

In most of the buildings at Hrazany there are hearths (Plan 3-6). Huts are generally considered to be workshops (Section 5: zoning): storage place, smith's workshop or weaving workshop. Though, the presence of hearths clearly indicates that huts can equally have a living function, or a combination of living and working function. For instance hut 4/58 in enclosure IV had a workbench and industrial finds but its hearth with animal bones and ceramics is clearly used for preparing food (Jansová 1988: 90). The other buildings are mainly indicated as 'houses' by Jansová, but they may also have an industrial function. For instance, 'house 9/57' in enclosure III has evidence for iron working (Jansová 1988: 86). Huts and other buildings alike were used for living and/or for working.

The most common equipment in all buildings is loom weights and querns. At Červenka alone were found four rubbing stones. It shows that local grain working is commonplace. There was a loom in all large buildings and in many huts. Other home craft evidence includes spindle whorls, sewing needles and awls for leather working (Jansová 1986: 27; 1992: 173). The loom in building 9/57 in enclosure III was exceptionally large. It had 1 metre of loom weights and it probably produced 3 foot wide textiles (Jansová 1988: 311). In conclusion, it is clear that people lived at the *oppidum*. Daily home activities were grain grinding, weaving and sewing. Living and working space were often combined.

Care

Jansová highlights the evidence for one or two surgeons at Hrazany. In house 13/61 Červenka an exceptional surgical instrument was found (Figure 25). The iron chisel and needle which were found in the same house may have had surgical functions as well. Therefore Jansová concludes that a surgeon may have lived here (Jansová 1992: 173). In house 1/51 three small iron instruments were found that may belong to another doctor (Jansová 1992: 173). In conclusion the community of Hrazany had a surgeon in its midst for their medical care.

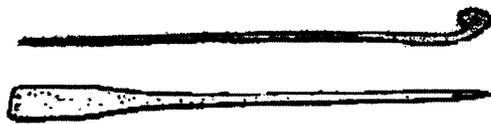


Figure 25: Surgical instrument found in house 13/61 (Jansová 1992: table 201: 20).

Food supply: agriculture and cattle breeding

There must have been pasture land in the close vicinity. Animal bones were found in the following order of importance: pigs, sheep and goats, and –exceptionally- game (Jansová 1992: 172). Unfortunately no more information or data are given on agriculture and cattle breeding. No ploughshares, sickles and other clear agricultural tools were mentioned in the publications. Though, the many querns at Hrazany show that grain was available. Drda and Rybová (1995: 148; 1997: 116) consider agriculture the most important source of subsistence at Bohemian *oppida*. They argue that agriculture happened mainly outside the *oppidum* and was supplemented by home cultivation. People bred livestock and grew cereals, vegetables, plants for colours and even medical herbs (Drda and Rybová 1997: 116). In conclusion, agriculture and cattle breeding must have happened in the vicinity since people managed to live at the *oppidum*. Yet clear evidence is lacking.

Coin production

There is no evidence for the production of coins at Hrazany. This is rather exceptional. Other Bohemian *oppida*, such as Závist and Stradonice, did produce coins (Drda and Rybová 1995: 153). It is all the more surprising because gold must have been largely available. Hrazany is located in the gold containing Jílovec zone and near the gold containing Vltava river (Drda and Rybová 1995: 115). The lack of coin production at Hrazany even leads to questioning the procurement of gold or the statement that gold must have been directly transported away from Hrazany (Jansová 1992: 171). Maybe coin production happened in an area of the *oppidum* that is not excavated yet. This is possible though it would be strange since other metalwork, even goldsmiths and jewellers are already detected. In conclusion, coin production is not attested at Hrazany.

Metalworking

There is plenty of evidence for metalworking at Hrazany. Concentrations of evidence lead to identification of proper workshops: smithies near gate B (Figure 22) and at Červenka (Figure 24), a goldsmith and *emalleur* at Červenka (Figure 24), other less specified workshops near gate A, B, Červenka and the central area (Figure 21, 22, 24). In fact, iron slag is spread over the entire *oppidum* area. It shows that iron working was a significant occupation of the inhabitants of Hrazany. Bronze foundries are located near gate A (Jansová 1986: 71) and in the central area (Jansová 1988: 212). The evidence for the working of gold is generally sparse (Cumberpatch 1995: 71). The intensive metal working happened at Hrazany from the time before or at the construction of the first ramparts, and it continued until the collapse of the *oppidum*, even after the latest ramparts had burned down (Jansová 1992: 172). In conclusion, metalworking was a significant activity at the *oppidum* from its very start. It appears that the inhabitants were mostly artisans, whether full-time or part-time.

Yet the *oppidum* of Hrazany did not have a monopoly on metalworking. Metal smelting and metal working also happened at an open settlement at 25 km from Hrazany, for instance (Jansová 1992: 172). The Bohemian *emporia* also had a considerable metalworking production (Cumberpatch 1995: 69-71).

Glass production

The only clear evidence for glass production at Hrazany is the glass-like slag found in building 20/61 at Červenka (Jansová 1992: 13). A proper glass workshop was not found. Then again, glass workshops are found at none of the Bohemian *oppida* (Drda and Rybová 1995: 153). They are generally hard to recover (Kunkel 1961: 322-324). Still, glass production is said to be concentrated at the *oppida* (Cumberpatch 1995: 73). At Hrazany there was presumably glass production, but detailed data are lacking.

Production of ceramics

There is no clear evidence for the production of ceramics at Hrazany. According to Jansová (1992: 173) the production probably happened in unexcavated areas of the *oppidum* or in the *oppidum's* near vicinity. In fact at the Bohemian *oppida* only a few kilns are found at present. It raises the question of the relationship between the artisans at the *oppida* and those at other settlements (Cumberpatch 1995: 72). Still, Hrazany is considered to be the Bohemian *oppidum* with the most significant ceramic production because there are painted ceramics and large amounts of handmade ceramics, which is rare at Bohemian *oppida* (Drda and Rybová 1997: 116; Drda 2002: 288). The most significant role for Bohemian pottery was for the local market. But some products travelled long distances, for instance Závist pottery is found at Bibracte (Drda and Rybová 1995: 150). In conclusion, production of ceramics is expected to have happened at Hrazany, although clear evidence is lacking.

Woodworking, leather working and weaving

Various tools indicate that woodworking happened at Hrazany (Jansová 1992: 173). Weaving and leather working was part of home craft activities (Jansová 1986: 27; 1992: 173). There was a loom in all large buildings and in many huts at Hrazany. Yet weaving also happened as specialised craft production. The exceptionally large loom in building 9/57 in enclosure III probably produced 3 foot wide textiles (Jansová 1988: 311). Hut 3/57,58 in farmstead IV was a weaving workshop and building 12/61,62 at Červenka was a thread and textile workshop (Figure 24). There is evidence that the inhabitants of Hrazany had a range of different skills. Weaving, and probably woodworking, was a specialised craft activity.

Trade and market function

There is no specific evidence for a market function of Hrazany. Only a few coins are found at Hrazany: three coins spread over the *oppidum*, and some gold coins in two fireplaces at Doubí. This small amount is not an indicator of a proper trade function. Salač (2000: 154-155; 2002: 353-354) argues that the Bohemian *oppida* controlled long-distance trade because they are situated in infertile areas, because they do look urban and do not monopolise economic production. However, trade remained largely regional. Mediterranean imports are virtually lacking at Hrazany and the other Bohemian *oppida* (Section 7). Trade was not important in the economy of Bohemian *oppida* (Drda and Rybová 1997: 116). The comparison of the smith's products of three *oppida* with those of an open settlement shows that the major part of the smith's production from the *oppida* is produced for the *intra muros* market (Drda 2002: 288-289). The ceramic market is restricted to contacts between the Bohemian *oppida* (Drda and Rybová 1995: 150; 1997: 116). Only Graphitton ceramics played a larger role in trade contacts (Drda and Rybová 1997: 116). Other Bohemian export products were the raw materials spropelite, graphite and probably gold (Section 7). In conclusion, the trade activities of Bohemian *oppida* were largely regional, except for the export of Graphitton ceramics and raw materials. A trade and market function of Hrazany can therefore be expected, but there is no clear evidence for such a function.

Conclusion

People clearly lived at Hrazany. Home activities were, apart from cooking, grain grinding, weaving and sewing. Medical care was available at the *oppidum*. It is not clear where the inhabitants obtained their food supply. No clear evidence for agriculture and cattle keeping is found on the *oppidum*. It must have happened in the near vicinity. A large proportion of the inhabitants were involved in metalwork. This is shown by the large amount of evidence throughout the entire *oppidum* area. Some of them were specialists, but considering their quantity some were probably part-time artisans. To a lesser extent there was also weaving production. Glass working and ceramic production are likely to have happened at Hrazany, but clear evidence is lacking. Production happened in proper workshops, but often in a building that combined living and working function. Hrazany was not a regional production centre since production, for example metalworking, was not its prerogative. No coin

production is found at Hrazany, which is rather unusual. Trade is presumed to have happened but there is, again, no clear evidence. Export in raw materials is generally hard to recover archaeologically, but even imports or coins are rare at the *oppidum*. Hrazany appears to be a normal, well-organised settlement with large amount of artisans. There is no evidence for central economic functions.

7. External contacts: the regions Hrazany had contact with

This section examines the regions Hrazany had contacts with, and the nature of those contacts. It questions the assumed control of long-distance routes and dependence on the Mediterranean (Chapter 1).

Not a single Mediterranean *amphora* is found in Hrazany. In fact, there are only very few *amphorae* in the whole of Bohemia (Cumberpatch 1995: 80). The lack of *amphorae* would imply there were no Mediterranean contacts. It thus refutes the commonly assumed importance of the Mediterranean (Chapter 1). This problem is often evaded by the statement that wine was transported to Bohemia in barrels instead of *amphorae* (Drda and Rybová 1995: 156-157). But not only *amphorae* are lacking. In fact, there is no other Mediterranean import at Hrazany apart from one: a small bronze *balsamarium* (Figure 26). It is quite rare. The only parallel is found in the *oppidum* Heidetränk. It is said to have an Etruscan-Italian origin or style, though in Italy no comparable bottle was found (Jansová 1992: 177, 181-182). In conclusion there is no evidence for regular contacts between Hrazany and the Mediterranean.

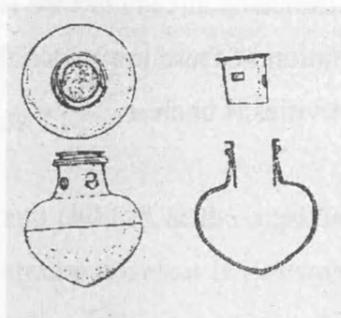


Figure 26: *Balsamarium* (Jansová 1992: table 234).

Mediterranean imports are rare at all Bohemian *oppida*. As Cumberpatch (1995: 80) states the few finds cannot be considered as the basis of an economic system. Long distance trade should not be restricted to irregular contacts with the Mediterranean. Due to the tendency to link the exotic with the valuable the north-south contacts have been largely overestimated to the detriment of the contacts between Central and Western Europe (Cumberpatch 1995: 80).

Various elements indicate relations between Hrazany and the Alpine region. First of all, the technique of foundation walls, typical for Hrazany, was uncommon in Bohemian *oppida*. Therefore Jansová states that the technique is likely to be adopted from the area north and south of the Alps where it was used in the Bronze Age. Etruscan-Italian merchants would have brought it to Bohemia (Jansová 1992: 183-185). Here she drags the Italians into the picture again, as if the inhabitants of Central Europe could not have had exchange contacts themselves. Second, the Hrazany ceramics include imitations of the Fritzen-Sanzeno⁵⁸ ceramics. Finally, particular horseshoes resemble those used along the alpine communication routes and there is a type of iron belt hook that is found in North Tirol. Various examples of objects, technique and influence relate Hrazany with the Alpine region to its southeast.

Hrazany also had regular contacts with the west and east, more specifically with Central Germany, the Kobyly culture (NW Bohemia) and the Przeworsk culture (S. Poland). This is demonstrated by types of ceramics and belt hooks. As they are not the objects of a single and massive influx, Jansová (1992: 190-191) argues for a slow process of exchange with these regions. Contacts should not always be seen as long distance trade. Not only imports are indicators of contact. Bohemian export products were sapropelite, graphite and probably gold. These Bohemian export products reached the *oppidum* of Manching for instance (Chapter 4). Bohemian gold was found in the Rhineland already in Late Hallstatt – Early La Tène (Jansová 1983: 108). A study on the distribution of these raw materials would be very useful. The part Hrazany played in these export activities is unclear.

⁵⁸ Fritzen-Sanzeno is the culture of the Celtic Rhaetia people who lived in the Trentino-Alto region, Italy, the Tyrol and parts of Switzerland, between the 6th and the 1st century BC (www.comune.sanzeno.tn.it).

Conclusion

Hrazany had contacts with the west, the east and the south as far as the Alps. These contacts were rather continuous and resulted in the import of objects, influence in styles and techniques. Hrazany may have exported some typical Bohemian raw materials though this is hard to prove. Hrazany, and the other the Bohemian *oppida*, had no noticeable exchange contacts with the Mediterranean. The common tendency to link the existence and role of *oppida* to Mediterranean trade is therefore proved to be erroneous.

8. Social structure: hierarchy and elite?

In Hrazany numerous hearths are found, as well as household utensils (Section 6). People must have stayed or lived at the *oppidum*. This section aims to find out who stayed here, how many people there were and how they were organised socially.

How many people actually lived at the *oppidum*?

There are no reasonable population estimations of the *oppidum* Hrazany. This may be due to the fact that data for calculations are lacking, such as cemeteries, exact amounts of animal bones etc. Drda and Rybová (1995: 148) make the general statement that the number of inhabitants varies widely among Bohemian *oppida*: from 100-200 inhabitants in Nevěsice to up to 1,000 in Stradonice and in Závist. Given its *oppidum* size, Hrazany is likely to be situated in between those extremes. However, it is not clear what evidence the authors have used to obtain these population numbers. The number of people living at Hrazany is not known.

Who were the inhabitants ?

The proportion of men, women and children at the *oppidum* cannot be estimated because of the lack of human bones. It is therefore not clear if Hrazany was inhabited by entire families, or by another social entity. From the settlement evidence it is clear that many people were artisans (Section 6). They may be part-time or full-time artisans, but at least part of them was specialised, for instance smiths.

Much is written about the ethnicity of the people of Hrazany. Jansová (1992: 183) argues that Hrazany is founded by Boii or middle Bohemian Celts. Evidence for this hypothesis is found in ceramics and architecture. Types of ceramics of Hrazany were also found in inhumation cemeteries. Specific architectural elements, specifically terraces, foundation walls, vertical posts in front, wooden walls and the corridor in house 12/61,62, are all modifications of south Bohemian and foreign techniques (Jansová 1992: 183, 187-190). The technique of foundation walls is thought to derive from the Alps, and it is connected to the historical account that the Boii would have returned to Bohemia after being driven out of the Po-valley in 191 BC. The account of this evidence is blurred and not convincing. I prefer to leave the ethnic question aside as it remains largely hypothetical, and to stick to more neutral interpretations. The smooth typological evolution of the ceramics would indicate that Hrazany was inhabited by the same population during the whole *oppidum* period (Jansová 1992: 183). The people of Hrazany are also said to be related to those of Závist (Drda and Rybová 1997: 118-119).

Social differentiation ?

It is generally assumed that Hrazany had a hierarchical society: a leading class of farmstead owners, and their dependant people some of which were specialised craftsmen (Drda and Rybová 1997: 116; Drda 2002: 287). The elite class lived in the central area while the lower classes lived at Červenka and near the gates (Jansová 1988: 313). This socio-economic hierarchical distinction between a high landowning class and a lower industrial working class is a common, almost traditional assumption, based on modern Western concepts. The arguments are not convincing. On the contrary, they are mainly based on the erroneous assumption that large enclosures were confined to the central area and that they were elite farmsteads. There is no convincing archaeological evidence for such interpretation. The additional arguments concern the size of the houses, the fact that there was a nice microclimate and the *oppidum's* water sources in the central area, and the assumption that industrial production is located near the fringes of the *oppidum* (Jansová 1992: 174).

First of all large enclosures or so-called farmsteads are not confined to the central area. On the contrary, they are the main settlement features throughout the entire *oppidum* area (Section 5). If the enclosures were elite farmsteads the entire *oppidum* population would be elite. The buildings at Hrazany have a standardised form, orientation, construction and building material

(Section 5). No single building stands out as a possible elite house. All building types are found in every excavation area. Even huts, traditionally considered industrial buildings, are found in the central area (Figure 20). Jansová (1988: 310) argues that house 2/56 may belong to a high class family because it had an extra fence which separated it from rest of farmstead. This single external feature is a weak evidence for elite residence. The pavement inside a building may be more of an elite feature. However, a pavement is found in house 9/57, which indeed stands out because of a bronze neck ring, but also in a hut (1/55), the latter being considered as lower class structure. The buildings at Hrazany do not indicate a clear social hierarchy.

The statement that the central area had a ‘nice microclimate’ has never been explained. It is hard to believe that the climate was very different from the rest of the *oppidum* plateau. The water sources of the *oppidum* are indeed all found in the central area. However, not every enclosure or so-called farmstead had water sources. Enclosure I contained four water sources, while enclosure II had none (Plan 5 and 6). If enclosures were to be interpreted as elite ‘farmsteads’, some elite families had no water at all.

Metal working may be concentrated at Červenka and near the gates, but it is found throughout the entire *oppidum*, including in the central area. All the enclosures of the central area have iron slag and other indications for industry, even workshops (Section 6; Appendix 2). Jansová (1988: 313) replies that a dependent lower class was involved with home production and lived in the small houses and huts within the enclosures. This argument is unsustainable. Evidence for iron working is found even in house 9/57 which has traditional indicators for elite inhabitants: pavement, torcs and cauldron (Annex 2). The main assumption that an artisan has a lower social status may be erroneous. In house 21/62 at Červenka iron slag and a workbench are found, as well as the only Mediterranean import of the entire *oppidum*. There are plenty of other examples (Appendix 2). Different jobs might indeed imply economic differences between people, but it is too simplistic to conclude that it reflected a social hierarchy, meaning different social classes. Alternatively all inhabitants may have been involved in metalworking. Very often Jansová has to turn to ‘home production’ when –again- evidence for metalwork is found in a house in the central area.

Finally, the objects that are traditionally attributed to the elite, such as weapons, horse gear, imports and ornaments do not indicate the presence of an elite class in the central area.

Weapons are found in every area. In fact there is only a relatively small amount of weapons at Hrazany. Therefore there is not much evidence for a military elite anyway. Horse gear is found in central area and at Červenka (Table 4). At Červenka also other luxury objects are found. Jansová (1992: 170) admits that the spur and meat fork in house 4/61 must have belonged to a high ranked person, yet she denies the existence of elite at Červenka and argues that this house was located close to the -elite- central area (Jansová 1992: 174). Moreover, the only Mediterranean import in Hrazany is a small bronze *balsamarium* (Figure 26) found in house 21/62, in the central part of the Červenka. In conclusion, there are not many elite objects and they are not concentrated in a particular area. Therefore the existence of an elite class at Hrazany is not proven. The luxury objects are rather equally distributed over the *oppidum* area and its buildings (Table 4). It points to a rather homogeneous society.

Fragments of	Central area	Červenka	Area near gate A, B, Doubí
Sword / sheat	7	1	1
Shield			1
Lance/spear	5	1	2
Arrow points	4	2	
Helmet	1		
Horse bits	2		
Spur		1	
Belt	2	3	
Torc	1		
Small ornaments: pendants, beads, ..	4	2	1
Fork	1	1	
cauldron	2		
Mediterranean import		1	
Wheel pendant	4		
Coin	3		Gold coins

Table 4: Amounts of prestigious objects in every excavation area (according to descriptions of Jansová 1986, 1988 and 1992, summarised in Appendix 2).

Conclusion

Hrazany was inhabited by the one and the same people during the whole *oppidum* period. They may be related to the population of the *oppidum* of Závist. It is assumed they were historical Boii, but there is no clear evidence. It is not known how many people actually lived at Hrazany. A large part of the inhabitants were artisans. Society was thought to be hierarchically stratified and subdivided into a leading class of landowners who lived in the central area and lower class of artisans in the other area. This assumption is proven to be erroneous. Industrial activity also happened in the central area and luxury objects are also

found in the other area. There is no evidence for social hierarchy. In fact, the standardisation of buildings and oppidum lay-out, and the equal distribution of both industrial and luxury objects rather indicate that the society at Hrazany was fairly homogeneous.

9. Religion: communal cult place?

This section aims to examine the role of the *oppidum* as a religious place. The case-studies of Manching and Titelberg (Chapter 4 and 5) showed that religion often played an important role in an *oppidum*. Yet, at Hrazany there is no evidence for sanctuaries, sacred places or ritual activity. This is quite intriguing and calls for investigation.

No sanctuary at the *oppidum*

At Hrazany none of the buildings can be identified as a sanctuary. No particular structure stands out in size, floor plan, architecture or a concentration of 'ritual finds'. Drda and Rybová (1995: 146-147) argue that the Červenka hilltop may have been a sacred space but that it is completely destroyed by the medieval fortress. Their arguments are based on a comparison with the *oppida* of Závist and Třisov. However, this remains speculation. In fact, Závist and Třisov are the only two examples of *oppida* with a sanctuary in Bohemia. Sanctuaries are generally rare in Bohemian *oppida*. Třisov had an octagonal building that could be interpreted as a sanctuary (*A guide to the memorials of technology: Třisov, Dívč í Kámen, Holubov*: www.ckrumlov.cz/uk/region/soucas/t_pruste.htm accessed: 3 July 2009) and Závist had a clear sanctuary, but it dates to La Tène A and not to the traditional *oppidum* period. I will briefly discuss this extraordinary sanctuary anyway, because I do believe in a long-term vision on *oppida*.

Závist is the northernmost Bohemian *oppidum*, located at the confluence of Vtlava and Berounka (Figure 5; Drda and Rybová 1995: 70). It is called an *oppidum* only from the moment the first ramparts were built around 175 BC. In the 6th-4th century BC there was a fortified settlement at the same location (Drda and Rybová 1995: 125-128; Drda et al. 1991: 199-200). This La Tène A settlement at Závist had a remarkable sanctuary at its 'acropolis' (Figure 27a). The sanctuary had four construction phases. The first sanctuary was a *nemeton* with wooden palisade enclosure and aligned square wooden structures (Figure 27a). In a

second phase the *nemeton* was reconstructed and enlarged. In the third phase it was a *temenos* enclosed by a stone wall (Figure 27b). The fourth phase there was a so-called Celtic *temenos*. In the last phase the acropolis was reshaped to a large rectangular plateau in which all previous buildings were buried (Drda and Rybová 1995: 75-81; Drda et al. 1991: 199-200).

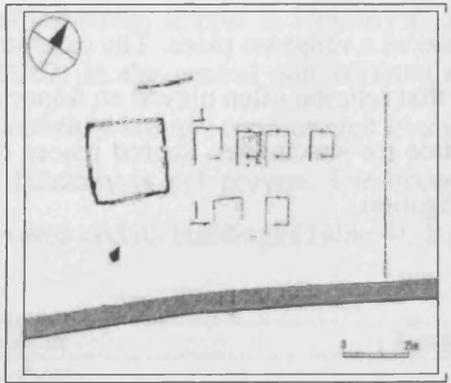


Figure 27a: Early La Tène sanctuary at the acropolis of Závist phase 1 (from Drda and Rybová 1995: 75).

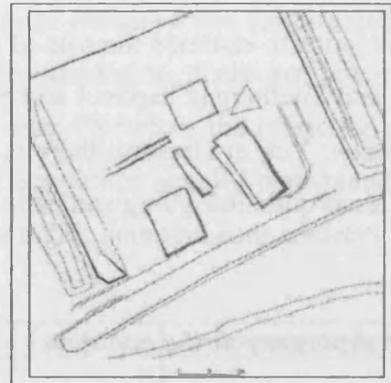


Figure 27b: Early La Tène sanctuary at the acropolis of Závist phase 3 (from Drda and Rybová 1995: 78).

Such a monumental ritual place is generally expected, but not found on an *oppidum*. However, the La Tène A settlement at Závist has many similarities with the traditional *oppidum* (Chapter 1). It was more than 90 ha and had several lines of ramparts (Drda, Motyková and Rybová 1995: 199-200). This settlement would have been accepted as *oppidum* if only it existed in La Tène D. It is significant that the *oppidum* Závist was built on this place where there had been an impressive monumental sanctuary. Even though a continuation of settlement is not demonstrated, there may well have been a continuation of the significance of the place. I would consider the La Tène A settlement with sanctuary as part of the *oppidum's* history. The example of Závist shows that the *oppida* should be examined in their long-term evolution. The question is now why the sanctuary fell out of use in La Tène B/C (cfr. Drda and Rybová 1995: 125-85). The ritual tradition must have changed. By the time the *oppida* emerged ritual devotion in Bohemia was expressed in other ways and at different places.

Other religious places?

Drda and Rybová (1997: 116) state that sacred places are rare in the whole of Bohemia. Only a few sanctuaries, *in casu Viereckschanzen* square enclosures with talus-and-ditch, have been discovered (Drda and Rybová (1995: 163-165). The best example is the old enclosure *nemeton* of Mšecké Žehrovice (Figure 9: 40). In the 3rd century BC it was a wooden enclosure and a human figure was found outside. At the time the *oppida* emerged, the enclosure was transformed to a *Viereckschanze* with a wooden temple (Drda and Rybová 1995: 163). Waldhauser (1979: 147-154) relates the Bohemian *Viereckschanzen* to the Bohemian *oppida*. The *Viereckschanzen* occur in the period of the *oppida* and mainly in the region of the *oppida* (Figure 9). He relates the emergence of *oppida* and *Viereckschanzen* with the end of the flat inhumation burial tradition. It may indicate that the *Viereckschanzen* were used for ritual purposes by the people frequenting the *oppida*. However, it does not clarify ritual activity at the very *oppidum* of Hrazany itself.

In addition, very often natural sites were used as places for religious rituals. Streams, caves and ravines, for instance, are locations where coins were deposited (Drda and Rybová 1995: 163). It is likely that ritual festivals and other activities took place at *oppida* in the open air. That is hard to prove. Objects that are generally considered to have some religious meaning are rare at Hrazany, apart from a few miniature wheels.

Conclusion

No sanctuary is found at the *oppidum* and only very few ritual objects. Maybe there was a sanctuary at the Červenka hilltop that can no longer be recovered. Yet, is it more likely that Hrazany never had a proper sanctuary since sanctuaries are generally lacking at all Bohemian *oppida*. The lack of a sanctuary may indicate that the *oppidum* had no ritual function at all, which was for instance transferred to the *Viereckschanzen*. However, it rather indicates that ritual was expressed in a different way. Ritual activity may have happened in the open air and may not be materialised in the way it can be recovered archaeologically. Such ritual attitudes may be part of the evolution from extreme materialisation, for instance inhumation rite, to no materialisation, for instance no burial rite at all in Bohemia. It parallels the evolution to enclosures (Chapter 1: Section 2), including *Viereckschanzen* and the *oppidum* itself. It also

parallels the evolution from the ritual place of Závist. A ritual function is not evidenced, but not excluded. Hrazany was definitely not a monumental ritual place.

10. Decline and the end of the *oppidum*: Why did it end?

It is generally agreed that the *oppidum* of Hrazany came to an end in the La Tène period. Archaeological evidence confirms the absence of settlement in the Roman period. There are no Roman structures or settlement remains (Jansová 1986: 44). It is only in the Middle Ages that the rubble of the collapsed gate B was cleared and that new structures appeared in the former *oppidum* area (e.g. Jansová 1986: 41, 44). The end of Hrazany seems to be a part of a broader evolution. The Bohemian *oppida* were all deserted. After the La Tène period there is no more evidence of ramparts, coinage or La Tène technology (Drda and Rybová 1995: 171). At Hrazany settlement lasted until the beginning of La Tène D2, probably some time after 30-20 BC (Jansová 1988: 319; 1992: 182). The question is why and how Hrazany, and all the other Bohemian *oppida*, came to an end. The cause of their end may shed light on their reason for existence, on the significance of *oppida* in contemporary society.

Archaeological indications

Gate B witnessed a series of events that may seem to be related to the end of the *oppidum*. A wooden structure, whether a gate door or a barricade, blocked the gateway. This structure was burned down in settlement phase IV, shortly before the gate itself burned down, according to Jansová (1986: 43-44; 1992: 181). Jansová (1986: 71-72) concludes that there must have been a major enemy in the region, since a similar structure blocked a gate at the *oppidum* Závist shortly before the end of that *oppidum*. However, the wooden structure at Hrazany is not very thick and there is no other indication for violent destruction at Hrazany. The end of the examined gate A cannot be fixed due to lack of dated objects. The ramparts at Doubí also burned down. The palisade-like structures at the back (Figure 12; Section 4) might be built afterwards, according to Jansová (1986: 59-63). However, it is not clear if the ramparts of Doubí and gate B burned down at the same time. Furthermore, the circumstances of the fires are unclear. There is no specific evidence for an enemy attack.

The end of gate B was not the end of the *oppidum*. The collapsed gate was not restored, not even cleared away (Jansová 1986: 36; 1992: 182), but the road through gate B was replaced. The efforts to replace the road mean that the road was still in use. Furthermore, settlement also continued after the end of gate B (Jansová 1988: 319). In this final phase, phase V, some settlement structures started to be differently orientated (Jansová 1992: 180). A perfect example is the house of the latest phase in the central area (Plan 6) that also cuts through the existing settlement complexes. The neat internal structure and organisation of the *oppidum* seem to be in decline. Though it should not be exaggerated or generalised. The majority of the late structures followed ‘the old rules’. In all excavation areas there are structures built in the latest phase of that area. A hypothetical exodus of population cannot be clearly recognised. In conclusion, there was still a settlement, a replaced road and maybe a palisade instead of ramparts. The neglect of the gate may indicate that the settlement lost some of its importance or faded out slowly.

The Bohemian *oppida* were all in evolution in the 1st century BC, though it is not clear what exactly happened. In 90-85 BC Nevěsice was abandoned and the ramparts of Závist burned down (Drda and Rybová 1995: 131-132). Stradonice, Hrazany and Třisov all declined and faded out at the same period of time (Drda and Rybová 1995: 170-171). Many theories are invented, such as conflicts between the *oppida*. Though, such interpretations are mere assumptions. We only know that the *oppida* had first signs of weakening in the middle of the 1st century BC and that they did not end in a single and violent way (Jansová 1992: 191; Fichtl 2000: 187).

Interpretations

The end of the *oppidum*, but especially the ‘barricade’ and fire at gate B, appeals to one’s imagination. Many attempts have been made to relate the end of Hrazany and the other Bohemian *oppida* to foreign invasion. Jansová (1986: 71-72; 1992: 191-192), for instance, argues for attacks by Germanic people who arrived from the Elbe region at the end of the 1st century BC: in 35-20 BC the Hermundures and after 9 BC the Germanic allies of Maroboduus. The attacks caused the *oppida* to be disconnected from their hinterland and decline. However, such theories never got beyond the level of speculation. There is no clear link, neither material nor chronological, between the influx of Germanic people and the end of

the *oppida*. Drda and Rybová (1995: 166-171) argued for a progressive peaceful migration of Germanic people. The evidence for this theory would be the Germanic habits such as fibulae, belts and ceramics.

These theories have two elements in common. First, the Germanic people are considered to have caused the end of the *oppida*, whether peacefully or violently. This idea probably stems from the fact that the Germanic people inhabited Bohemia in the period after the *oppida* (Drda and Rybová 1995: 171). Yet, their arrival may simply coincide with or even result from the end of the *oppidum* culture and society. On the other hand, internal instead of external factors might have caused the collapse of the *oppida*. Šalac (2000: 155), for instance, blames the unsuitable location of the *oppida*. It would have caused the breakdown of food supplies and thus of the economic limits at the moment of population growth. This resulted in a large-scale collapse because the *oppida* were all connected in a large inter-*oppidum* network. He states that the Romans and Germanic tribes had nothing to do with it. It is likely that internal circumstances are at least part of the reason why the *oppida* declined. It is interesting to combine both viewpoints. But at present none of these theories have been clearly proven archaeologically.

Conclusion

Towards the end of the *oppidum* period gate B was closed off and it burned down. The ramparts also burned down, though it is not sure that this happened simultaneously. Such fire may seem to point to a dramatic event, but it did not cause the end of the *oppidum*. Settlement continued in every area of Hrazany. In its final phase Hrazany probably had no ramparts but these may have been replaced by a palisade. Gate B was not rebuilt. The inhabitants simply relocated the road. Settlement at Hrazany lasted until some time after 30-20 BC. After that the place was not settled until the middle ages. This means that the inhabitants left the place and that no foreign population came in to inhabit the settlement location. Therefore Hrazany did not end suddenly, it rather faded out slowly. The end is not marked by an invasion of Germanic people or other foreign cultures on the site. The reason for decline may be an internal event or evolution though it is not clear. The ramparts and gate burned down, settlement continued for a while, faded out and somewhere after 30-20 BC Hrazany was deserted. The reasons for such decline are unknown.

11. Conclusion: the significance of the *oppidum* of Hrazany

The *oppidum* of Hrazany does not display all the traditional urban features. A large and dense settlement is not attested at Hrazany. Furthermore there was a lack of functional zoning, public buildings are not found, and the street plan was not orthogonal. However, this is not different from early Mediterranean cities. On the other hand, Hrazany has a public square in the centre which is nicely paved and which is likely to be an architectural unity with the adjacent enclosures. The ramparts and gates were built and restored. The settlement is well-organised; it has standardised buildings and it is divided into regular plots. The settlement partitioning follows indigenous standards. Some traditional urban features are present, some are omitted. Hrazany is composed of a characteristic set of settlement features.

Hrazany was not a central place. Metal production is proven to be largely confined to the own *intra-muros market*. There are no clear indications for a role as trade centre in control of trade routes. The lack of imports and foreign coins clearly indicates that long-distance trade was of minor importance. Trade contacts were rather regional. Political power is generally hard to detect, but at Hrazany even coin production, often considered the mark for political power, was completely absent. Hrazany did not have clear economic or political central functions.

Hrazany was not dependent on Mediterranean trade. On the contrary, Mediterranean coins and imports are virtually lacking. The *oppidum* had contacts with the west, the east, the north and the south as far as the Alps. Hrazany may have exported some typical Bohemian raw material, such as gold, but the distribution of raw material is hard to recover. There is no convincing evidence for social hierarchy. On the contrary, society appears to be rather homogeneous. Finally, the detailed study of Hrazany reveals its individual and particular character. This challenges the assumed homogeneity of *oppida*. Hrazany stands out because it has no sanctuaries or other public buildings, no Mediterranean imports and no coin production. In fact, it lacks the features that would make a settlement more significant than others. But Hrazany does display a settlement organisation with central square and with streets that are an example of the urban *oppidum* (for instance, Figure 18).

The case-study of Hrazany offers a great contribution to our understanding of the function and significance of the *oppidum* in contemporary society. The location of Hrazany is not very convenient for settlement purposes. It is not the most fertile area to start an agricultural

settlement. It is not the area with the richest ores to found an exploitation settlement. There must be another reason for *oppidum* foundation. Hrazany and all the Bohemian *oppida* are located along the river Vltava. The river must be a major factor, whether for communication purposes or for another reason. It is a communication route, but not a very convenient one because of its rapids. Hrazany and all the Bohemian *oppida* are said to be located in a gold producing area and Bohemian gold is known as an export product. But Hrazany is not a proper exploitation settlement, with little evidence for gold winning and even no coin production. People from vicinity may have come to Hrazany to trade and transport gold and other produce. Hrazany may have been a transfer and market place. Hrazany has at least one open place for mass gatherings, and ramparts for possible protection. However, it is hard to understand why they would choose this particular location, a hilltop with steep access to the river. Furthermore, Hrazany did not economically benefit in the way that the settlement became a dominant place. It did not start to produce its own coins and to establish long-distance trade relations. Hrazany did not have a clearly hierarchical society. It remained a rather normal settlement largely of artisans.

The river may have been significant for other than purely economic reasons. Rivers are often worshipped in Bohemia. The Vltava had extra appeal since it contained gold and it is carved deep into the rocks, which creates beautiful places with marvellous views (Figure 2). However, this is rather speculation. Hrazany is located on the place of a former Late Hallstatt – Early La Tène site. Moreover many settlement features, such as the older remains, or the construction of the gates and the way the settlement was partitioned links the *oppidum* with the Hallstatt period. At a certain moment large stone ramparts were built around the existing settlement. They are result of a large-scale and well-organised cooperation of many people. The construction of ramparts is an act of common identity. The place is now materially confirmed to be of communal significance. At about the same period other places were adorned with enclosures: the other *oppida* and Viereckschanzen. The emergence of ramparts, or *oppida*, is part of a wave of enclosures, an evolution from the individual to the communal. It is accompanied by the evolution from ritual materialisation to the immaterial. No more burials, no sanctuaries, no sacred artefacts. The *oppidum* is in itself a communal monument. The area is very large and probably not entirely settled. It may well be the place for mass gatherings and communal activities, including refuge in times of danger. The settlement at Hrazany did not exercise central functions over the region. It was rather the focal point for region. The location in agriculturally poor land and no easy access is sufficiently neutral to

allow meeting and communal activities. It was well-organised but not led by hierarchical elite. It even had characteristics that recall ancient cities, such as its ramparts, planned lay-out and paved public place.

In conclusion, Hrazany is not the traditional central place with authority over the region. Hrazany was the focal area where the inhabitants of the region performed their communal economic, political, social and maybe even religious activities. It became a proper settlement where many artisans came to live.

Hrazany also contributes to the conceptual thinking about *oppida*. It is clearly linked with Late Hallstatt – Early La Tène and therefore questions the narrow chronological definition of *oppida*. It shows that *oppida* should be understood as part of a longer settlement evolution. The similarity between Bohemian *oppida* and their ‘counterparts’, *castella* and *emporia*, calls for a reinterpretation of the formal definition of *oppida*.

Appendix 1: Chronology

Settlement phase 1	Early 2 nd century BC (La Tène C2)
Settlement phase 2	Mid 2 nd century BC (La Tène C2)
Settlement phase 3	Around 100 BC – before 50 BC
Settlement phase 4	Around 50 BC – 30-20 BC?
Settlement phase 5	After 30-20 BC

Chronology based on Jansová (1988: 319; 1992: 179, 180-181).

Appendix 2: List of all excavated structures at the oppidum of Hrazany

This list aims to be a guide through the site, to better understand the structures mentioned randomly in the chapters. It briefly describes the structures and their potential special features, as well as their chronology. ‘Absolute chronology’ refers to the five settlement phases of the oppidum, ‘relative chronology’ to the chronological relation between the different structures within an excavation area. The structures are listed according to the excavation area. Description is based on Jansová 1986; 1988; 1992: description and figures)

Structure	size	walls	floor	objects	Special feature	interpretation	Absolute chronology	Relative chronology
Gate A								
Gate				iron slag				Latest phase
Near palisade inside				iron and bronze objects, iron slag, casting crucible, <i>düsenziegel</i> , tuyère		bronze casting (Jansová 1986: 71)		
				spindle whorls				
1/51				<i>düsen</i> fragment		/	phase I	
2/52,53			terrace oven?	many iron objects		long house		Latest phase
3/52,53					over the earliest wall	/		Middle/later
4/54			probably oven	chisel, iron hook		/		Middle phase
5/54			<i>Grubenhäus?</i>	iron slag	/	hut?	phase I	Latest phase
6/54			terrace	iron slag, iron objects	specific pit outside: shape of horseshoe	house?		
Gate B								
East side				iron slag, <i>düsenziegeln</i> , iron hook, quern				Latest phase

East side				iron fragment, coal, chisel, iron slag, <i>düsenziegel</i>		=> long term iron working near gate (Jansová 1986: 71)		Earliest phase
West side			loam oven?	chisel, iron slag, <i>düsenziegel</i> , iron hook	probably smith's oven			Latest phase
In front				spindle whorl, chisel, iron slag, <i>düsenziegel</i>				
Enclosure 2/59,60:	22 x 16 m			bronze casting lump, iron disc, iron slag		enclosure	phase III	
SW area			no structures			agricultural area?		
2/60A	5.5 x 3.5 m	wattle	in rocks outside: melting oven	iron hook, knife		house		
2/60B		wattle	Oven	iron slag, iron slag granules, hammer slag, <i>düsenziegel</i> , knife	work bench (slot with beam)	smith's workshop	MLT (Kostrewski DE <i>fibula</i>)	
4/59,60	9 x 5 m	log house	fireplace		beyond enclosure of 2/59, 60; the fireplace is under roofed entrance	house and smithy	phase II	Earlier than 2/59,60
9/60				tools, fragment of a shield	tools	smithy		
Enclosure in south?:								
5/60					part of enclosure?	/		
Enclosure in west?:								
7/60				bronze pendant, iron objects, iron slag, iron sword fragment		/	phase II	
8/60					part of 4/59,60?	/		Earlier than 2/59,60 and contemporary to 4/59,60?
Enclosure in east?:								Earlier than the road

1/59	5 x 3.5 m?	wattle	fireplace		double wall in west workbench?			
NE of 1/59			2 fireplaces					
Others:								
3/60						stone quarry		
Gate C								
12/51						/		
Doubí								
1/51,52			oven	iron objects, gold coins			phase II	
2/51,52								
3/63						house		
4/57,58 Plan?						hut	phase II-III	
Others:			fire places; oven	pottery; quern; iron objects, gold coins!	Gold coins			
Central area								
Enclosure I/55,56								
Source1				Glass bead				
Source2				belt, whetstone				
Source 3				iron objects, bronze object, bronze needle case				
Source 4				iron slag				
1/55		log house stone foundation	<i>Grubenhau</i> floor with stones and loam	iron fragments	might have an annexe with economic function	hut with economic function		
N of 1/55			loam oven	lance		economic function		
W of 1/55			loam oven	weaving weights, iron slag, scissor blade				
1/56	8 x 8		square fireplaces (phases)	grind stone	minimum 2 phases	house		

N of 1/56			fireplace			house		
W of 1/56			loam floor			/		
Other area				arrow, quern				
Enclosure II/56								
2/56		stone foundation, timber	<i>Grubenhaus</i> oven	iron objects, bronze ring, iron hooks, hand mill	covered front room; inside diagonal partition: work arrangement ?	hut		Earlier than ditch XIV?
S of 2/56			ground-floor post structure					probably contemporary to 2/56
NE of 2/56		wattle posts						various phases
H 2/56	7.5 x 7.5	stone foundation	square terrace, oven inside, oven outside	weapons: arrow head, lance, sword; miniature wheel	with extension to west? different phases	house		
N of h 2/56				iron slag				
W of h 2/56			oven	miniature wheel				
Enclosure II-A/56				iron sheet, whetstone				
3/56			platform	sword sheath, sword deco, whetstone, iron slag	different orientation, weapons, economic extension (granary)?	house	phase V	Latest phase
W of 3/56				sheet metal				
4/56						house		
5/56				quern		house		Earliest phase
Enclosure III/57,58	15 are							
4/58		Wattle, stone foundation	Oven for cooking	key, hearth shovel	workbench annexe with fireplaces/oven	hut		Earliest phase
E of 4/58		wattle		small chisel; spinning ring				Earliest phase

E of 4/58		foundat ion wall		sword sheat	different orientation			Latest phase
9/57	4.5 x 6		rectangular stone pavement, fire place	30 loom weights; <i>durchschlag</i> ; iron slag: chain: bronze torc; cauldron; glass bead; whetstones	loom near the entrance, shelf for ceramics, large loom: probably 1 m of loom weights and 3ft wide textiles	house of high rank?		Latest phase
N of 9/57			Oven			? post holes	probably contemporary with T 4/58, earlier than house 9	
N of 9/57	4 x 3.5			large pots (graph 70 cm high)	substructure and large storage pit			
N area				chisel, spindle whorls, sword sheath, belt hook				
Enclosure III-A/58				small pipe				
Enclosure IV/57,58								
Near W fence		wattle		Iron objects, sword sheat, lance, iron slag				later
				Iron object, clay pipe, quern, horse bit				middle
E fence				iron slag, iron object, lance, sword sheat, querns				
In SE area		large posts	many hearths, loam floor	quern, iron object, lance				Earliest phase
Near W fence			oven (cavity III)			probably extension of enclosure IV		
Cavity I/57			oven	iron objects, arrow		oven		
Source 5				horse bit, weaving weight, knife,				

				bronze object, belt hook				
Hearth 2, 3, 5			oven					
3/57,58	Latest phase: 5.2 x 2.9	- early: wood, ditch, - late: loam tiles	- early: carved in rock; fireplace - late: fireplace, oven	- early: loom weights - late: loom weights, pottery, iron objects	Two phases - early: basement (0.6 x 0.5) with large pots	Hut: probably weaving workshop and living space	phase II La Tène C2	earliest phase
N of 3/57, 58			hearth			house?, rather economical structure		
W of 3/57, 58				early: Iron slag, miniature wheel, glass bead, iron objects - middle: fork, miniature wheel, silver coin, cauldron chain	Coin			
6/57			no clear structure	silver coin	coin	house		Latest phase
7/58			no reconstruction possible	loom weights; iron knife	cavity	house		Middle phase
8/58			rectangular hearth			house	La Tène C2	Earliest phase
Enclosure IVA/57				loom weights				
Červenka								
1/60,62	5 m long	log house, stone foundation	trapezoid terrace, hearth in east room (oven?)	loom, iron tool	two rooms, bank	house		
2/60						probably house		
2A/60,61			hearth			probably house		

3/61						fence		
3A/61						fence		
4/61	7.5 x 5-6			belt hook, iron nail, iron spur, meat fork	probably loam bank spur	house		
5/61		In the rocks	terrace			house		
5A/61						fence		
6/61		Log house, Founda tion wall	hearth?	glass bead, fragments of quern, rubbing stone, 2 iron arrows, chisel	platform inside (in rocks, leveled wit stones and loam), bank	house		
7/61		wood				/		
8/61		wattle				/		
9/61	8 X 4 m	Founda tion wall?	hearth	lock	bank	house		Earlier than 6/61, 11/61
10/61			terrace, floor plan not sure	enameller crucible; hammer, iron tool; bronze disc, bronze sheet, bucket fragment	two phases	house with metalwork (in both phases): probably goldsmith		
-10A/61			oven			house		Earlier than 10B/61
-10B/61	+ 6 m to east		no hearth		loam bank; two rooms	house		Later than 10A/61
11/61			fireplace	Iron slag		house		Later than 4/61, 9/61
12/61,62	about 100 m ² (5.5 x 19.5 m)	Wattle, stone foundat ion	terrace - W: no fire - E: hearth?	Toiletries, ring, iron chisel, spindle whorl, knife, sewing needles, pointed iron, semi-finished products, rubbing stone E: small bronze lump	two rooms, corridor? E: loam bank,	house and thread and textile workshop	phase V	
12A/62				spinning reel?		hut		Earlier than 12/61, 62

13/61	13.5 m long terrace	in rocks, wattle	trapezoid terrace, hearth, oven?	surgical instrument, hammer; chisel, needle, quern, rubbing stone	two rows of posts inside, two rooms, loam bank	house	phase V	Later than 20/61 (short duration)
14/61						hut		Earlier than 10B/61 Contemporary with 10A/61?
15/61,62		wattle, foundation wall	hearth	Iron belt hook	work bench (4 x 1.2-1.4 m), is complex with 23/62	house together with 23/62 (metal production)		Later than 10A+61. Earlier than 10B/61
16/60,61	about 10 x 6.5 m	Log house, Foundation wall	hearth	Belt hook	bank	house	phase II	
17/61								
18/60,61		Log house? Foundation wall	Hearth, smelting oven	iron slag, pottery, rubbing stone, <i>düsenziegel</i> , key	location between gate B and Červenka, loam bank, platform with loam and iron slag	house of people involved in iron industry near gate B		
19/60-62	6 m long	Log house, foundation wall	Terrace, hearth	Spindle whorl, quern, heart shovel; iron slag, awls, 2 smelting crucibles, casting crucible	bank (10 cm high)	house with home iron production (Jansová 1992: 35)	phase III	Earlier than 12/61,62
20/61	2.45 x 2.8	log house?	<i>Grubenhaus</i> No hearth	Glass-like slag, iron knife		hut		Earlier than 13/61 (short duration)
21/62		log	2 hearths	Iron slag, rubbing stone, quern, awl, small chisel, <i>balsamarium</i>	loam bank with beam (workbench), bank in rocks	house with home iron production and working grain	phase V	Latest structure south of road
21A/62						house	phase II	Earlier than 21/62
22/62						fence		
23/62	3.5 x 2	log house	hearth	Anvil, lots of hammer slag, hammerscale,	complex with 15/61,62, work bench	hut: smithy		Later than 10A/61 Earlier than

				iron slag, glass pendant, sword sheat, belt hook, lock, <i>düsenziegel</i> - outside: whet stone, iron hammer slag				10B/61
24/62			hearth			/		
25/62		Founda tion wall	hearth	/		/		
25A/62		loam	platform		different orientation			Can be medieval
26/62			<i>Grubenhaus</i>	whetstone		probably hut		

Appendix 3: Plans of the excavation area

Plan 1: Area near gate A

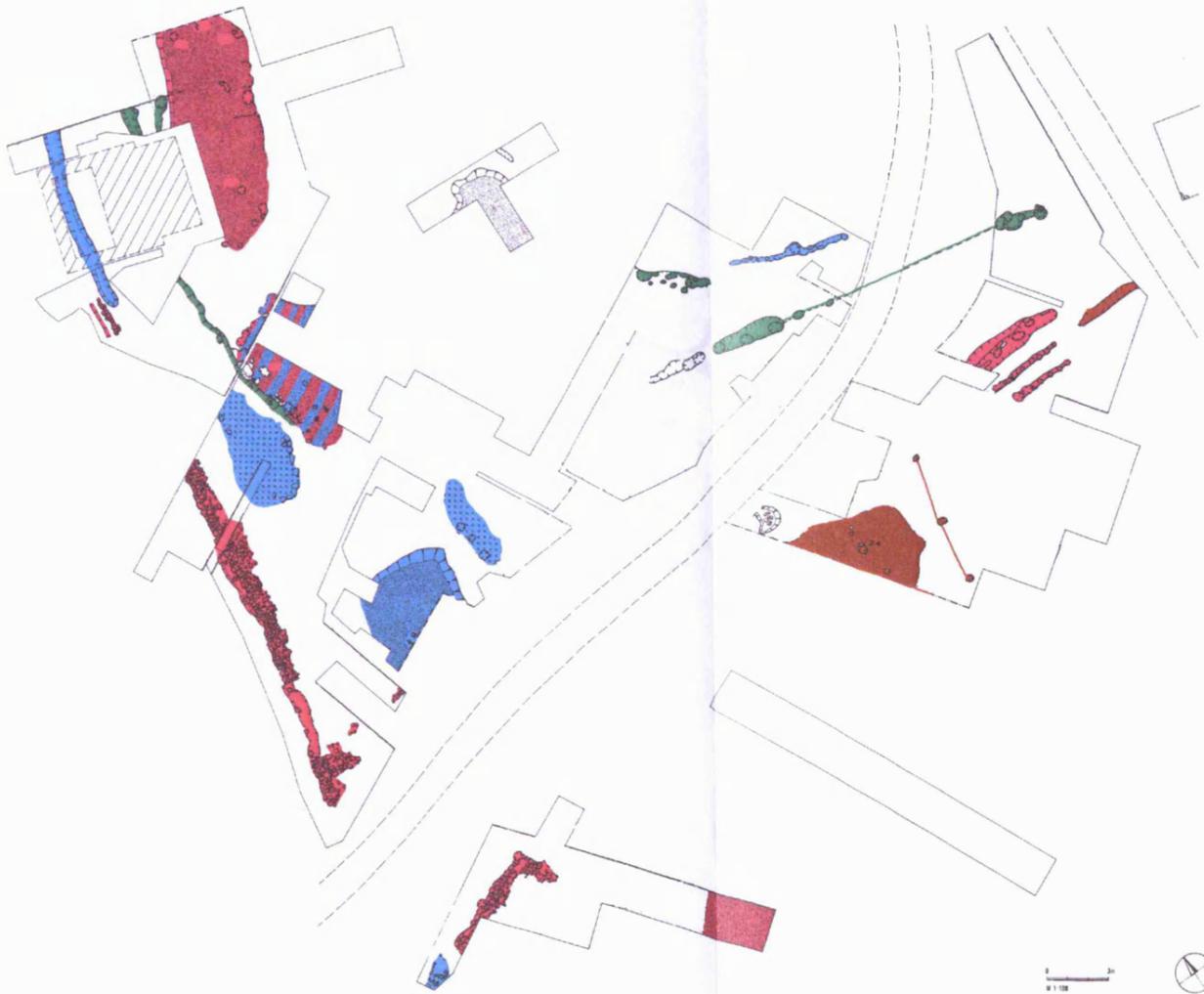
Plan 2: Gate B

Plan 3: Area near gate B

Plan 4: Červenka

Plan 5: North part of the central area

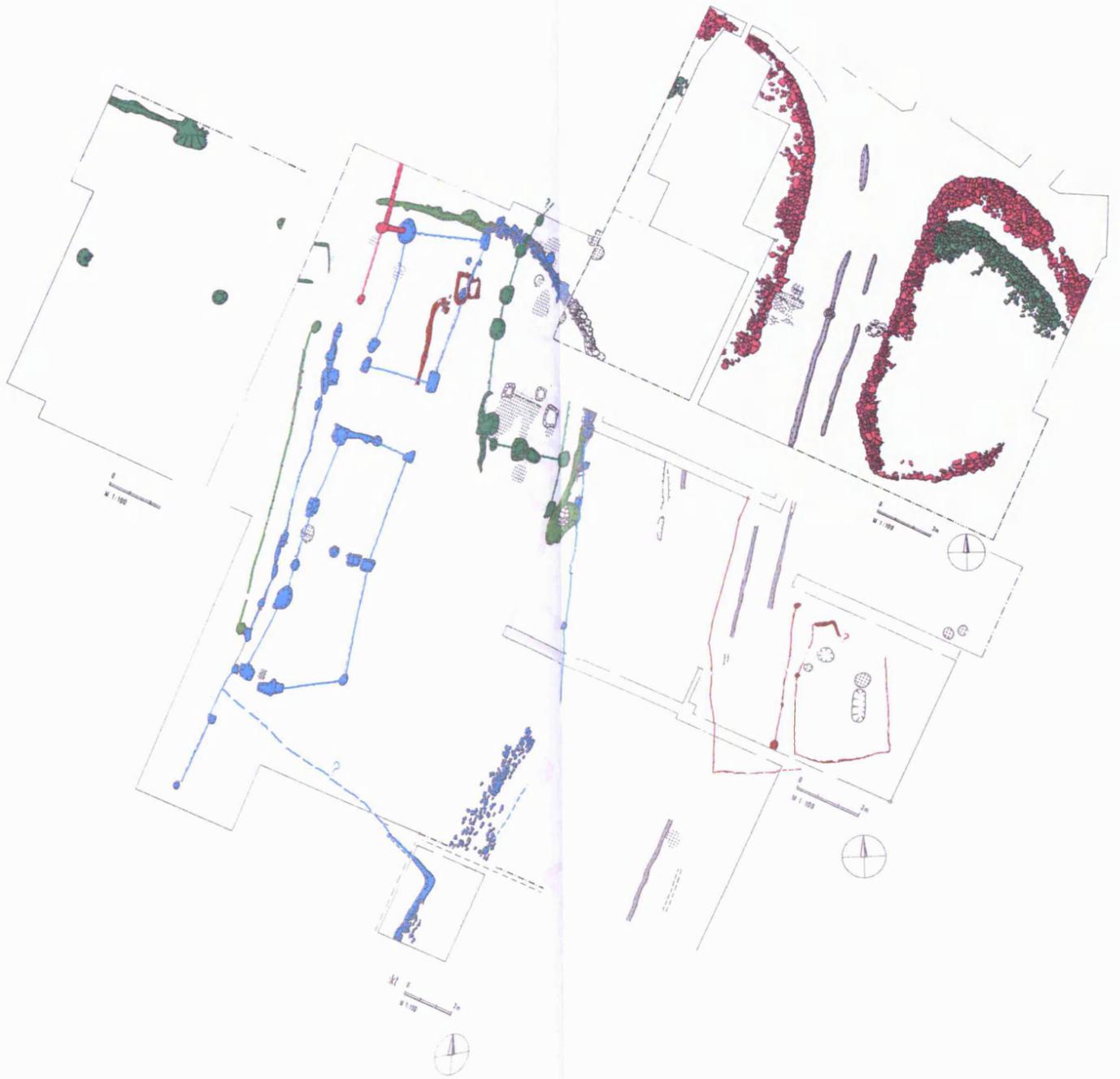
Plan 6: South part of the central area

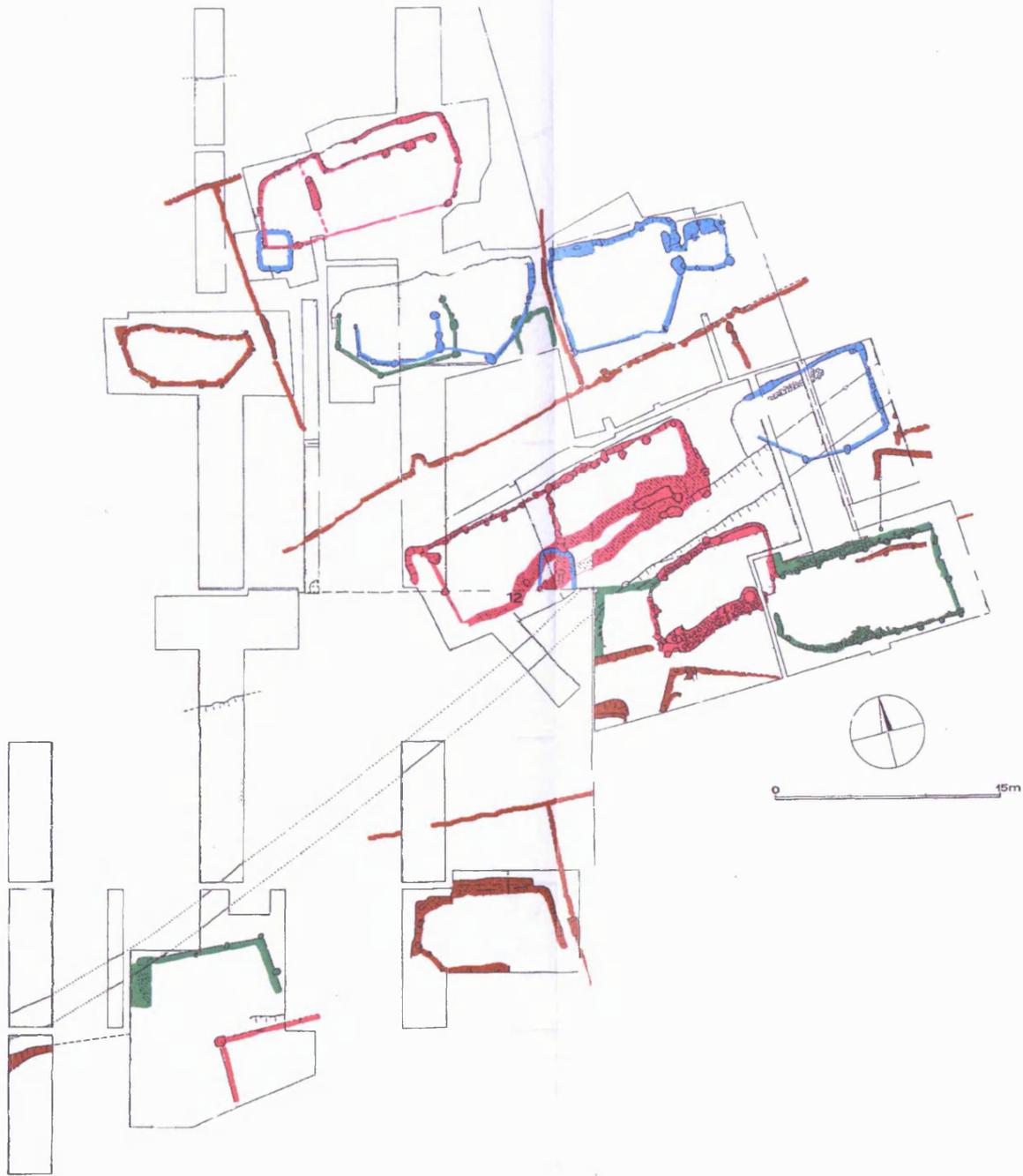


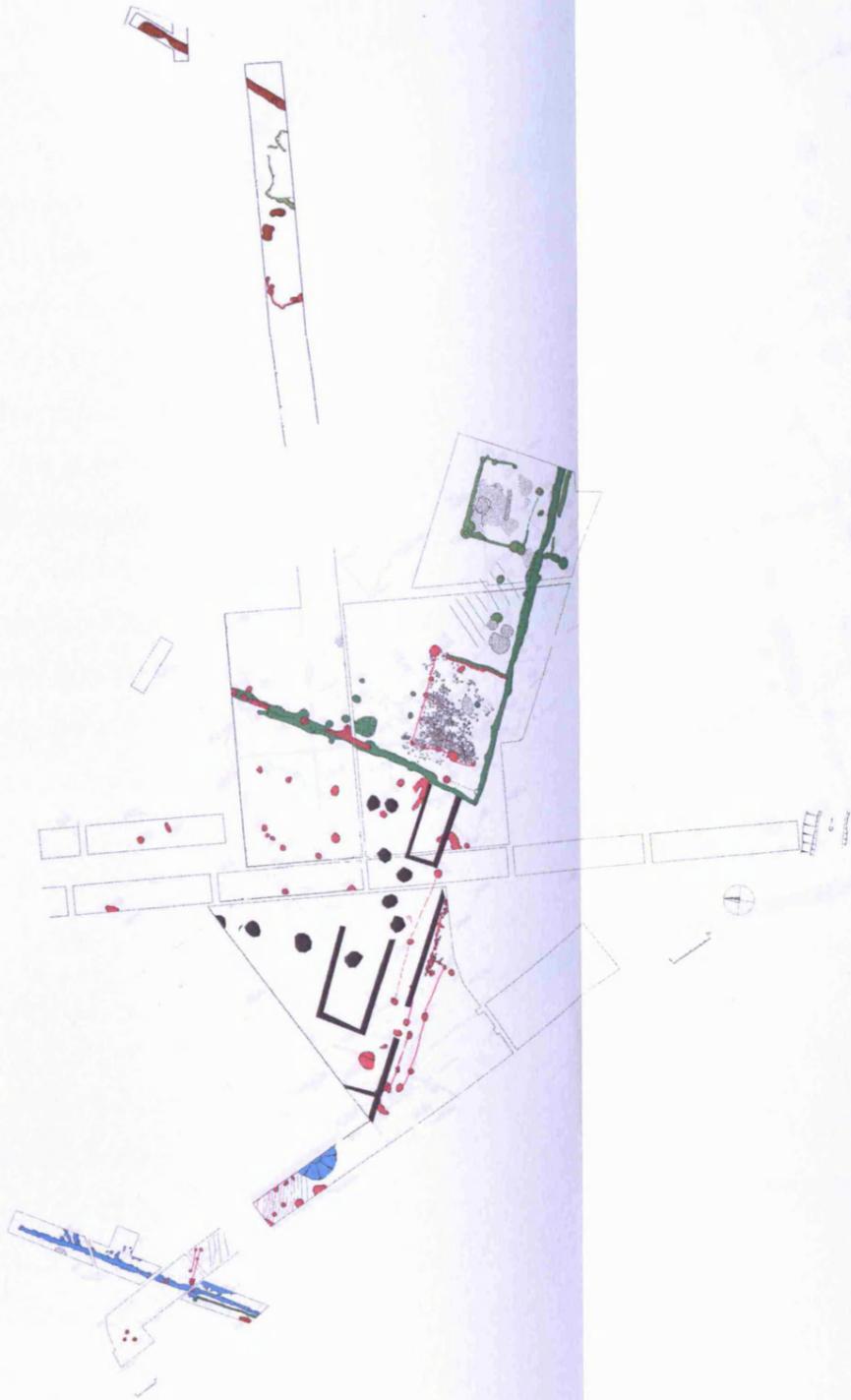


0 3m
M 1:100











Chapter 7: Discussion and conclusion.

What was the role and significance of *oppida* in the contemporary society?

The analyses of Manching, Titelberg and Hrazany revealed the individual character of each site and tested the debatable assumptions about *oppida* against the archaeological finds at those sites. The results of these site-analyses are the foundation for this discussion. First I will review the main assumptions on *oppida*. This review will be clustered in five themes. Four themes consider theoretical interpretations: the *oppidum* as an urban settlement, its central place functions, its hierarchical society and its dependence on the Mediterranean. The fifth theme is a conceptual one. This theme concerns the viewpoint of the *oppidum* to be a uniform and static concept. The discussion of each theme starts with a brief description of the current debate and is illustrated, in brief, with documentation from the case-studies. Secondly, I will introduce my interpretation of *oppida* and I will test it against the material from the case-studies. Finally, I will reflect on the past and future research on *oppida*.

1. Review of the main assumptions about *oppida*: what the *oppidum* was not

1. An *oppidum* is not a traditional urban settlement

1.1. An *oppidum* is not urban in the sense of the idealised Mediterranean city

In the debate about urbanism (chapter 1) *oppida* are generally compared to 'the Mediterranean city'. Some scholars consider the *oppida* to be the presence of a Mediterranean urbanism in Europe. Others argue that *oppida* are very different from Mediterranean cities and they therefore conclude that *oppida* are not urban at all. The core arguments in this debate are the alleged absence or presence of the 'traditional urban features' *in casu*: a large size, a considerable permanent population, an urban lay-out which includes settlement planning, ramparts, public buildings, public amenities, public places, and functional zoning, as well as a role as political, or at least as economic centre.. The debate conceals a search for Mediterranean elements in a non-Mediterranean context.

The review in chapter two clearly indicated that the debate is invalid because the applied 'traditional urban features' are based on a modern Western concept of urbanism. Moreover, these features are not accurate to be standards to measure urbanism, especially since they are

not all present at Mediterranean cities. Mediterranean cities do not all have a large dense settlement with functional zoning and nicely ordered buildings according to a strict orthogonal street plan. They are not all adorned with monumental ramparts, public buildings, a planned *agora* or *forum* and paved streets. 'The Mediterranean city' itself is a modern and inaccurate ideal of an urban settlement. In chapter two it was concluded that ramparts were exceptional in early Mediterranean cities and even a grid-plan was rare because most of the early cities were not planned at all. In addition there is little evidence for a functional zoning and public buildings, apart from temples, were very rare. *Agora* and *forum* were initially open spaces. Streets were made of earth, gravel, shells and potsherds in Greek cities, resembling the streets at *oppida*. Our modern vision of a city accords to that of the Romans as they deemed the city equal to the buildings and stone pavements. For the Greeks on the other hand, the inhabitants and the gods were the city. From these arguments I conclude that a debate on the urbanism of *oppida* based on these traditional urban features is futile. *Oppida* should not be compared to an ideal description of a city. In fact, it appears that *oppida* may not be very different from real Mediterranean cities. The question is not whether *oppida* are urban or not urban, but rather to what extent they are urban. There are different forms of urbanism and one should attempt to identify the *oppidum* type of urbanism.

Manching was a well-planned *oppidum*. The buildings were highly standardised; they are all measured to the same standard, built according to a selection of schemes and aligned to eight main orientation points. The settlement lay-out was structured by house plots. A clear sense of monumentality is shown by seven kilometres of ramparts that were first built in the elaborate *murus gallicus* construction, as well as by the impressive east gate with a tower and pavement, and by a paved public space in the centre. There are various other large open places and five public buildings, some of which are large enough for mass gatherings. There is no clear functional zoning at Manching and the street plan is very complex. However, this is not different from actual early Mediterranean cities.

Titelberg was highly planned from its start as an enclosed *oppidum*. In La Tène D1 major public works were undertaken to build: the first peripheral wall in *murus gallicus* style, the main ditch, the sanctuary complex, the main street, and the cemetery at the west gate. These constructions are expert examples of monumental public architecture. Yet, the sanctuary was in all phases erected in wood despite the fact that limestone was largely available. The settlement was well-structured. The main street connected the two gates. It was the axis for

every building, sanctuary and houses alike. The main ditch ran perpendicular to the street and may well have been a public drainage system. The isolated buildings were neatly aligned along the street in regular plots, almost resembling some modern cities. They were highly standardised rectangular post-and-panel buildings with approximately the same length. The *oppidum* is clearly divided into a settlement zone and a public zone, but an industrial zone can not be indicated. Industrial activity happened everywhere, even in the sacred area. There are many public open spaces: the sacred area, the large area along the ramparts and maybe the unknown enclosure in the west were left undeveloped.

The settlement at Hrazany was well-organised. It was partitioned in regular rectangular enclosures. Such urban-like settlement organisation cannot be considered Mediterranean. It must rather be perceived as the continuation of a regional tradition. The buildings were clearly standardised in construction type, material and orientation. The main street plan is not orthogonal but adapted to the topography, which also happened in Mediterranean cities. However, there are no public buildings at Hrazany, not even a sanctuary. Public activities must have taken place at other locations, for instance at the paved public square or perhaps in the various large square enclosures. Monumental architecture is confined to the ramparts and the paved public square. There is no indication of functional zoning in this *oppidum*.

The analysis of three *oppidum* sites revealed that the *oppida* are indeed different from the ideal Mediterranean city. The label urbanism should not be rejected as a whole for these sites. The *oppida* fulfil some of the traditional urban features, but every *oppidum* has its own particular set of urban features, applied according to its own standards. This results in different forms of urbanism which is in accordance with the fact that a city is specific and dynamic. Manching, Titelberg and Hrazany were all well-planned settlements with standardised buildings and monumental ramparts. They all lack a distinct industrial zone. Manching and Titelberg had monumental architecture such as sanctuaries. Collis (2010: 13) aptly states that “societies in Europe were sufficiently developed to support their own version of urbanisation, that which is simply different from that of the Classical world”.

1.2. An *oppidum* was not necessarily a large settlement

The idea that *oppida* were settlements with dense and permanent occupation is also debated. Some *oppida* are never totally occupied (Fichtl 2005: 87), some are rather eclectic agglomerations (Collis 1984a: 188). Filip (1981: 184) even argues that many *oppida* were not permanent settlements and that they had a short period of occupation (Filip 1981: 184). Permanency is hard to prove by archaeological finds. Furthermore, settlement density depends on the chronology of the settlement structures. However, even if an *oppidum* was not a dense settlement, it would not be less important than Mediterranean cities. The review in chapter two has given the insight that many ancient cities were not densely occupied and that they often had a rather scattered and sporadic occupation. Mediterranean cities are the political, religious and social centre for the community but not necessarily the main centre of habitation (Chapter 2).

Manching was a very large *oppidum* of 380 ha but it was probably not entirely occupied because it included terrain that was not suitable for settlement. The settlement density also varied in time and place. The centre had the most dense occupation because it was the earliest settlement core. The settlement gradually expanded and reached the south borders in La Tène D1. However, a high population density is not convincingly demonstrated by the archaeological finds. Many attempts have been made to estimate the population at Manching. These estimations range from 67-74 people according to the burial population in La Tène B/C, to 1,700 according to the amount of animal bones, or even to 3,750 based on the amount of human bones. However, none of these methods is very adequate or precise. The methods are based on several presumptions and can only estimate the amount of people consuming the meat that was slaughtered at the *oppidum*, or the amount of people being buried at the *oppidum*.

At Titelberg the settlement area is 30 ha. It gradually expanded from a core area and peaked in La Tène D2. The settlement seems dense in every excavation area, though caution is required because the chronology is not clear. Population estimations cannot be drawn from the settlement evidence because there are not enough data. Nevertheless burial evidence demonstrates that at least 125 people were buried in a period of 120 years or 5 generations (La

Tène D1-Gallo-Roman 2). However this is an inaccurate number. The cemetery itself is not completely excavated and there must have been many additional burials around the *oppidum*. At Hrazany the settlement started with a dispersed occupation of the area. In the *oppidum* period the settlement was dense and continuous, but it is not known how much of the *oppidum* area was inhabited. There are no data available on population estimations of this site.

Settlement appears to be dense in the excavated area of all the *oppida* but this may not be considered entirely proven due to lack of exact chronological data. The settlement expanded either from a core or from the enclosure of dispersed settlements. It remains very difficult, almost impossible, to calculate the exact population size at the time of the occupation.

2. An *oppidum* was not a genuine central place

Oppida are considered to be central places by some scholars (Collis 1984a, Buchsenschutz 1995, Fichtl 2005, Lorenz and Gerdson 2004), but this statement is often contested by others (Woolf 1993, Cumberpatch 1995, Haselgrove 1995). The debate is based on arguments related to settlement hierarchy and to central political or economic functions. However, the term 'central place' should not be used without proper consideration because it refers to very specific central place models; central places are central marketplaces with dependent hinterland, or centres where tribute was gathered, or places that dominate the territory and redistribute goods. It implies a political role within a spectrum from political dominance to monopolistic market function.

In fact, Mediterranean cities did not all have central economic and political functions. A large part of the inhabitants were farmers (Gat 2002: 125; Morris 1991: 35-37; Morgan and Coulton 1997: 99-100). Moreover, the market itself was not necessarily located in cities and there were even cities without notable markets (Morgan and Coulton 1997: 107; Alston 1998: 196). Politically, the state authority often rested on the willingness of the people (Morris 1991: 44) and a simple settlement hierarchy cannot be distinguished (Cavanagh 1991: 110-112; Alston 1998: 198). In conclusion, Mediterranean cities did not necessarily have political and economic power.

2.1. An *oppidum* was not a central place in terms of monopolistic market and control of trade

Oppida are thought to be central places in control of trade and long-distance routes. The arguments are basically the amount of coins and the existence of imports at *oppida*. However, imports and coins are often very rare at *oppida* and they are not restricted to the *oppida* only. Furthermore coins do not necessarily indicate a monopolistic market and above all the *oppida* are often far from communication routes and difficult to access (Metzler et al 2006b: 192; Salač 2000: 152-153). The idea that the *oppidum* controls trade is the product of a purely economic (capitalist) view with no basis in the archaeological finds. It is the modern idea that a city is a non-agrarian settlement with commercial activity in opposition to the countryside (Vanneste 1994).

Manching clearly had a market function. The presence of balances and standardised weights indicates that centrally organised trade transactions took place at Manching. The harbour and storage places allowed goods to be imported and exported. Nonetheless there is no evidence to believe that Manching also controlled long-distance trade. Manching is located on the Danube, a major river, but compared to the neighbouring *oppida* on this river the location is not outstanding at all. Furthermore, the numerous coins found at Manching were mainly from neighbouring regions. Moreover, the amount of *amphorae* and Mediterranean coins is relatively small. Manching is a centrally organised regional market place. For this reason Manching might be a solar central place, but a monopoly on the market and a dependent hinterland is hard to prove.

Titelberg had a regional market function and intensive contacts with various tribes but it is not in control of long-distance trade routes. Titelberg is not located on any major communication route. There are said to be substantial amounts of *amphorae*. However, the *amphorae* and the few other imports do not clearly demonstrate intensive trade with the Mediterranean because of the lack of information about their amount and chronology. The Mediterranean coins mainly date to the Gallo-Roman period. Therefore Titelberg must be considered as a regional marketplace, with an unclear degree of Mediterranean contacts.

Hrazany is located on the river Vltava. In fact, the majority of the Bohemian *oppida* are situated along the Vltava. It was definitely a major communication route, although transport

on this river was difficult due to its many rapids. Hrazany had contacts with the west, the east and the south even reaching the Alps. Hrazany presumably exported some typical Bohemian raw materials but this is hard to prove. The Bohemian *oppida* may well have been transfer and market places, but control of a long-distance trade route is doubtful. Not a single *amphora* is found in Hrazany. The only Mediterranean object is one small *balsamarium*. In fact, Mediterranean imports are generally very rare at all the Bohemian *oppida*. As Cumberpatch (1995: 80) states, the few objects cannot be considered to be evidence for the presence of an economic system. Therefore Hrazany probably did not have intensive contacts with the Mediterranean. Even a market place function is not evidenced at Hrazany.

In conclusion, the *oppida* had various external contacts. Some had a clear market function, but this was mainly restricted to the immediate region. Proper control of long-distance routes is not clearly demonstrated. The extent of Mediterranean trade varies among the sites, but none of them had clear evidence for intensive contacts in comparison to, for instance, Bibracte.

2.2. An *oppidum* was not a central places with political control over the region

The *oppida* are also expected to be the political centres of the region. This political function is mainly deduced from the assumed economic control. There are various arguments for a political central function: the record of Caesar on leaders and meetings at *oppida*, the existence of coin production that is mainly considered to be centrally organised, the presence of large spaces for mass gatherings and the ramparts that are often considered as a symbol of centrality (Collis 1984a: 104, 188; 1995: 75, Fichtl 2005: 91-97, 102-108, 120-121, 143-149; 161; 166). However, it is generally acknowledged that a political central function is hard to prove with archaeological finds (Collis 1984a: 104; Fichtl 2005: 149). The arguments based on the finds may well indicate political functions, but they do not necessarily imply political control.

At Manching silver and golden coins of different types were produced. Manching had various open spaces, including a central paved square and a large number of public buildings called sanctuaries. Yet, the same type of sanctuary is also found at 5 km from the *oppidum*. Manching had storage places. It is tempting to conclude that these storage places contained tribute or goods from the region for redistribution. However, they could equally be built to

store the *oppidum*'s goods, or to safeguard produce of the region or to store trade goods. The latter explanation is more likely because of the location of the storage places near the river and because of the significant market function of Manching. Manching had the space, the buildings, the organisation and even the storage place for mass gatherings and political significance, but political control cannot be deduced from these arguments.

At Titelberg at least five different types of coins were produced. There is enough constructed space to hold large mass gatherings, including a vast monumental sacred area. The enigmatic palisade passageways at the sacred area are likely to be movable voting installations. It would be a clear indication of the political significance of the *oppidum*. However, the fact that political meetings were organised at this site does not imply that the inhabitants also had control over the region.

There is no evidence for the production of coins at Hrazany, which is all the more surprising because gold must have been largely available. At Hrazany there is no evidence for public buildings either. None of the buildings stand out in size, floor plan or architecture. This *oppidum* did have a nicely paved open space. The traditional arguments for any political function are lacking at Hrazany and therefore control over the region is doubtful.

3. The *oppidum* society was not clearly hierarchical and led by aristocracy

The idea that the elite controlled the society is a persistent common assumption. The term 'elite' may include a variety of people, functions and status. Yet, it is commonly reduced to an hereditary group of people, a class with political dominance over the others: warrior elite, land-based aristocracy or a merchant class controlling production, trade or resources. Such interpretation of elite implies a hierarchical society, a society divided into family-based classes with a different degree of superiority. The assumption of a hierarchical society is largely based on Caesar's account of society: commoners, druids and *equites*, often translated as elite. However, Caesar saw society through the eyes of a conqueror and he may not have fully understood these foreign societies. He was eager to find out who were the leader and the ruling class in order to communicate and to subjugate the society.

In Manching the enclosures are interpreted as elite farmsteads. However, such enclosures are not unusual at the *oppidum* and the elite-like objects such as weapons, wagons and horse gear are not concentrated near them. The weapon burials of La Tène B/C are very rare and they are not the richest burials in terms of grave goods. The burial rite of La Tène D does not reflect a special treatment of particular bodies. The bones were all similarly deposited in refuse pits. However, the organisation of the settlement lay-out, the monumental building activity, the centralised market and the many sanctuaries at Manching must have required a social elite, for instance religious officials for the sanctuaries and a coordinating body of authority for the settlement lay-out. That such functions were held by a specific hereditary group of inhabitants is not proven. There is no significant concentration in the distribution of exceptional objects and the burial and settlement evidence is rather homogeneous.

At Titelberg the houses are all remarkably uniform and they do not indicate the presence of an elite at the *oppidum*. The burial evidence does not indicate an elite either. The few burials that contained weapons or ornaments were not the richest burials. On the contrary, Mediterranean imports, *amphorae* and *dolia*, were found in every single burial. It clearly reveals a rather equal society. It is postulated that the elite of Titelberg must have been buried in the rich burial tombs of Clémency at a distance of 5 km and Goebblange-Nospelt at 17 km. These burials mounds are indeed extraordinary and they contain artefacts that are commonly attributed to an elite. However, the tombs are not all contemporary to the *oppidum*. Therefore these tombs may have belonged to exceptional individuals but they are not necessarily hereditary elite, and not necessarily connected to the *oppidum*. The fact that the *oppidum* was monumentally laid out in a narrow timeframe requires a coordinating body. In addition, the political activities and the religious functions of the sanctuary, all require at least people that are appointed to organise the events. Nevertheless it is not proven that such functions were held by a specific hereditary group. At this *oppidum* burial and settlement evidence is rather uniform suggesting a rather society with a kind of social elite.

The elite of Hrazany are assumed to have lived in the large enclosures in the centre that are interpreted as elite farmsteads. However, such enclosures were not restricted to the central area. These buildings were the main settlement structure in the entire *oppidum* area. The traditional indicators of elite, such as weapons, spurs and Mediterranean objects, were found over the entire *oppidum* surface. Furthermore, industrial production such as metalworking happened in the whole *oppidum*, including in the central enclosures. There are no

archaeologically visible public buildings. It can be concluded that at Hrazany no signs of social hierarchy or any social differentiation are present.

In the *oppida* under study there is no clear hierarchical differentiation in house types, burial evidence or distribution of elite goods. Tomlinson (1992: 2-3) argues that all ancient settlements consisted of small communities and that the social unit was the extended family. Small, family-based communities do not need a hierarchical structure. On the contrary, in La Tène B/C, the period which preceded the *oppidum* period, society was remarkably homogeneous in Europe (Vandemoortele 2001: 104-107). Exactly these political, social and economic processes of this preceding period have led to the foundation of the *oppida* (Collis 1984a: 48).

4. *Oppida* were not dependent on the Mediterranean

The fact that *oppida* emerged in an area considered to be less civilised than the Mediterranean region, pushed scholars to the assumption that the *oppida* must be economically dependent on the Mediterranean (e.g. Brun 1995a).

4.1. *Oppida* did not depend on Mediterranean trade for their foundation and maintenance

Especially in the 1970's, the heyday of processualism, it was common practice to link urbanisation to the intensification of trade (Haselgrove and Moore 2007: 1). This is related to the common assumption that *oppida* are situated on the periphery in a Mediterranean world economy dominated by Rome (Brun 1995a: 23). However, the nature and importance of the Roman economy is nowadays debated (Paterson 1998: 164). The general dependence on Mediterranean trade is doubtful because imports are very rare at many *oppida*.

Manching had contacts with the Mediterranean, but Mediterranean goods played no significant role in its material culture. Only 3% of the coins are Mediterranean in origin and the *amphorae* and *campanian* pottery make up less than 0.5% of all ceramics. The contacts with the Mediterranean may well have been merely an exchange of knowledge. At Titelberg there is said to be a large number of *amphorae* but exact data are not available. Other imports and pre-Roman Mediterranean coins are rather rare at this *oppidum*. Based on the finds it is

obvious that there must have been Mediterranean contacts but the extent of these interactions is not clear. There is no evidence for contacts with the Mediterranean at Hrazany, apart from one small import. Not a single *amphora* is found. This *oppidum* is not an exception in this aspect as Mediterranean imports are rare at all the Bohemian *oppida*.

The studied *oppida* did not have clear evidence for intensive Mediterranean contacts. It must be said that other *oppida*, for instance Bibracte, do display large amounts of *amphorae* and other Mediterranean imports. The limited amount of imports may reflect the individual situation of each *oppidum* or each region. Even if Mediterranean contacts would be more intensive, a core-periphery relation was not essentially exploitative and might even have been beneficial for the periphery (Collis 2009: 9). As Cumberpatch (2004: 344) argued the *oppida* may have been partners for the Mediterranean, rather than peripheral dependants.

4.2. The idea to found *oppida* was not influenced by the Mediterranean

The emergence of the *oppida* is often thought to be influenced by the Mediterranean. Brun (1995a: 16), for instance, states that the urban type of settlement organisation was adapted from contacts with the Mediterranean. But the ramparts and settlement lay-out were often a continuation of a regional tradition, for instance at Hrazany. And why does an innovation have to come from the outside?

All the *oppida* under study were clearly planned and organised. They fulfilled some traditional urban features but they revealed a very individual character. Collis (2009: 1) states that the process of urbanisation and the nature of the *oppida* are substantially different from the Mediterranean. He argues that the *oppida* have their own version of urbanisation and that the two zones evolved parallel with each other (Collis 2009: 13). There is no need to look for one specific location where it would all have started. Because of the specific character of each *oppidum* it is unlikely that one general standard was applied to start the construction of a new settlement.

5. The *oppidum* is not a uniform and static concept

The *oppidum* is commonly treated as a homogeneous and static phenomenon. Over the years a definition has been developed which includes formal criteria and a fixed period. This has led to the exclusion of sites that are different in form and sites that date to a different period. The current definition for *oppida* is under debate because of formal variety among the *oppida* and because *oppida* do not all emerge in the ‘*oppidum* period’ or La Tène D.

The formal variety is discussed in section 1 of this chapter. It revealed that each *oppidum* applies its own particular set of settlement features in its own style. This section focuses on the dynamism of the *oppida*, on their evolution through time.

Manching was built on a place with ritual activity from the Bronze Age until the Hallstatt period. In La Tène B/C it was an open settlement with cemeteries, sanctuaries and even glass production. Only later, in La Tène C2 or D1, ramparts were built around the area and the settlement expanded. Therefore the ramparts did not necessarily constitute a major settlement breakpoint. The Roman period was not an abrupt end to the development of the settlement either. It continued to evolve and may have become a Roman *mansio*. It was presumably the transfer of the market function of Manching to Oberstimm that caused the collapse of the *oppidum*.

The first main ramparts at Titelberg were built early in the phase of Late Hallstatt –La Tène A. This resulted in the closure of the Titelberg promontory. There was a burial place and maybe an additional settlement in this period. The ramparts were often restored and there is evidence of human activity until La Tène B. In La Tène D1 the peripheral ramparts were built and the whole *oppidum* was laid out. It clearly indicates a new beginning. The Roman period did not mean any break point in the development. The settlement of Titelberg lived on in the Roman period, flourished at the time of the Roman camp, and slowly declined. Industrial activity and burial practice continued and the sanctuary was maintained for centuries. Human activity at Titelberg ends in the 4th century AD after the violent destruction of the sanctuary.

Hrazany was located on a place where human activity is demonstrated from the Paleolithic onwards. There is evidence for settlement in the Late Hallstatt –La Tène A period and again in La Tène C. In La Tène C2 the ramparts were built. The *oppidum* did not end abruptly. Even

after the ramparts and gate were burned down, settlement continued for a while. It faded out and was deserted after 30-20 BC. The reasons for the end of the settlement are still unknown.

In conclusion, *oppida* are dynamic and heterogeneous in structure. This is not surprising because even the often idealised Mediterranean city was not uniform and static.

2. My interpretation: what an *oppidum* was

1. An *oppidum* was the focal point for the region, the heart of the community

1.1. An *oppidum* was the central meeting place and common arena

The *oppida* were not completely occupied but they included large open spaces. Some open spaces were monumentalised with pavement (Manching, Hrazany) or an enclosure (Titelberg). Caesar frequently wrote about political/judicial meetings at *oppida*. Instead of the traditional assumption that the *oppidum* was a centre that exercised control over the region, I will argue that it was the central meeting place where the region controlled itself. The *oppidum* was not a superior centre of power that imposed its power, orders, law and control onto dependent and inferior people of the surroundings. Rather, the people living in the surroundings gathered at the *oppidum* to deal with their own political matters, to make decisions, to solve internal problems.

In my viewpoint the most appropriate theory is described in Terrenato and Motta's (2006) innovative interpretation of the city of Rome. They state that the society was dominated by different clans and that the city was the political arena where their conflicts could be regulated without resorting to violence. The gatherings in the city provided the truce that allowed deals between the clans to be negotiated. It offered the space where a set of ground rules that mitigated the endemic strife between clans could have effect. They argue that this is also seen in Roman law and history. The Roman law was mostly applied to interactions between different clans. History shows that private coups, assassinations and even all-out civil wars were in fact held by the clans and their factions when they became frustrated with the political game. In fact, according to Terrenato and Motta the state was a weak and frail entity that was inherently unstable. The state was not permanent and did not have priority over the community all the time because the clans could always temporarily reduce or revoke it.

This social interpretation of Terrenato and Motta is appropriate to be transferred to the *oppidum* and its society. The society consisted of small family-based communities. Small groups of families were distributed over the landscape. This understanding is well documented by the location of Gallo-Roman habitats around Titelberg, for instance. The different groups must have been aware of each other's presence. Moreover, they must have been in contact with one another. Some types of contacts require a specific moment and location, for instance: solving of disputes, entering into an alliance, major economic transactions and exchange, personal rites of passage including marriage ceremonies, or just activities to reinforce relationships, peace and unity. For such important communal activities a more significant location is required; the *oppidum*. The significance of the *oppidum* lay in the communal interactions that took place inside its boundaries, and not in its formal constructions. It recalls the Greek idea of a city. This notion is expressed by Tomlinson (1992 : 2, 5-6) when he argues "the Mediterranean city centre was merely the venue, not the basis, for the exercise of political life".

In my opinion the *oppida* were basically meeting places. At the *oppida* people met and made common arrangements. In times of danger the *oppidum* was the perfect place for the population to go to and take refuge. Individuals with a certain leading or organising function: family fathers, wise men, or elected officials, might have had a more permanent residence at the *oppidum* in times of danger or in times when enhanced advice and consultation was required, for instance when the Roman army of Caesar arrived. This may well have been the reason why Caesar believed that *oppida* were the centres where elite leaders resided. In conclusion, an *oppidum* is a place where people gathered for decision making and for all kinds of communal activities. This idea is the basis of my interpretation of the concept *oppidum*. Yet, it is a dynamic concept because the meeting place or *oppidum* can develop in many different ways and it can take various forms.

In addition the interpretation of *oppida* to be the common arena for the surrounding society might explain their particular location. The *oppida* were often located on a place that was not easy to access; on a hill (Titelberg, Hrazany) or in the middle of the moors (Manching). The *oppida* were not situated on the best agricultural land (Manching; Hrazany). Such relatively useless and inaccessible territory is neutral land because is not ground to fight over. Neutral land is the perfect location for the arena or gathering place of the region.

1.2. An *oppidum* may well have developed into a place for communal ritual activities

The *oppidum* was the central meeting place where political, economic, social and personal agreements were made. These significant agreements between individuals enter the realm of the sacred. A truce, for instance, is nothing without an oath and a divinity to guard it. Therefore the location for these meetings is sacred. The sacred place, the *oppidum*, was often adorned with ritual boundaries and often proper sanctuaries (Manching, Titelberg). The *oppida* were a favoured venue for burial practices. Titelberg was surrounded by burials and Manching was a large burial place itself. Manching even started as a ritual place before its ramparts were built. At Hrazany there is no sanctuary or burial evidence. Nevertheless this is in line with the regional trend in Bohemia to withdraw from materialisation. Generally the *oppidum* was a sacred place.

The *oppidum* was a favourable venue for ritual activities. Manching had various sanctuaries, often with extraordinary objects. In Titelberg the sacred area around the sanctuary was a large open space which could be used to harbour a massive crowd. At every studied *oppidum* large open spaces were present and often large enclosures can be indicated. These open spaces and enclosures could equally have served as a place for gatherings of a large group of people. They may have been used for agricultural reasons but the ritual and non-ritual activities are not mutually exclusive. At present large summer festivals are organised on land that has an agricultural function during the rest of the year. The *oppida* would be the appropriate places for individual rituals, such as rites of passage, and for communal feasts and activities. However, the *oppida* did not have the monopoly on ritual activities. They were rather a part of a sacred landscape.

The *oppidum* was a symbol of common identity. First of all, the sanctuaries may symbolise the unity among the various individuals by displaying or collecting objects from different population groups (Poux 2006: 196, fig. 10). The sanctuaries as well as the burial places constitute an element of stability in a fairly evolving settlement (Haselgrove 2007: 513). Haselgrove (2007: 501) even argues that the *oppidum* itself was the sanctuary to celebrate the community. Secondly, the ramparts of the *oppida* are the monumental expression of a communal bond. The emergence of *oppida* was a stage in a general trend to build enclosures (Haselgrove 1995: 84; 2007: 496; 500). Cumberpatch (1995: 84) aptly considers the act of enclosing land as a shift from the individual identity to the communal identity. The

effectiveness of *oppidum* ramparts as defence has been questioned by Fichtl (2005: 78-80). The ramparts of Manching, for instance, always collapsed after one generation (Van Endert 1987: 71). Woolf (1993: 232) stated: the communal act of building the ramparts had more significance for the society than its result. The fact that every generation rebuilt ramparts resembles the renewal of one's vows, of one's commitment to the community. Furthermore, it may be part of what Sharples (2010: 9) called: the construction of monumental boundaries that create and define the community, and organise the relationships between the community members.

1.3. An *oppidum* had the potential to become market place and fair ground

Oppida had a great potential for a trade and market function. Manching and Titelberg were regional markets because both have evidence for a cattle market and large-scale consumption. At Manching the market was even centrally organised with standardised weights, balances to check the coin value and a standardised currency. Hrazany may have had a market function but there is no clear archaeological evidence for this statement. All the *oppida*, reviewed in this study, had predominantly contacts with the neighbouring region. The *oppida* under study may well have been to some extent regional market places.

Oppida were thus central meeting places which were also used to perform commercial activities. But the market function is a secondary development (Collis 1984a: 188). The view on the market places should not be limited and understood only in economic function. Trade or exchange of goods involves significant agreements between individuals and populations. Therefore this activity required a specific, neutral, yet strongly symbolic location. A market place also serves to offer entertainment and to maintain communication over a wide area (Hendry 1999: 214). Ancient city-states generally emerged around a defended refuge or cultural centre which later became the local market place and attracted ever-larger population (Gat 2002: 7).

1.4. An *oppidum* had the potential to attract people to live inside its ramparts

Similar to ancient city-states *oppida* attracted growing populations, especially craftsmen. The *oppidum's* function to be the central meeting place for the region, where often religious festivals and regional markets were organised, means that many people visited the locality, often even *en masse*. The location was therefore the perfect place to set up a small industry or workshop and sell products. In every *oppidum* under review the majority of the inhabitants were involved in production.

Manching was located in a bog iron quarrying region. However, exploitation of raw materials was not the basic function of the site since the amount of iron was probably not even sufficient for the own market and had to be imported. At Manching there was a diversity of industrial production: iron working, bronze working, coin production, glass working and the production of ceramics. Iron working happened in the entire *oppidum* area. Craft production was an important occupation of the inhabitants of Manching. However, it was not the only activity of its inhabitants. Small-scale agriculture also took place inside the *oppidum*. In the vacant areas grain was harvested and threshed.

Titelberg was located on a plateau that was rich in iron ores. This natural resource was applied in: coin production, iron and bronze working and ceramics manufacturing. The industrial activity happened everywhere in the *oppidum*, even in the public zone. However, there is no information on the scale of the production in this *oppidum* and on the production at other settlements in the surrounding region.

There is plenty of evidence for metalworking at Hrazany. Specialised workshops have been identified and iron slag is spread over the entire *oppidum* area. Metal working happened from the very start of the *oppidum* and continued even after the latest ramparts had been burned down. It appears that the inhabitants were mostly artisans, whether full-time or part-time. It is noteworthy that the Hrazany site and the other *oppida* in the vicinity were not located in the rich ore mountains of Bohemia. This clearly indicates that *oppida* do not originate in a location just because of the exploitation of ready available raw materials.

In conclusion we can affirm that a diverse industrial production happened at every *oppidum*. Metal working appears to be a significant occupation of the inhabitants, although they may have been only part-time artisans.

1.5. The *oppidum* society not essentially hierarchical

In none of the studied *oppida* there is clear evidence for a rigid hierarchical society or an elite class. The houses and burial evidence at the *oppida* rather point to an egalitarian society. Traditional elite objects including: weapons, horse gear and imports are not concentrated at the so-called elite farmsteads but instead they are distributed rather randomly over the *oppidum* area. Craftsmen were not considered to be an inferior class because their activity is not restricted to a specific zone, moreover it is even located in the 'centre' (Manching) and in the sacred zone (Titelberg). The erection of monumental buildings and the settlement organisation at every *oppidum* does require a kind of central coordinating body but it does not necessarily consist of permanent and hereditary elite leaders. The leaders may have been chosen for specific situations or for a certain period of time. Such leaders may have been family heads or a group of wise men (and women) or even elected officials. The sanctuaries at Manching and Titelberg require a kind of religious officials but their status may well be personal and not inherited.

Conclusion

The *oppidum* is essentially the communal meeting place. It is the neutral arena for political, economic and personal agreements. It is conducive to preserve the truce between the individuals, the symbol of their peace and unity. It is not the place where power was exercised over the region but it was a location where inhabitants of the region solved the issues related to power. The *oppidum* is therefore the symbol of stability and communal identity. Because of this significance, each *oppidum* had the potential to exercise various roles: regional market place, ritual place and large settlement, especially for craftsmen. In this viewpoint the *oppidum* has the potential to take up functions that we would call urban.

2. *Oppidum* is an open and dynamic concept

2.1. *Oppida* are open and dynamic instead of uniform and static

The studied *oppida*, Manching, Titelberg and Hrazany, are clearly very different from each other. They are not uniform at all, neither in format nor in function. The diversity is not a drawback or difficulty in the analysis. On the contrary, it is very logical and it is the foundation for my interpretation of the *oppidum* as an open and dynamic concept.

Oppidum is an open concept. The essence of the *oppidum* is its role as central meeting place and as symbol of common identity. That basic function can be applied to every *oppidum*. The *oppidum* had the capacity to gather a large amount of people and resources. However, the way each individual *oppidum* developed depended on its own particular historical and regional context, which gives each site its specific character. Some of the *oppida* became large settlements and others did not. For some communities trade and the resulting market function were important (e.g. Manching), for others ritual activities (e.g. Titelberg). I do not suggest that each *oppidum* had one particular function or specialisation, but rather that each *oppidum*, being a central meeting place, had the potential to fulfil to some extent a market function, a ritual function and a political function. The result is a wide variety of *oppida* which are all variations on the same theme; “the central meeting place”.

The open concept *oppidum* is also a dynamic one. The functions of an *oppidum* were not static. Specific combinations of economic, ritual and political functions stood out at specific moments in time. The functions evolved in time. The evolution comes naturally with people’s changing needs and preferences. This dynamic view on *oppida* fits with the idea of a complex rather than a linear settlement evolution. It corresponds to Collis’ (1984a: 83-85; 2010: 2) dynamic model of settlement formation which is based on the various choices people could make. In times of danger people could opt to defend their settlement or to abandon it in favour of a defended site. When the threat was gone, they had again the choice to abandon or to stay at the chosen fortified site. Four options present themselves: the entire population returned to the former settlement or they all stayed at the defended site or those living close by stayed and the others returned to their settlements in the vicinity or the farmers returned while other groups stayed including: specialist craftsmen, merchants and elite. Haselgrove (1995: 82) discerns only two options: expansion and contraction. In times of eminent crisis most likely a

defended site expanded and after the crisis the defended site contracted when people decide to go back. The expansion of the defended site remained when the population looking for shelter decided to stay. Haselgrove identifies the latter to be urbanisation.

The model of Collis is very adequate because it explains the often random pattern of abandonment and continuity of *oppida*. Furthermore, it is not a linear model and it emphasises the agency of the individuals. However, the model focuses too much on threat and on finding refuge to be the reason to nucleate, although the threat does not need to be military. It could well be an economic, social or political threat (Collis 2010: 2). I would like to add that the 'defended site' was not necessarily fortified for reasons of defence. The 'defended site' may well, for instance, have been the *oppidum* or communal meeting place as it had ramparts. Its ramparts may have been symbolic boundaries that also had some defensive assets. In case of a military threat the community could take refuge at the existing *oppidum*. In case of a social or political threat some people may stay at the *oppidum*, even temporary, to solve the problem together or to take swift decisions. Apart from the conflict solving aspect, people also gathered temporarily for: communal political, juridical, religious and economic activities. When the threat was gone or when the communal activities were over, people could stay for various reasons. For instance, artisans may find the *oppidum* an economically interesting place. Religious leaders may stay because of an increased significance of a sanctuary. When the economic opportunity or religious significance at the *oppidum* diminished they could again decide to leave or abandon the *oppidum*.

This open and dynamic interpretation of the *oppidum* as central meeting place fits in with Caesar's understanding of *oppida*. For Caesar the *oppida* appeared to be places with power and influence (*auctoritas*). Caesar mentions that: political activities, including assemblies, took place at *oppida*; that the *oppida* had the capacity to contain large amounts of goods and people and even that Roman citizens were established at an *oppidum* for trade. Conquering an *oppidum* meant conquering a *civitas* to Caesar. This is logical because the *oppidum* was the hearth of the community and the venue for all the significant activities, including political gatherings, decision making and trade.

One of the possible critiques on my theory might be that it is too broad. This criticism has no merit to me since narrow categories decrease the reality. A clear-cut classification, which is applicable to all settlements in a larger geographical area, simply does not exist. Moreover, it

would neglect the individual character, the agency, as well as the specific regional and historical context of the *oppidum*. There is a wide variety within the *oppidum* sites because individuals act according to different events in different surroundings. This opinion has been affirmed by Tomlinson (1992: 2) who states that the variety in Mediterranean cities naturally stems from the variety in communities and from the fortunes of the city.

2.2. The Iron Age was a period of complex continuity instead of linear discontinuity

The *oppida* are to be understood in the context of a long-term period because of the complexity of the Iron Age. Haselgrove (1995: 83-84) expresses it adequately when he warns that: “isolation of one individual process leads to the unjustified generalisation and to confusion of superficial with structural transformations”. This is not a unique idea in archaeology. Tomlinson (1992: 6) states that city-states are: “only a creation of a brief moment in the changing pattern of history” and he added: “it is wrong to concentrate our attention simply on one phase of city development” (Tomlinson 1992 : 12-13). We should stop thinking about the Iron Age as a period of drastic changes and discontinuity. I rather see settlement evolution as a process of constant choices to be made, each decision having an influence on the development of the community.

The *oppida* are often said to ‘emerge’ or to ‘appear’ as if they were atypical and unexpected phenomena. However, very often existing settlements developed and became *oppida* (e.g. Manching). The actual end of the *oppida* is also difficult to determine. Some faded out (e.g. Hrazany), some remained a settlement with industrial activity and cult place (e.g. Titelberg) and others remained a settlement or became a Roman *mansio* (e.g. Manching). *Oppida* sometimes evolved into Roman cities because they had an ideal location for administration plus tax collection, and political agreements (Collis 1984a: 188). Therefore I support the more recent view that we have to integrate the period before and after the alleged *oppidum* period into the history of the *oppidum* sites.

The ‘Roman period’ is not a complete break in the complex continuity of the Iron Age. The role of the Roman world has been largely overstated according to Haselgrove (1995: 87). The Roman conquest does not cover the whole alleged *oppidum* area and the degree of Romanisation within the *oppidum* area is highly debated at present. The arrival of Romans

does not mark the coming of civilisation and the *oppida* are certainly not the result of Roman influence. The viewpoint may be twisted around namely: the Romans were interested in and succeeded in occupying the developed area because of the existing *oppidum* societies.

3. Theory in practice: the case-studies

My interpretation of *oppida* can be applied to the three *oppida* under review in this study, although the availability of evidence varies widely.

3.1. Manching

The location of Manching meets the requirements of a neutral arena since it is built on marshy ground which is not ideal for settlement or agriculture, yet safe enough from flooding to be pasture land. There was plenty of open space which could serve to hold mass gatherings: large open spaces in the centre and along the ramparts but also constructed spaces including the square enclosures and the two paved open spaces in the centre of the *oppidum*. Furthermore there were also large public buildings, called sanctuary C and D, which could have been used for mass gatherings, for small-scale meetings and/or for jurisdiction. The existence of a central decision making body is evident from the standardisation of buildings and the settlement planning, from the market coordination and from the organisation of the building works for the monumental ramparts and gates. This central body is not necessarily an aristocratic class because the settlement and burial evidence is relatively egalitarian.

Manching developed a significant regional market function. This is clear from the existence of a standardised weight system, the precision balances, the amount of coins and their well-defined denomination. It indicates that Manching had a centrally organised market. Manching also had a harbour with nearby storage space. The *oppidum* was therefore the focal point for trade and for the negotiations this economic activity involved. That the trade has a local character is evident from the predominance of local coins and the scarcity of Mediterranean imports. Manching was presumably a large interregional cattle market. This is indicated by the huge amount of animal bones found in the *oppidum* area. Moreover still today the largest cattle market in the region is held at the place where the cattle market of Manching was brought to in Roman times. The meeting and market function of Manching attracted many

artisans. They must have stayed in all parts of the *oppidum* as is shown by the distribution of evidence for industrial production.

Religion and ritual activities clearly played a major role in Manching from the very start of the first settlement. As early as in La Tène C1 there were sanctuaries, cemeteries and various ritual objects comprising: the golden cult tree, the horse statue and the ritually destroyed weapons. Manching has no less than four to five probable sanctuaries in its centre. At some of these sanctuaries weapons, tools and statues were displayed, which may have symbolised the entire population. At this site there are strong indications for ritual activity. The sanctuaries did not only fulfil a ritual role. Lead weights are found close to sanctuaries and may indicate economic transactions at their borders. Manching, in its entirety, is also a ritual space because it is the burial ground for more than 5,000 human bones. The bones were deposited in waste pits and the rest of the body was probably cremated. The significance of Manching to be a ritual space is also emphasised by the artificial circular form of the ramparts, enhanced with the sanctuary in its very centre. The circular boundary may well have existed before the construction of the ramparts. The ramparts are not purely defensive but they are symbols of common activity by the inhabitants since each generation rebuilt the ramparts. Manching must have been a large ritual space for the society though it did not have a monopoly on religion. It was part of a sacred landscape that consisted of a similar sanctuary and three *Viereckschanzen* within a distance of less than 1.5 km from the *oppidum*. There is also a clear link with the ritual past of the site. A Hallstatt sword was buried underneath the sanctuary in the centre of the *oppidum*. Furthermore, in the centre and just outside this site are burials from Bronze Age and La Tène B/C. There may even be a continuation of ritual activities or at least of the sacred notion of the place from these periods onwards. Therefore Manching was a sacred place that became a venue for a regional market and meeting place.

The society was not clearly hierarchically structured. The burial evidence has shown no differentiation in the treatment of the dead and there were no specific residences for an elite at the *oppidum*. Artisan activity is evidenced in all types of buildings and at every area in the *oppidum*. A large part of the population must have been part-time or full-time artisans. The society was heterogeneous in the origin of settlers. Apparently Boii stayed in a particular area of the *oppidum* and there is some evidence for foreign women on the site. The people were in good health and took care of their appearance. The inhabitants of the *oppidum* were self-

sufficient since evidence of small-scale harvest was demonstrated inside the *oppidum*, plus space for animal keeping was probably reserved within the enclosures.

The *oppidum* of Manching is a clear example of dynamic and continuous settlement evolution. The place attracted human activity from the Neolithic onwards. Manching started as an open settlement as early as La Tène C, or even La Tène B. The open settlement already had coin production, glass production and iron working. There were burial places and sanctuaries. The settlement gradually expanded and the ramparts were continuously reconstructed. The end of Manching is dated to the second half of the first century BC. In the Roman period there was still a settlement or *mansio* in the *oppidum* area, a settlement at the left bank of the Paar and a Roman camp plus fort nearby. The function of the site did change in that era. The cattle market of Manching was transferred to the Roman fort. The sanctuaries went out of use together with the burial rite. Iron quarrying also came to a close. The function of economic, social and probably political central meeting place moved to the Roman fort and people lost their connection to the Manching site.

3.2. Titelberg

Titelberg is situated on a promontory at 130 metres above the river. It is only accessible by a narrow passage. There is a 12 ha large open space, which is intentionally left empty and which is completely enclosed by ramparts plus a ditch with wall. This large constructed open space is clearly intended to hold mass gatherings. The existence of a central coordination body in the population of this site is evident from the standardisation of the buildings and the clear central planning of the *oppidum*. Within the same period of time the peripheral ramparts, the main street, the main ditch, the sanctuary and the cemetery were constructed. The central body must not necessarily be understood in terms of hereditary class because this is not convincingly demonstrated by the archaeological finds.

Titelberg was a regional marketplace. It was the venue for a cattle market as is indicated by the abundance of animal bones and the remains of large large-scale butchery. The *oppidum* had contacts with more than thirty different Gallic tribes. Iron quarrying and iron working must have played a significant role in Titelberg, which is located in an iron-containing region.

It is not possible to conclude that Titelberg was essentially a production site given the small amount of data.

The sacred function of Titelberg clearly stands out. The large open area in the east of the *oppidum* was a ritual place since it was reserved for the sanctuary only. Furthermore the sacred ditch contained items including: human bones, miniature weapons, bronze wheels and animal bones. This sacred area was also in the Gallo-Roman period respected to be an open space. The sanctuary's remarkable continuity of 300 years points to the deep-rooted sanctity of the place. The sacred area not only fulfilled religious roles comprising votive deposits and large feasts. There is clear evidence for bronze and iron working at the sanctuary and significant political meetings, for instance voting, were held at the sacred area. Furthermore, the *oppidum* was surrounded by cemeteries and burials which continued into Roman times. The worshipping of the curative water sources of Titelberg even lasted until the 17th-18th century AD. Titelberg fits in the picture of Treveri *oppida*; sanctuaries are found in four out of five Treveri *oppida*. The presence of the Roman army later on indicates that the *oppidum* had enough space and the qualifications to supply sufficient food and other necessary goods, encompassing: coins, ceramics and *fibulae* for the army.

Society was not clearly hierarchical. This is indicated by the homogeneous settlement finds and burial evidence. The houses at Titelberg are remarkably uniform and do not display specific elite items. Evidence for industrial activity is found everywhere in the settlement, even in the public area. None of the burials contained specific objects attributed to an elite. Ornaments and weapons are lacking and Mediterranean imports are found in every individual burial.

The *oppidum* of Titelberg had a dynamic and continuous evolution. In the Late Hallstatt –La Tène A period, the Titelberg promontory was closed off by monumental ramparts. It was presumably a burial place at that time. The ramparts were restored twice. In La Tène D1 enormous construction works were undertaken to enclose the entire promontory with monumental ramparts, and to lay-out the area. The former burial area became a sacred zone. The settlement area grew and reached its peak in La Tène D2. The Roman influence was by no means a point of closure for this site. A Roman garrison was stationed at the *oppidum* from 29 to 16 BC. The settlement continued to thrive and the industrial activity even flourished. Titelberg maintained the major functions and activities during the Gallo-Roman

period. Industrial production, mainly coin production and metalworking, was carried on at Titelberg until the third century AD and the religious functions of the *oppidum* remained significant even until the fourth century AD. The sanctuary was enlarged and monumentalised and even additional religious places developed on the Titelberg site. The sanctity of the place was still acknowledged in the nineteenth century AD. The new founded Roman city of Augusta Treverorum did not simply replace the *oppidum*. The final destruction of the *oppidum* happened in the fourth century AD.

3.3. Hrazany

Hrazany is located on an oblong promontory surrounded by rivers that has steep slopes and is only accessible from the south. In the *oppidum* there are well constructed open spaces. The centre of the *oppidum* is a paved square that is crossed by the main road. It is a laid out gathering place with a long continuation, which dates to the first plan-like expansion of the settlement. Additional open spaces are not mentioned. The existence of a central coordinating body within the population is evident from: the fairly standardised buildings, the construction of ramparts and the settlement planning with streets and paved square.

There were certainly trade and exchange contacts with the west and the east, yet a major market function is hard to prove. Industry, more specifically iron working, played a significant role in the Hrazany society since evidence is found in the entire *oppidum* area. Metalworking appears to have been the major occupation of most inhabitants. Strange enough no coin production has so far been found, although Hrazany is located in a gold-ore region. However, the interpretation of the *oppidum* to be the centre of production in the surrounding area would go too far.

At Hrazany no particular building can be identified with the function of a sanctuary or even a limited sacred enclosure. This seems to be a trend in the Bohemian region and it is not out of the ordinary for this locality. The lack of monumental religious buildings appears to be a Bohemian characteristic. It does not mean that the *oppidum* was not a religious place. Within the same historical timeframe other places were provided with enclosures: the other *oppida* in the surroundings and the *Viereckschanzen*. The emergence of *oppida* is sometimes considered to be part of a trend to enclosure land. This trend was accompanied by the evolution from

material ritual activities to the immaterial. There were no more burials, no sanctuaries, and no sacred artefacts at the time of the *oppida*. The *oppidum* itself was a communal monument. The area was very large and probably not entirely exploited. It may well have been the place reserved for mass gatherings and communal activities, including refuge in times of danger.

The society at Hrazany was not clearly hierarchical. Attempts to identify farmsteads as elite residences failed. The existence of an aristocracy is not demonstrated in this *oppidum* because the enclosures that were considered to be their residences are in fact the main settlement type. Objects related to the existence of an elite were not confined to the presumed elite residence area. The distribution of industrial remains indicates that the major part of population was at least capable of craft activities.

Hrazany had a dynamic and continuous evolution. Sporadic settlement started in the Paleolithic. From Late Hallstatt until La Tène A there was a hilltop settlement with dispersed farmsteads. The *oppidum* was first a hilltop settlement and in La Tène C2 the ramparts were built. The *oppidum* evolved from a dispersed settlement in the centre and near gate A to a settlement that covered the whole *oppidum* area. The end of the *oppidum* does not coincide with the destruction of gate B. The gate just went out of use, since the road was just replaced while the gate was not restored. Any attempt to relate the destruction of the gate to historical facts has failed. In the phase after the destruction of gate B some additional structures were built. The *oppidum* was therefore not destroyed but rather slowly declined.

3. Future research

The *oppidum* is a rich subject of research which made it hard to choose only one aspect and to formulate a focussed research question. I have decided to focus on the analysis of the debated urban character of established *oppidum* sites. It involved a limitation to the traditional *oppidum* period and *oppidum* region.

Other related research subjects remain interesting topics. First, the reason why *oppida* were built would be an interesting research topic on its own. It includes the whole complex settlement evolution before the *oppida* and the examination of internal and external causes from the environment. Secondly, equally significant is the reason why *oppida* diminished and

vanished. The examination of the existing different theories related to this question, which are in fact strongly linked to those of the first question, would be an enrichment to our current understanding of *oppida* and to the interpretation presented in this dissertation. Lastly, there is the comparison of *oppida* with other contemporary sites. Such comparison is really vital to reconstruct the total picture of contemporary society and to verify the existing definition of the *oppidum*.

I would have liked to put the individual site analysis on a broader level and to enlarge the examined number of *oppida*. I would have liked to compare all the known *oppidum* sites with other settlements, especially with the open settlements, and to compare settlements from different periods: from La Tène A to the post-*oppidum* period. However, within the limited time the detailed analysis of the chosen three exemplary sites was all that could be undertaken.

If an addition would be made to this dissertation, I would start from my interpretation of the concept *oppidum* which I outlined here and I would compare it with other existing theories on Iron Age society; I would re-read the classical authors with the new interpretation in mind; I would examine the archaeological record encompassing all of Europe within the complete Iron Age period. This broadening of the scope would allow me to re-interpret the *oppidum* and the *oppidum* society.

Bibliography

- Albrecht, E. 2009a. *Das römische Kastell in Manching/Oberstimm – 2. Das Kastell Oberstimm* [Online]. Available at: <http://www.museum-manching.de/index.php?id=58,16> [Accessed: 30 March 2009].
- Albrecht, E. 2009b. *Das römische Kastell in Manching/Oberstimm – 3. Römerstrassen* [Online]. Available at: <http://www.museum-manching.de/index.php?id=58,16> [Accessed: 30 March 2009]
- Alston, R. 1998. Trade and the city in Roman Egypt. In: Parkins, H. and Smith, Ch. (eds) *Trade, traders and the ancient city*: p. 168-202.
- Álvarez-Sanchís, J.R. 2005. Oppida and Celtic society in Western Spain. *Journal of interdisciplinary Celtic studies* 6: 255-285.
- Arnold, B. and Gibson, D.B. (eds) 1995. *Celtic chieftdom, Celtic state. The evolution of complex social systems in prehistoric Europe*. Cambridge: Cambridge University Press.
- Barral, Ph., Colin, A. and Luginbühl, Th. 1999. Les importations méditerranéennes. La vaisselle céramique. In: K. Gruel and D. Vitali (eds) *L'oppidum de Bibracte. Un bilan de onze années de recherché (1984-1995)*. *Gallia* 55.
- Behrens, G. and Werner, J. (eds) *Reinecke Festschrift zum 75. Geburtstag von Paul Reinecke an 25. September 1947*. Mainz: E. Scheiderverlag.
- Brehaut, E. 1964 (reprint 1972). *An encyclopedist of the Dark Ages. Isidore of Seville*. New York: Burt Franklin Reprints.
- Bowman, A.K., Champlin, E. and Lintott, A. 1996. *The Augustan Empire, 43 BC – AD 69*. Cambridge: Cambridge University Press.
- Břeň, J. 1976. Earliest settlements with urban character in Central Europe. In: Cunliffe, B. and Rowley, T. (eds) *Oppida. The beginnings of urbanization in barbarian Europe*. (BAR Supplementary Series II) Oxford: British Archaeological Reports: 81-94.
- Brun, P. 1995a. From chieftdoms to state organisation in Celtic Europe. In: Arnold, B. and Gibson, D.B. (eds). *Celtic chieftdom, Celtic state. The evolution of complex social systems in prehistoric Europe*. Cambridge: Cambridge University Press: 13-25.
- Brun, P. 1995b. Oppida and social 'complexification' in France. In: Hill, J.D. and Cumberpatch C.G. (eds) *Different Iron Ages. Studies on the Iron Age in temperate Europe*. (BAR international series 602). Oxford: Hadrian book Ltd: 121-128.
- Boessneck, J., Von den Driesch, A. and Meyer-Lemppenau, U. 1971. *Die Tierknochenfunde aus dem Oppidum von Manching*. (Die Ausgrabungen in Manching vol 6). Wiesbaden: Franz Steiner Verlag.

- Brunnacker, K. 1970. Geologisch-bodenkundige Verhältnisse. In: Krämer, W. and Schubert, F. (eds) *Die Ausgrabungen in Manching 1955-1961*. (Die Ausgrabungen in Manching 1) Wiesbaden : Franz Steiner Verlag: 17-20.
- Brunaux, J.-L. (ed) 1991. *Les sanctuaires celtiques et leurs rapports avec le monde méditerranéen*. Actes du colloque de St-Riquier du 8 au 11 novembre 1990, organisés par la Direction des Antiquités de Picardie et l'UMR 126 du CNRS. Paris: Editions Errance.
- Buchsenschutz, O. 1991. Viereckschanzen et sanctuaires de l'Europe celtique. In: Brunaux, J.-L. (ed) *Les sanctuaires celtiques et leurs rapports avec le monde méditerranéen*. Actes du colloque de St-Riquier (8 au 11 novembre 1990) organisés par la Direction des Antiquités de Picardie et l'UMR 126 du CNRS. Paris: Editions Errance 106-112.
- Buchsenschutz, O. 1995. The significance of major settlements in the European Iron Age, in: Arnold, B. and Gibson, D.B. (eds) 1995. *Celtic chiefdom, Celtic state. The evolution of complex social systems in prehistoric Europe*. Cambridge: Cambridge University Press: 53-63.
- Buchsenschutz, O. 2000. Les oppida celtique un phénomène original d'urbanisation. In: Guichard, V., Sievers, S. and Urban, O.H. (eds). *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS "Archéologie de la Bourgogne" (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 61-64.
- Buchsenschutz, O. 2004. Les Celtes et la formation de l'Empire romain. *Annales. Histoire, sciences sociales* 59.2: 337-361.
- Buchsenschutz, O. and Krausz, S. 2001. Levrux et le modèle de la genèse des oppida. In: Collis, J. (ed) *Society and settlement in Iron Age society*. Actes du XVIIIe colloque de l'AFEAF, Winchester April 1994. Sheffield: J.R. Collis Publications: 292-298.
- Burmeister, S. and Weski, T. 1992. Archäologische Untersuchungen im Zuge des Ausbaus der Strasse Manching-Westenhausen. *Sammelblatt des historischen Vereins Ingolstadt* 101: 9-25.
- Cahen-Delhayé, A., Duval, A., Leman-Delérive, G. and Leman, P. (eds) 1984. *Les Celtes en Belgique et dans le Nord de la France*. Lille: Revue du Nord.
- Cavanagh, W.G. 1991. Surveys, cities and synoecism. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient world*. (Leicester-Nottingham studies in Ancient Society 2) London and New York: Routledge: 97-118.
- Champion, T.C. and Megaw, J.V.S. (eds) 1985. *Settlement and Society: aspects of West European prehistory in the first millennium BC*. Leicester: University Press.
- Childe, V.G. 2002. The urban revolution. In: Pacione, M. *The city. Critical concepts in the social sciences. Volume I: The city in global context*. London and New York: Routledge: 9-18.

- Chytráček, M. and Metlička, M. 2004. *Die Höhensiedlungen der Hallstatt- und Latènezeit in Westböhmen*. (Památky archeologické – supplementum 16). Prague: Institute of Archaeology.
- Collis, J. 1976. Town and market in Iron Age Europe. In: Cunliffe, B. and Rowley, T. (eds) 1976. *Oppida: the beginnings of urbanisation in barbarian Europe*. Papers presented to a conference at Oxford, October 1975. (BAR supplementary series II). Oxford: British Archaeological Reports: 3-23.
- Collis, J. 1984a. *Oppida. Earliest towns north of the Alps*. Sheffield: University of Sheffield.
- Collis, J. 1984b. What do we want to know ? In: Cahen-Delhay, A., Duval, A., Leman-Delery, G. and Leman, P. (eds) 1984. *Les Celtes en Belgique et dans le Nord de la France*. Lille: Revue du Nord : 283-284.
- Collis, J. 1995. States without centres? The middle La Tène period in temperate Europe, in: Arnold, B. and Gibson, D.B. (eds) *Celtic chiefdom, Celtic state. The evolution of complex social systems in prehistoric Europe*. Cambridge: Cambridge University Press: 75-80.
- Collis, J. 2000. 'Celtic' oppida. In: Hansen, M.H. (ed) *A comparative study of thirty city-state cultures. An investigation conducted by the Copenhagen Polis Centre*: p. 229-240.
- Collis, J. (ed) 2001. *Society and settlement in Iron Age society*. Actes du XVIIIe colloque de l'AFEAF, Winchester April 1994. Sheffield: J.R. Collis Publications
- Collis, J. 2007. The polities of Gaul, Britain, and Ireland in the late Iron Age. In: Haselgrove, C. And Moore, T. (eds) *The late Iron Age in Britain and beyond*. Oxford: Oxbow books: 523-528.
- Collis, J. 2009. Centralisation and urbanisation in temperate Europe during the Iron Age. In: *Zentralisierung und Urbanisierung in Europa nördlich der Alpen während der Eisenzeit*. Conference in Stuttgart, October 2009. Forthcoming.
- Collis, J. 2010. Iron Age oppida. In: Meyer, M. and Hansen, S. (eds) *Parallele Raumkonzepten*. Conference in Berlin. March 2010. Forthcoming
- Collis, J., Krausz, S. and Guichard, V. 2000. Les villages ouverts en Gaule centrale aux I^{er} et II^{es} siècles av. J.-C. In: Guichard, V. Sievers, S. and Urban, O.H. (eds) *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS "Archéologie de la Bourgogne" (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 73-82.
- Corbier, M. 1991. City, territory and taxation. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World*. (Leicester-Nottingham studies in Ancient Society 2) London and New York: Routledge: ap. 311-239.
- Cumberpatch, C.G. 1995. Production and society in the later Iron Age of Bohemia and Moravia. In: Hill, J.D. and Cumberpatch, C.G. (eds) *Different Iron Ages. Studies on the Iron Age in temperate Europe*. (BAR international series 602) Oxford: Hadrian book Ltd: 67-93.

- Cunliffe, B. and Rowley, T. (eds) 1976. *Oppida: the beginnings of urbanisation in barbarian Europe*. Papers presented to a conference at Oxford, October 1975. (BAR supplementary series II). Oxford: British Archaeological Reports.
- Dehn, W. 1962. Aperçu sur les oppida de l'Allemagne à la fin de l'époque celtique. *Celticum* 4: 329-386.
- Dickens, P. 1990. *Urban sociology: Society, locality and human nature*. (Studies in sociology). Hertfordshire: Harvester Wheatsheaf.
- Dobiat, C., Sievers, S. and Stöllner, Th. (eds) 2002. *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*. Akten des Internationalen Kolloquiums in Hallein/Bad Dürrnberg. 7-11 Oktober, 1998. Bonn: Rudolf Habelt GmbH.
- Doesburg, JJ. 1900. *Julius Caesar. Gedenkschriften van den Gallischen Oorlog*. Amsterdam: Van Looy/Gerlings.
- Drda, P. 2002. Wirtschaftliche Strukturen am Beispiel böhmischer Oppida. In: Dobiat, C. Sievers, S. and Stöllner, Th. (eds) *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*. Akten des Internationalen Kolloquiums in Hallein/Bad Dürrnberg von 7. bis 11. Oktober 1998. Bonn: Rudolf Habelt Verlag: 287-296.
- Drda, P., Motykova, K. and Rybová, A. 1991. L'acropole de Závist. In: Brunaux, J.-L. (ed) *Les sanctuaires celtiques et leurs rapports avec le monde méditerranée*. Actes du colloque de St-Riquier (8 au 11 novembre 1990) organisé par la Direction des Antiquités de Picardie et l'UMR 126 du CNRS. Paris: Editions Errance: 199-202.
- Drda, P. and Rybová, A. 1994. Bohemia in the Iron Age: a recent view. In: Fridrich, J. (ed). *25 Years of archaeological research in Bohemia. On the occasion of the 75th anniversary of the institute of archaeology, Prague*. (Památky archeologické – supplementum 1). Prague: Institute of archaeology: 82-92.
- Drda, P. and Rybová, A. 1995. *Les Celtes de Bohême*. Paris: Editions Errance.
- Drda, P. and Rybová, L. 1997. Keltická oppida v centru Boiohaema. (Die Keltischen Oppida im Zentrum Boiohaemum) *Památky archeologické* 88.2: p. 65-123.
- Duff, J.D. (transl) Lucan. *The civil war*. (The Loeb Classical Library). Cambridge Massachusetts: Harvard University Press; London: William Heinemann LTD.
- Duval, A. 1984. Du "hill-fort" à l'oppidum: fonctions du site et rôle du rempart. In: Cahen-Delhay, A., Duval, A., Leman-Delery, G. and Leman, P. (eds) *Les Celtes en Belgique et dans le Nord de la France*. Lille: Revue du Nord: 279-282.
- Duval, P.-M. and Kruta, V. (eds) 1979. *Les mouvements celtiques du Ve au Ier siècle avant notre ère*. Actes du XXVIII^e colloque organisé à l'occasion du IX^e congrès internationale des sciences préhistoriques et protohistoriques. Nice, le 19 septembre 1976. Paris: Editions du centre nationale de la recherche scientifique.

- Ebner, D. Et al. (eds) 2003. *Das archäologisches Jahr in Bayern 2002*. Stuttgart: Konrad Theiss Verlag.
- Edwards, H.J. (transl) 1917 (reprint 2006) *Caesar. The Gallic war*. (The Loeb Classical Library). Cambridge Massachusetts and London: Harvard University Press.
- Fichtl, S. 2000. *La ville celtique. Les oppida de 150 av. J.-C. à 15 ap. J.-C.* Paris: editions errance.
- Fichtl, S. 2005 *La ville celtique. Les oppida de 150 av. J.-C. à 15 ap. J.-C.* 2nd ed. Paris: editions errance.
- Fichtl, S., Metzler, J. and Sievers, S. 2000. Le rôle des sanctuaires dans le processus d'urbanisation. In: Guichard, V. Sievers, S. and Urban, O.H. (eds) *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS "Archéologie de la Bourgogne" (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 179-186.
- Filip, J. 1981. Die geschichtliche Bedeutung der Spätkeltischen Oppida. In: *150 Jahre Deutsches Archäologisches Institut 1829-1979*. Festveranstaltungen und internationales Kolloquium 17.-22. April 1979 in Berlin. Mainz: Verlag Philipp von Zabern: 176-187.
- Finley, M.I. 1981. The ancient city: from Fustel de Coulange to Max Weber and beyond. In: Shaw, B.D. and Saller, R.P. (eds) *Economy and society in ancient Greece by M.I.Finley*. London: Chatto and Windus: 3-23.
- Fischer, Th., Rieckhoff, S. and Spindler, K. 1984. Grabungen der Spätkeltischen Siedlung im Sulzthal bei Berching-Pollanten, Landkreis Neumarkt, Oberpfalz. *Germania* 62.2: 311-372.
- Foster. B.O. (transl) 1919 (reprint 2002) *Livy. History of Rome*. (The Loeb Classical Library). Cambridge and London: Harvard University Press.
- Gat, A. 2002. Why city-states existed? Riddles and clues of urbanisation and fortifications. In: Hansen, M.H. (ed) *A comparative study of six city-state cultures*. Copenhagen: The Danish Royal Academy: 125-138.
- Gates, Ch. 2003. *Ancient cities. The archaeology of urban life in the ancient Near East and Egypt, Greece and Rome*. London and New York: Routledge.
- Gebhard, R. 1989. *Der Glasschmuck aus dem Oppidum von Manching*. (Die Ausgrabungen in Manching 11). Stuttgart: Franz Steiner Verlag Wiesbaden.
- Gebhard, R. 1991. *Die Fibeln aus dem Oppidum von Manching*. (Die Ausgrabungen in Manching 14). Stuttgart: Franz Steiner Verlag.
- Gebhard, R. 1995. The 'Celtic' oppidum of Manching and its exchange system. In: Hill, J.D. and Cumberpath, C.G. (eds) *Different Iron Ages. Studies on the Iron Age in temperate Europe*. (BAR international series 602) Oxford: Hadrian book Ltd: 111-120.

- Gebhard, R. and Uenze, H.P. 1989. Neue Funde aus dem keltischen Oppidum von Manching. *Mitteilungen der Freunde der Bayerischen Vor- und Frühgeschichte* 54. (no page numbers)
- Geilenbrugge, U. 1990. Les repères chronologiques fournis par la céramique mise au jour dans le remplissage des fosses de l'oppidum de Manching, Bavière. *Revue archéologique de l'Ouest*: supplément 3: 233-244.
- Gerritsen, F. and Roymans, N. 2006. Central places and the construction of tribal identities. The case of the Late Iron Age Lower Rhine region. In: Haselgrove, C. (ed). *Celtes et Gaulois. L'archéologie face à l'histoire. Les mutations de la fin de l'âge du Fer*. Actes de la table ronde de Cambridge 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne: Centre archéologique européen: 251-266.
- Glare, P.G.W. 1968-1982. *Oxford Latin Dictionary*. 8 volumes. Oxford: Clarendon Press.
- Goudineau, C. (ed) 2006. *Religion et société en Gaule. Edité à l'occasion de l'exposition 'Par Toutatis! La religion des Gaules' Lyon, Musée gallo-romain de Lyon-Fourvière 30 juin 2006 – 7 janvier 2007*. Paris.
- Goudineau, C. and Peyre, C. 1993. *Bibracte et les Eduens. A la découverte d'un peuple gaulois*. (Collection hauts lieux de l'histoire). Paris: Editions Errance.
- Gruel, K. and Vitali, D. 1999. L'oppidum de Bibracte. Un bilan de onze années de recherche (1984-1995). *Gallia* 55: 1-140.
- Gugel, H. 1979. Servius. In: Ziegler, A and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike*. 5. München : Deutscher Taschenbuch Verlag: 145-146.
- Guichard, V. and Perrin, F. 2002. *L'aristocratie celte à la fin de l'âge du Fer (du II^e siècle avant J.-C. au I^{er} siècle après J.-C.)* Actes de la table ronde organisée par le Centre archéologique européen du Mont Beuvray. Glux-en-Glenne 10-11 juin 1999. (Collection Bibracte 5). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray.
- Guichard, V., Sievers, S. and Urban, O.H. (eds) 2000. *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS 'Archéologie de la Bourgogne' (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray.
- Guillaumet, J.-P. 1984. Rapport introductif sur le rôle du rempart dans l'oppidum, structure pré-urbaine. In: Cahen-Delhaye, A., Duval, A., Leman-Delerville, G. and Leman, P. (eds) *Les Celtes en Belgique et dans le Nord de la France*. Lille: Revue du Nord: 277-278.
- Gundel, H.G. 1979. Hirtius. In: Ziegler, K. and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike*. II: 1183-1184.
- Hahn, E. 1992. Die menschliche Skelettreste. In: Maier, F., Geilenbrügge U. et al. (eds). *Ergebnissen der Ausgrabungen 1984-1987 in Manching*. (Die Ausgrabungen in Manching Vol. 15) Stuttgart : Franz Steiner Verlag : 214-234.

- Hansen, M.H. (ed) 1997. *The polis as an urban centre and as a political community*. Symposium august 29-31 1996. (Acts of the Copenhagen Polis Centre volume 4) Copenhagen: Munksgaard.
- Hahn, E. 1999. Zur Bestattungssitte in der Spätltènezeit. Neue Skelettfunde aus dem Oppidum von Manching. *Beiträge zur Archäozoologie und Prähistorischen Anthropologie* 11: 137-141.
- Hansen, M.H. 2000. *A comparative study of thirty City-State cultures. An investigation conducted by the Copenhagen Polis Centre*. Copenhagen: C.A.Reitzels Verlag.
- Hansen, M.H. (ed) 2002. *A comparative study of six city-state cultures*. Copenhagen: The Danish Royal Academy.
- Haselgrove, C. 1995. Late Iron Age society in Britain and north-west Europe: structural transformation or superficial change? In: Arnold, B. and Gibson, D.B. (eds). *Celtic chiefdom, Celtic state. The evolution of complex social systems in prehistoric Europe*. Cambridge: Cambridge University Press: 81-95.
- Haselgrove, C. 2000. The character of oppida in Iron Age Britain. In: Guichard, V., Sievers, S. and Urban, O.H. (eds). *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS 'Archéologie de la Bourgogne' (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 103-110.
- Haselgrove, C. (ed) 2006. *Celtes et Gaulois. L'archéologie face à l'histoire. Les mutations de la fin de l'âge du Fer*. Actes de la table ronde de Cambridge 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne: Centre archéologique européen.
- Haselgrove, C. 2006. Avant-propos. In: Haselgrove, C. (ed) *Celtes et Gaulois. L'archéologie face à l'histoire. Les mutations de la fin de l'âge du Fer*. Actes de la table ronde de Cambridge 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne: Centre archéologique européen: 9-11.
- Haselgrove, C. 2007. The age of enclosure: Later Iron Age settlement and society in northern France. In: Haselgrove, C. And Moore, T. 2007. *The late Iron Age in Britain and beyond*. Oxford: Oxbow books: 492-521.
- Haselgrove, C. and Moore, T. (eds) 2007. *The late Iron Age in Britain and beyond*. Oxford: Oxbow books.
- Heinen, H. 1985. *Trier und das Trevererland in römischer Zeit*. Trier: Spee Verlag.
- Hendry, J. 1999. *An introduction to social anthropology. Other people's worlds*. Basingstoke: MacMillan Press LTD.
- Hill, J.D. 2006. Are we any closer to understanding how late Iron Age societies worked (or did not work)? In: Haselgrove, C. (ed) *Les mutations de la fin de l'âge du Fer*. Actes de la

- table ronde de Cambridge, 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne : Centre archéologique européen: 169-179.
- Hill, J.D. and Cumberpatch C.G. (eds) 1995. *Different Iron Ages. Studies on the Iron Age in temperate Europe*. (BAR international series 602). Oxford: Hadrian book Ltd.
- Hüssen, C.-M. and Leicht, M. 2003. Manching und kein Ende? In: Ebner, D. et al. (eds) *Das archäologisches Jahr in Bayern 2002*: 58-60.
- Jacobi, G. 1974. *Werkzeug und Gerät aus dem Oppidum von Manching*. (Die Ausgrabungen in Manching 5). Wiesbaden: Franz Steiner Verlag.
- Jansova, L. 1983. *O počátcích latenské fortifikace v Čechách. Závist und Hrazany an der Schwelle der Latènezeit*. (Studie Archeologického ústav Československé Akademie věd v Brně. Ročník XI.1). Brno: Archeologický ústav ČSAV v Brně.
- Jansová, L. 1986. *Hrazany. Das keltische Oppidum in Böhmen. I: Die Befestigung und die anliegende Siedlungsbebauung*. Prague: Archeologické ústave ČSAV.
- Jansová, L. 1988. *Hrazany. Das keltische Oppidum in Böhmen. II: Die Gehöfte in der mittleren Senkung*. Prague: Archeologické ústave ČSAV.
- Jansová, L. 1992. *Hrazany. Das keltische Oppidum in Böhmen. III: Die Besiedlung der Abhänge der Červenka*. Prague: Archeologické ústave ČSAV.
- Jerem, E., Krenn-Leib, A., Neugebaure, J.-W. and Urban, O.H. (eds) 1996. *Die Kelten in den Alpen und an der Donau*. Akten des Internationalen Symposions St.Pölten, 14.-18. Oktober 1992. Budapest: Archaeolingua Alapítvány
- Johnson, M. 1999. *Archaeological theory: an introduction*. Oxford: Blackwell Publishing.
- Kaenel, G. 2006. Agglomérations et oppida de la fin de l'âge du Fer. Une vision synthétique. In: Haselgrove, C. (ed) *Celtes et Gaulois. L'archéologie ace à l'Histoire. Les mutations de la fin de l'âge du Fer*. Actes de la table ronde de Cambridge 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne: Centre archéologique européen: 17-39.
- Kappel, I. 1969. *Die Graphitonkeramik von Manching*. (Die Ausgrabungen in Manching 2). Wiesbaden: Franz Steiner Verlag.
- Kellner, H.-J. 1990. *Die Münzfunde von Manching und die keltischen Fundmünzen aus Südbayern*. (Die Ausgrabungen in Manching 12). Stuttgart: Franz Steiner Verlag.
- Kent, R.G. (transl). 1938 (reprinted 1999). *Varro. On the Latin language*. Vol 1: books V – VII. The Loeb Classical Library. London and Cambridge: Harvard University Press.
- Knopf, T., Leicht, M. and Sievers, S. 2000. Die grossen süddeutschen Oppida Heidengraben, Manching und Kelheim. In: Guichard, V., Sievers, S. and Urban, O.H. (eds) *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du

- CNRS 'Archéologie de la Bourgogne' (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 141-149.
- Krämer, W. 1950. Ein aussergewöhnlicher Latènefund aus dem Oppidum von Manching. In: Behrens, G. and Werner, J. (eds) *Reinecke Festschrift zum 75. Geburtstag von Paul Reinecke an 25. September 1947*: 84-95.
- Krämer, W. 1961. Fremder Frauenschmuck aus Manching. *Germania* 39: 305-322.
- Krämer, W. 1982. Graffiti auf Spätlatènekeramik aus Manching. *Germania* 60.2: 489-499.
- Krämer, W. 1985. *Die Grabunde von Manching und die Latènezeitlichen Flachgräber in Südbayern*. (Die Ausgrabungen in Manching 9). Stuttgart: Franz Steiner Verlag.
- Krämer, W. 1997. Keltische Gewichte aus Manching. *Archäologischer Anzeiger* 1997: 73-78.
- Krämer, W. and Schubert, F. 1970. *Die Ausgrabungen in Manching 1955-1961. Einführung und Fundstellenübersicht*. (Die Ausgrabungen in Manching 1). Wiesbaden: Franz Steiner Verlag.
- Krämer, W. et al 1989. Das eiserne Ross von Manching. *Germania* 67.2: 519-539.
- Kuhrt, A. 1998. The old Assyrian merchants. In: Parkins, H. and Smith, Ch. (eds) *Trade, traders and the ancient city*. London: Routledge: 16-30.
- Kunkel, O. 1961. Zur Frage keltischer Glasindustrie. *Germania* 39: 322-329)
- Lange G. 1983. *Die menschliche Skelettreste aus dem Oppidum von Manching*. (Die Ausgrabungen in Manching 7). Wiesbaden: Franz Steiner Verlag.
- Langton, J. 1975. Residential patterns in pre-industrial cities: some case studies from seventeenth-century Britain. *Transactions of the institute of British geographers* 65: 1-27.
- Lippold, A. 1979. Notitia Dignitatum. In: Ziegler, K. and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike*. Volume 4: 166-167.
- Lorenz, H. and Gerdson, H. 2004. *Chorologische Untersuchungen in dem spätkeltischen Oppidum bei Manching am Beispiel der Grabungsflächen der Jahre 1965-1967 und 1974. / Fundstellenübersicht der Grabungsjahre 1961-1974*. (Die Ausgrabungen in Manching 16). Stuttgart: Franz Steiner Verlag.
- Maier, F. 1970. *Die bemalte spätlatène-keramik von Manching*. (Ausgrabungen in Manching 3). Wiesbaden: Franz Steiner Verlag.
- Maier, F. 1990. Das Kultbäumchen von Manching. Ein Zeugnis hellenistischer und keltischer Goldschmiedekunst aus dem 3. Jahrhundert v.Chr. *Germania* 68.1: 129-164.
- Maier, F. 1991. Le petit arbre cultuel de Manching. In: Bruneaux, J.-L. (ed) *Les sanctuaires celtiques et leurs rapports avec le monde méditerranéen*. Actes du colloque de St. Riquier du

8 au 11 novembre 1990 organisé par la Direction des Antiquités de Picardie et l'UMR 126 du CNRS. Paris : Editions Errance 241-249.

Maier, F., Geilenbrügge, U., Hahn, E., Köhler, H.-J. and Sievers, S. (eds) 1992. *Ergebnissen der Ausgrabungen 1984-1987 in Manching*. (Die Ausgrabungen in Manching 15). Stuttgart: Franz Steiner Verlag.

Maier, F. and Köhler, H.-J. 1992. Der nördliche Wall. In: Maier, F. et al. (eds) *Ergebnissen der Ausgrabungen 1984-1987 in Manching*. (Die Ausgrabungen in Manching 15). Stuttgart: Franz Steiner Verlag: 340-356.

Metzler, J. 1993. Les sépultures de l'aristocratie en Gaule Belgique, in: Cliquet, D. et al. (eds) *Les Celtes en Normandie: Les rites funéraires en Gaule (III^{ème}-I^{er} siècle avant J.-C.)*. Actes du 14^{ème} colloque de l'Association Française pour l'Etude de l'Age du Fer. Evreux – mai 1990. (Revue Archéologique de l'Ouest, supplément 6). Rennes: Association pour la diffusion des recherches archéologiques dans l'Ouest de la France : 267-277

Metzler, J. 1995. *Das Treverische Oppidum auf dem Titelberg. Zur Kontinuität zwischen der spätkeltischen und der frühromischen Zeit in Nord-Gallien*. 2 vols. (Dossiers d'archéologie du musée d'histoire et d'art III). Luxemburg: Musée d'histoire et d'art.

Metzler, J. 2002. Réflexions sur les sépultures aristocratiques en pays trévire. In: Guichard, V. and Perrin, F. (eds). *L'aristocratie celte à la fin de l'Age du Fer* (Collection Bibracte 5). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray : 175-186.

Metzler, J. 2003. Fouilles du sanctuaire Celtique et Gallo-Romain de l'oppidum du Titelberg, in: Reddé, M. (ed.) *La naissance des villes dans l'Antiquité*. Paris: De Boccard: 263-269.

Metzler, J., Waringo, R., Bis, R. and Metzler-Zens, N. 1991. *Clemency et les tombes de l'aristocratie en Gaule Belgique*. (Dossiers d'archéologie du musée national d'histoire et d'art I). Luxemburg.

Metzler-Zens, N., Metzler-Zens, J. and Méniel, P. 1999. *Lamadelaine. Une nécropole de l'oppidum du Titelberg*. (Dossiers d'archéologie du musée d'histoire et d'art VI.) Luxemburg: Musée d'histoire et d'art.

Metzler, J., Bis, R., Gaeng, C. and Méniel, P. 2000. Vorbericht zu den Ausgrabungen im keltisch-römischen Heiligtum auf dem Titelberg, in: Haffner, A. and von Schnurbein, S. (eds). *Kelten, Germanen, Römer im Mittelgebirgsraum zwischen Luxemburg und Thüringen*. Akten des Internationalen Kolloquiums zum DFG-Schwerpunktprogramm "Romanisierung" vom 28. bis 30. September 1998 in Trier. Bonn: Habelt: 431-445.

Metzler, J., Gaeng, C. and Méniel, P. 2006a. Oppida et espaces publics. In: Haselgrove, C. (ed). *Celtes et Gaulois. L'archéologie face à l'histoire. Les mutations de la fin de l'âge du Fer*. Actes de la table ronde de Cambridge 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne: Centre archéologique européen: 201-224.

Metzler, J., Gaeng, C. and Méniel, P. 2006b. Religion et politique. L'oppidum trévire du Titelberg. In: Goudineau, C. (ed) *Religion et société en Gaule*. Edité à l'occasion de

- l'exposition 'Par Toutatis! La religion des Gaules' Lyon, Musée gallo-romain de Lyon-Fourrière 30 juin 2006 – 7 janvier 2007. Paris: Editions Errance: 190-202.
- Meyer, M. and Hansen, S. (eds) *Parallele Raumkonzepten*. Conference in Berlin. March 2010. Forthcoming
- Millett, M. 1991. Roman towns and their territories: an archaeological perspective. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient world*. (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge.: p. 169-189.
- Morgan, C. and Coulton, J.J. 1997. The polis as a physical entity. In: Hansen, M.H. (ed) *The polis as an urban centre and as a political community*: 87-144.
- Morris, I. 1991. The early polis as city and state. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 24-57.
- Motyková, K., Drda, P. and Rybová, A. 1978. Metal, glass and amber objects from the acropolis of Závist. *Památky archeologické* LXIX: 259-343.
- Motyková, K., Drda, P. and Rybová, A. 1984. Opevnění Pozdní Halštatského a časně laténského hradiště Závist. Fortification of the Late Hallstatt and Early La Tène stronghold of Závist. *Památky archeologické* LXXV: 331-444.
- Osborne, R. 1991. Pride and prejudice, sense and subsistence: exchange and society in the Greek city. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: 119-145.
- Owens, E.J. 1991. *The city in the Greek and Roman world*. Routledge: London.
- Pacione, M. *The city. Critical concepts in the social sciences. Volume I: The city in global context*. London and New York: Routledge
- Parkins, H. 1998. Time for change? Shaping the future of the ancient economy. In: Parkins, H. and Smith, Ch. (eds) *Trade, traders and the ancient city*. London: Routledge p. 1-15.
- Parkins, H. and Smith, Ch. (eds) 1998. *Trade, traders and the ancient city*. London: Routledge.
- Paterson, J. 1998. Trade and traders in the Roman world: scale, structure and organisation. In: Parkins, H. and Smith, Ch. (eds) *Trade, traders and the ancient city* London: Routledge: p. 149-167.
- Patterson, J.R. 1991. Settlement, city and elite in Samnium and Lycia. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 146-168.

- Perring, D. 1991. Spatial organisation and social change in Roman towns. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 273-293.
- Peters, M. 2002. Entwicklung und Veränderung der Flusslandschaft im Bereich Ingolstadt/Manching. In: Dobiak, C., Sievers, S. and Stöllner, Th. (eds) *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*. Akten des Internationalen Kolloquiums in Hallein/Bad Dürrnberg. 7-11 Oktober, 1998. Bonn: Rudolf Habelt GmbH: 207-218.
- Pingel, V. 1971. *Die Glatte Drehscheiben-Keramik von Manching*. (Die Ausgrabungen in Manching 4). Wiesbaden: Franz Steiner Verlag.
- Pöschl, V. (ed) 1980 *Thesaurus Linguae Latinae. Volume 9.2: O – Ozynosus*. Leipzig: B.G. Teubner Verlagsgesellschaft KG.
- Potter, T.W. 1991. Towns and territories in Southern Etruria. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 191-209.
- Poux, M. 2006. Religion et société à la fin de l'âge du Fer. Systèmes (en)clos et logiques rituelles. In: Haselgrove, C. (ed) *Celtes et Gaulois. L'archéologie face à l'histoire. Les mutations de la fin de l'âge du Fer*: 181-199.
- Radke, G. 1979. Itineraria. In: Ziegler, K. and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike. Volume 2: Dicta Catonis – Iuno*. München: Deutsches Taschenbuch Verlag: 1488-1490.
- Renfrew, C. and Bahn, P. 2004. *Archaeology: theories, methods and practice*. 4th ed. London: Thames and Hudson.
- Reichart, J. 1937. Neue Bodenfunde von Manching. *Sammelblatt des historischen Vereins Ingolstadt* 55: 5-29.
- Reinecke, P. 1934/1935. Bodendenkmale spätkeltischer Eisengewinnung an der untersten Altmühl. *Bericht der Römisch-Germanischen Kommission* 24/25: 128-228.
- Rich, J. and Wallace-Hadrill, A. (eds) 1991. *City and country in the ancient world*. (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge.
- Rieder, K.H. and Tillmann, A. (eds) *Archäologie um Ingolstadt. Die archäologischen Untersuchungen beim Bau der B16 und der Bahnverlegung*. Kipfenberg: Hercynia Verlag.
- Rihll, T.E. and Wilson, A.G. 1991. Modelling settlement structures in Ancient Greece: new approaches to the polis. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 59-95.
- Rochna, O. 1961. Zur Herkunft der Manchinger Sapropelit-Ringe. *Germania* 39: 329-354.

- Rodwell, W.J. 1976. Coinage, oppida and the rise of Belgic power in south-eastern Britain. In: Cunliffe, B. (ed) *Oppida: the beginnings of urbanisation in barbarian Europe*: 181-367.
- Rowlett, M.R., Thomas, L.T., Rowlett, E. S.-J. 1982. Stratified Iron Age House Floors on the Titelberg, Luxembourg. *Journal of Field Archaeology* 9.3: 301-312.
- Salač, V. 1998. Die Bedeutung der Elbe für die böhmisch-sächsischen Kontakte in der Latènezeit. *Germania* 76.2: 573-617.
- Salač, V. 1990. Entwicklung und Struktur der Hallstatt- und Latènezeitlichen Eisenverhüttung und Eisenverarbeitung im Erzgebirgsvorlandes im Lichte neuer Funde. *Památky archeologické* LXXXI : 208-232.
- Salač, V. 2000. The oppida in Bohemia. Wrong step in the urbanization of the country? In: Guichard, V., Sievers, S. and Urban, O.H. (eds) 2000. *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS "Archéologie de la Bourgogne" (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 151-164.
- Salač, V. 2002. Kommunikationswege, Handel und das Ende der Oppidazivilisation. In: Dobiat, C., Sievers, S. and Stöllner, Th. (eds) *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*. Akten des Internationalen Kolloquiums in Hallein/Bad Dürrnberg von 7. bis 11. Oktober 1998. Bonn: Rudolf Habelt GmbH: 349-357.
- Schäfer, A. 2002. Manching – Kelheim – Berching-Pollanten. Eisen als Wirtschaftsfaktor. In: Dobiat, C., Sievers, S. and Stöllner, Th. (eds) *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*. Akten des Internationalen Kolloquiums in Hallein/Bad Dürrnberg. 7-11 Oktober, 1998. Bonn, Rudolf Habelt GmbH: 219-241.
- Schäffer, J. and Steger, U. 1985. Zu neuen Tierknochenfunde aus dem Oppidum von Manching. *Germania* 63.1: 57-73.
- Schmidt, P.L. 1979. Festus. In: Ziegler, A and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike* 2. München : Deutsches Taschenbuch Verlag: 541.
- Schubert, F. 1983. Neue Ergebnisse zum Bebauungsplan des Oppidums von Manching. *Bericht der Römisch-Germanischen Kommission* 64: 5-19.
- Schubert, F. 1994. Zur Mass- und Entwurfslehre keltischer Holzbauten im Oppidum von Manching. *Germania* 72.1: 133-192.
- Schubert, F. 1995. Keltische Umgangstempel von Ingolstadt-Zuchering? In: Rieder, K.H. and Tillmann, A. (eds) *Archäologie um Ingolstadt. Die archäologischen Untersuchungen beim Bau der B16 und der Bahnverlegung*. Kipfenberg: Hercynia Verlag: 127-185.
- Schubert, F. 2001. Ein neues Schritzeugnis aus dem Oppidum von Manching. *Sammelblatt des historischen Vereins Ingolstadt* 110: 37-55.

- Schulze-Forster, J. 2000. 'Frühe' Keltische Oppida in Oberitalien. In: Guichard, V., Sievers, S. and Urban, O.H. (eds) 2000. *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS 'Archéologie de la Bourgogne' (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 31-35.
- Schwab, R. 2002. Evidence for carburized steel and quench-hardening in the 'Celtic' oppidum of Manching. *Historical metallurgy* 36.1: 6-16.
- Schwab, R., Heger, D., Höppner, B and Pernicka, E. 2009. The provenance of iron artefacts from Manching: a multi-technique approach. *Archaeometry* 48.3: p. 433-452.
- Sharples, N. 2010. *Social relations in later prehistory*. Oxford: Oxford University Press.
- Shaw, B.D. and Saller, R.P. (eds) 1981. *Economy and society in ancient Greece by M.I.Finley*. London: Chatto and Windus.
- Sievers, S. 1989. Die Waffen von Manching unter Berücksichtigung des Überganges von LT C zu LT D. Ein Zwischenbericht. *Germania* 67.1: 97-120.
- Sievers, S. 1991. Armes et sanctuaires à Manching. In: Bruneaux, J.-L. (ed) *Les sanctuaires celtiques et leurs rapports avec le monde méditerranéen*. Actes du colloque de St-Riquier du 8 au 11 novembre 1990, organisé par la Direction des Antiquités de Picardie et l'UMR 126 du CNRS. Paris: Editions Errance: 146-155.
- Sievers, S. 1996. Manching im lichte neuer Grabungsergebnisse. In: Jerem, E. et al. (eds) 1996. *Die Kelten in den Alpen und an der Donau*. Akten des Internationalen Symposiums St.Pölten, 14.-18. Oktober 1992. Budapest: Archaeolingua Alapítvány: 321-334.
- Sievers, S. 2002. Les attestations d'une aristocratie de la civilisation des oppida dans le sud de l'Allemagne. In: Guichard, V. and Perrin, F. (eds) *L'aristocratie Celte à la fin de l'âge du Fer (du IIe siècle avant J.-C. au Ier siècle après J.-C.)*: 167-173.
- Sievers, S. 2003. *Manching – Die Keltenstadt*. (Führer zu archäologischen Denkmälern in Bayern. Oberbayern 3). Stuttgart: Konrad Theiss Verlag.
- Sievers, S. et al. 1998. Vorbericht über die Ausgrabungen 1996-1997 im Oppidum von Manching. *Germania* 76.2: 619-672.
- Sievers, S. et al. 2002. Vorbericht über die Ausgrabungen 1998-1999 im Oppidum von Manching. *Germania* 78.2: 355-394.
- Sjoberg, G. 1960. *The preindustrial city, past and present*. New York, Free Press.
- Smith, C.A. 1976. Exchange systems and the spatial distribution of elites: the organisation of stratification in agrarian societies. In: Smith, C.A. (ed) *Regional Analysis*. London, Academic Press: 309-374.

- Smith, C.A. (ed) 1976. *Regional Analysis*. London, Academic Press.
- Snodgrass, A.M. 1991. Archaeology and the study of the Greek city. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 1-23.
- Stöckli, W.E. 1974. Bemerkungen zur räumlichen und zeitlichen Gruppierung der Funde im Oppidum von Manching. *Germania* 52.2: 368-383.
- Stöckli, W.E. 1979. *Die Grob- und Importkeramik von Manching*. (Die Ausgrabungen in Manching 8). Wiesbaden: Franz Steiner Verlag.
- Szabo, M. 1992. *Les Celtes de l'Est. Le Second Age du Fer dans la cuvette des Carpates*. Paris: Editions Errance.
- Tarpin, M. 2000. Urbs et oppidum. Le concept urbain dans l'Antiquité romaine. In: Guichard, V., Sievers, S. and Urban, O.H. (eds) *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organisé par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS "Archéologie de la Bourgogne" (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 27-29.
- Terrenato, N. and Motta, L. 2006. The origins of the state par excellence. Power and society in Iron Age Rome. In: Haselgrove, C. (ed). *Celtes et Gaulois. L'archéologie face à l'histoire. Les mutations de la fin de l'âge du Fer*. Actes de la table ronde de Cambridge 7-8 juillet 2005. (Collection Bibracte 12/4). Glux-en-Glenne: Centre archéologique européen: 225-234.
- Thomas, H.L., Rowlett, R.M. and Rowlett, E.S. 1975. The Titelberg: a hill fort of Celtic and Roman times. *Archaeology* 28.1: 55-57.
- Thomas, H.L., Rowlett, R.M. and Rowlett, E. S.-J. 1976. Excavations on the Titelberg, Luxembourg. *Journal of Field Archaeology* 3.3: 241-259.
- Tomlinson, T. 1992. *From Mycenae to Constantinople. The evolution of the ancient city*. London and New York: Routledge.
- Trappe, M. 1998. Petrographische Untersuchungen an Gesteinsfundstücken. In: Sievers, S. et al. (eds) Vorbericht über die Ausgrabungen 1996-1997 im Oppidum von Manching. *Germania* 76.2: 652-655.
- Vance, J.E. 1971. Land assignment in the precapitalist, capitalist and postcapitalist city. *Economic geography* 47: 101-120.
- Van den Boom, H. 2000. Urbanisationsprozesse an der nordöstlichen Grenze der keltischen Welt. In: Guichard, V., Sievers, S. and Urban, O.H. (eds) 2000. *Les processus d'urbanisation à l'âge du Fer. Eisenzeitliche Urbanisationsprozesse*. Actes du colloque organise par Arbeitsgemeinschaft Eisenzeit bei den Deutschen Verbänden für Altertumsforschung, Le Centre archéologique européen du Mont Beuvray, L'UMR 5594 du CNRS "Archéologie de la

- Bourgogne' (Glux-en-Glenne, 8-11 juin 1998). (Collection Bibracte 4). Glux-en-Glenne: Centre archéologique européen du Mont Beuvray: 171-178.
- Van Endert, D. 1987. *Das Osttor von Manching*. (Die Ausgrabungen in Manching vol 10). Stuttgart: Franz Steiner Verlag.
- Van Endert, D. 1991. *Die Bronzefunde aus dem Oppidum von Manching*. (Die Ausgrabungen in Manching 13). Stuttgart: Franz Steiner Verlag.
- Vanneste, D. 1994. *Aardrijkskunde. Sociale geografie. Cursus voor 1^e en 2^e kandidatuur geschiedenis*. Leuven: Instituut voor sociale en economische geografie.
- Végh, Z. 1979. Pomponius. In: Ziegler, A and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike*. Vol 4. München: Deutsches Taschenbuch Verlag: 1039.
- Volkman, H. 1979. Oppidum. In: Ziegler, K. and Sontheimer, W. *Der Kleine Pauly. Lexikon der Antike. Band 4: Nasidius-Scaurus*. München: Deutsche Taschenbuch Verlag: 316-317.
- Waldhauser, J. 1984. Les fortifications celtiques de la période La Tène C-D1 en Bohème. In: Cahen-Delhay, A., Duval, A., Leman-Delerive, G. and Leman, P. (eds) *Les Celtes en Belgique et dans le Nord de la France*. Lille: Revue du Nord: 265-270.
- Waldhauser, J. 1979. Beitrag zum Studium der keltischen Siedlungen, Oppida und Gräberfelder in Böhmen. In: Duval, P.-M. and Kruta, V. (eds) *Les mouvements celtiques du Ve au Ier siècle avant notre ère*. Actes du XXVIII^e colloque organisé à l'occasion du IX^e congrès internationale des sciences préhistoriques et protohistoriques. Nice, le 19 septembre 1976. Paris: Editions du centre nationale de la recherche scientifique: 117-156.
- Waldhauser, J. 2002. Wirtschaftliche Strukturen in offenen Siedlungen und Verkehrswege der Latènezeit in Böhmen. In: Dobiat, C., Sievers, S. and Stöllner, Th. (eds) *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*. Akten des Internationalen Kolloquiums in Hallein/Bad Dürrnberg von 7. bis 11. Oktober 1998. Bonn: Rudolf Habelt GmbH: 273-286.
- Wallace-Hadrill, A. 1991a. Elites and trade in the Roman empire. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. 241-272.
- Wallace-Hadrill, A. 1991b. Introduction. In: Rich, J. and Wallace-Hadrill, A. (eds) *City and country in the ancient World* (Leicester-Nottingham Studies in Ancient Society 2). London and New York: Routledge: p. IX-XVIII.
- Wells, P.S. 1985. Mediterranean trade and culture change in Early Iron Age Europe. In: Champion, T.C. and Megaw, J.V.S. (eds). *Settlement and Society: aspects of West European prehistory in the first millennium BC*. Leicester: University Press: 69-89.
- Wells, P.S. 1995a. Settlement and social systems at the end of the Iron Age, in: Arnold, B. and Gibson, D.B. (eds) *Celtic chiefdom, Celtic state. The evolution of complex social systems in prehistoric Europe*. Cambridge: Cambridge University Press: 88-95.

- Wells, P.S. 1995b. The La Tène period in Germany. In: Hill, J.D. and Cumberpatch C.G. (eds) *Different Iron Ages. Studies on the Iron Age in temperate Europe*. (BAR international series 602). Oxford: Hadrian book Ltd: 7-22.
- Wieland, G. 1999. *Keltische Viereckschanzen. Einem Rätsel auf der Spur*. Stuttgart : Kongrad Theiss Verlag.
- Will, E.L. 1987. The Roman amphorae from Manching: a reappraisal. *Bayerischen Vorgeschichtsblätter* 52: 21-36.
- Woolf, F. 1993. Rethinking the oppida. *Oxford Journal of Archaeology* 12.2: 223-234.
- Ziegler, K. and Sontheimer, W. 1979. *Der Kleine Pauly. Lexikon der Antike*. 5 vol. München: Deutsche Taschenbuch Verlag.
- Zschietzschmann, W. 1979. Athenai. In: Ziegler, K. and Sontheimer, W. (eds) *Der Kleine Pauly. Lexikon der Antike*. Volume 1: Aachen-Dichalkon München: Deutscher Taschenbuch Verlag: 686-701.
- <URL: <http://www.dainst.org>> *Deutsches Archäologisches Institut*. [accessed 11 November 2000]

Appendix 1: Typology of *oppidum* ramparts and gates

As research on *oppida* progressed, scholars identified and labelled specific types of ramparts and gates. This typology is based on Fichtl's publication '*La ville Celtique. Les oppida de 150 av. J.-C. à 15 ap. J.-C.*' (2000).

1. The ramparts

Every rampart is basically an earthen ramp with a stone revetment and an internal wooden framework. There are however many variations on this theme. The material variations are a logical result of the specific geological and natural circumstances at the individual sites. The architectural variations on the other hand reflect cultural differences and thus result in separate architectural types. Fichtl remarks that the architectural typology remains highly theoretical. First, in fact every rampart is an original one and some ramparts are even built according to two different types at the same time (Fichtl 2005: 47-49). Second, the ramparts do not last long. Due to various reconstructions there is often a succession of different types of ramparts (Fichtl 2005: 57).

1. Ramparts with horizontal posts

1.1 The Ehrang type

The Ehrang type is named after a small defended site Ehrang in the Eifel mountains. This rampart type has a wooden framework which consists of different levels of regular grids made of horizontal posts. The space inside the grids is filled with earth and stones (Fichtl 2005: 49-50). The front and back revetments of the ramparts are walls of stones in which the ends of the horizontal posts are visible (Figure 1).

1.2 The *murus gallicus* type

The name *murus gallicus* is mentioned by Caesar in the chapter of his '*De Bello Gallico*' (VII, 23) where he described the ramparts of the *oppidum* Bourges-Avaricum. Archaeologists

first used his term for the ramparts of the *oppidum* Murcens in 1887. From then on it became a common archaeological concept. The problem is that many excavators aimed to find a *murus gallicus* which led to less careful analyses of ramparts. Very often just any rampart which contains iron nails is called *murus gallicus*. Fichtl (2005: 50-51; fig. 1) states that this is the most famous, yet the least known type. The *murus gallicus* is similar to the Ehrang type. There are only two differences. First, large iron nails or pins were used to fix the posts to one another. These nails were often between 20 and 30 cm long. Second, the internal revetment is supported by a ramp with gentle slope (Figure 1).

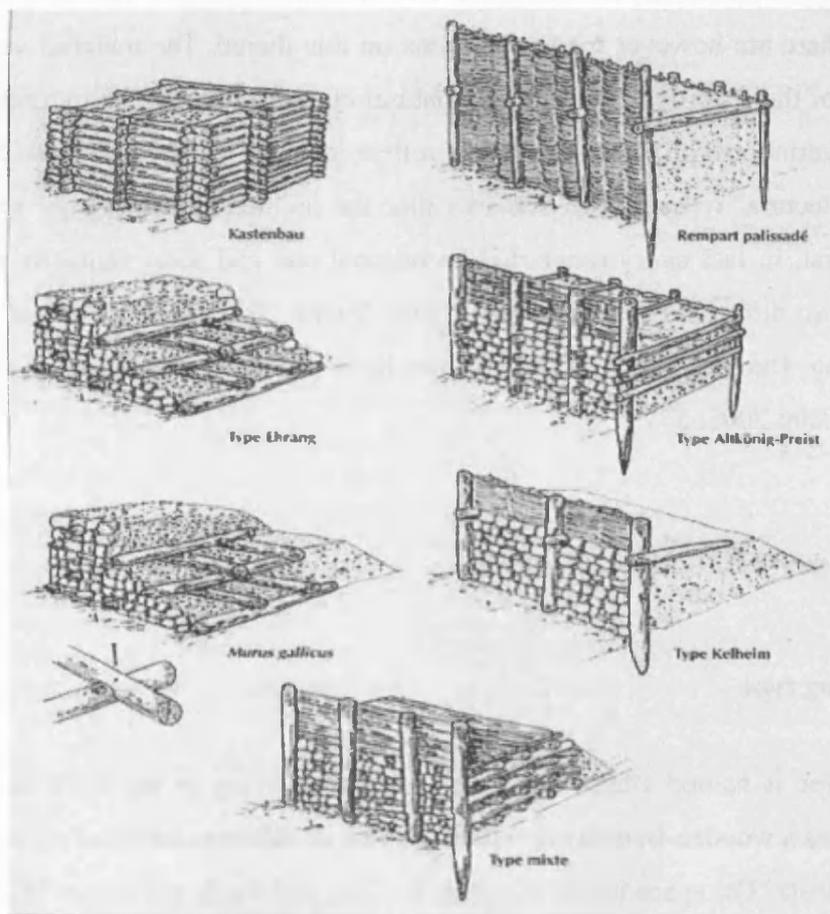


Figure 1: Main rampart types, according to O. Buchsenschutz and I. Ralston (Fichtl 2000: 48).

The *murus gallicus* type is later than the Ehrang type. The Ehrang type dates to the period from the end of Hallstatt until the middle of the La Tène period, while the *murus gallicus* is found only on late La Tène sites. Therefore the latter is often considered to be the improvement of the first. It appears that the Ehrang type is used for smaller fortifications only.

The *murus gallicus* type is found almost exclusively in the west of Europe (Figure 2; Fichtl 2005: 51-53).

2. *Pfostenschlitz* ramparts or ramparts with vertical posts

These *Pfostenschlitz*-ramparts are mainly located in central and east Europe (Figure 3). The Altkönig-Preist type is contemporary to the Ehrang type. They were often used indifferently in the same region (Fichtl 2005: 54).

2.1 The Altkönig-Preist type

This type is named after two small German fortified sites: Altkönig in the Taunus and Preist in the Hunsrück mountains. Typical are the large vertical posts in the front and back revetment. Horizontal posts connected the vertical ones of the front with those at the back (Figure 1; Fichtl 2005: 53)

2.2 The Kelheim type

This type is named after the Bavarian *oppidum* Kelheim. It evolved from the Altkönig-Preist type. There are two differences. First, the internal wall is replaced by a ramp just like the *murus gallicus*. Second, horizontal posts are used only in the upper part of the rampart (Figure 1; Fichtl 2005: 53-54).



Figure 2: Distribution of the *murus gallicus* type of ramparts (Van Endert 1987: 85, fig. 18.1).



Figure 3: Distribution of the *Pfostenschlitz* type of ramparts (Van Endert 1987: 85, fig. 18.2).

3. Variations on the ramparts with posts

The variations are numerous. The rampart of Mont-Vully, for instance, resembles the Kelheim type since it has vertical posts in the revetment and a ramp at the back. But, it also has horizontal posts which connect the vertical ones to one another (Fichtl 2005: 54, fig. 2).



Figure 4: Reconstruction of the ramparts of Mont Vully (Fichtl 2005: 54).

4. Ramps without posts: The Fécamp type

The ramparts of the type Fécamp are mainly massive ramps made of earth or all sorts of material. They have no revetment and no wooden framework. These ramps are several metres high and there is a large flat ditch in the front. In many cases the Fécamp type corresponds to the last phase of a rampart. In that case the ramp is made of the rubble of previous phases. This type mainly occurs in the north west of Gaul, although the *oppidum* of Závist is also an example. (Figure 5; Fichtl 2005: 56-57).

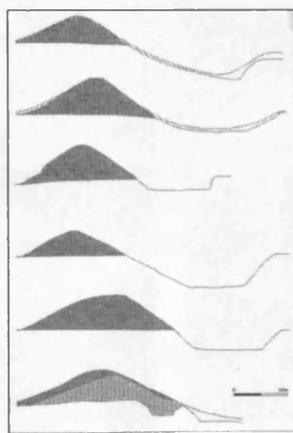


Figure 5: Profile of Fécamp type ramparts (Fichtl 2005: 56).

2. The gates

There is no classification of *oppidum* gates. They are built according to various, individual plans. However, some types are more common than others.

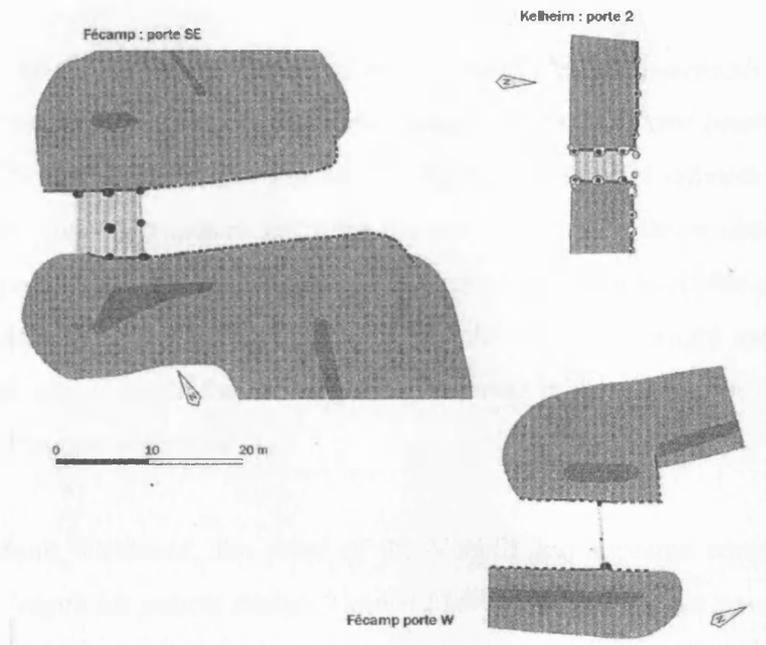


Figure 6: Types of *oppidum* gates (Fichtl 2005: 65).

The Zangentor gate is the most characteristic and most common gate type. At the entrance both ramparts bend inwards at an angle of 90°. These wings run parallel and thus create a long passageway that might reach up to 36 metres (Figure 6: Fécamp SE gate). There are many variations to this type. These variations are basically confined to the form of the passageway. It can for instance be oblique or funnel-shaped (Fichtl 2005: 64). Less common is the simple interruption of the rampart, as for instance gate 2 at Kelheim (Figure 6), or the zigzag entrance, as for instance gate W at Fécamp (Figure 4) (Fichtl 2005: 64).

Appendix 1: Typology of *oppidum* ramparts and gates.

Appendix 2: Caesar's accounts on closing off gates

The quotes of Caesar are translated by Edwards (1917). For the word *oppidum* I prefer to use the Latin word, because Edwards's translation 'city' or 'town' involves an interpretation which is the basis for the main research question of this dissertation.

- DBG 2.32-33 on the *oppidum* Vienna of the Aduatuci: '*portis patefactis eo die pace sunt usi. Sub vesperum Caesar portas claudi militesque ex oppido exire iussit, ne quam noctu oppidani ab militibus iniuriam acciperent. ... Postridie eius diei refractis portis, cum iam defenderet nemo, atque intromissis militibus nostris...*' 'So they threw open their gates, and on that day enjoyed the benefit of peace. At eventide Caesar ordered the gates to be closed and the troops to leave the *oppidum*, in order that the townsfolk might suffer no outrage at their hands in the night. ... On the morrow the gates were broken open, for there was no more defence, and our troops were sent in ..'

- DBG 3, 17 about Viridovix, the chief of the Venelli and supreme commander of all the revolted states: '*atque his paucis diebus Aulerici Eburovices Lexoviique senatu suo interfecto, quod auctores belli esse nolebant, portas clausurunt seque cum Viridovice coniunxerunt*' 'Further, in the last few days the Aulerici, Eburovices, and the Lexovii, after putting their senate to death because they refused to approve the war, closed their gates and joined Viridovix'

- DBG 7, 12 on the *oppidum* of Noviodunum: '*Quem simul atque oppidani conspexerunt atque in spem auxilii venerunt, clamore sublato arma capere, portas claudere, murum complere coeperunt*' 'The moment the people of the *oppidum* caught sight of them and conceived a hope of assistance, they raised a shout and began to take up their arms, to shut the gates, and to man the wall.

- DBG 7, 70 on a moment in the siege of the *oppidum* of Alesia when some Gauls in panic burst into the town '*Vercingetorix iubet portas claudi, ne castra nudentur.*' 'Vercingetorix ordered the gates to be shut, lest the camp should be deserted.'

- DBG 7, 70: *'hostes in fugam coniecti se ipsi multitudine impediunt atque angustioribus portis relictis coacervantur.'* 'the enemy were put to flight, and, hampering one another by sheer numbers, as the gates were left too narrow, were crowded together in a press'.

Appendix 3: *Viereckschanzen*⁵⁹

Viereckschanzen are contemporary to the *oppida* and they occur within the *oppidum* region. However their relationship to the *oppida* is still unclear. Therefore a brief excursion of this phenomenon is recommended. The formal definition of a *Viereckschanze* is generally acknowledged, but its function is highly debated. This appendix is based on the adequate summary of Wieland (1999), added to the views of scholars involved in *oppidum*-research.

1. Definition: the identification of *Viereckschanzen*

Viereckschanzen are square structures composed of an earthen ramp with front ditch, mostly without a berm and without any reinforcement. There is one gate in the middle of a side. It consists of a wide interruption of the rampart with slightly raised corners. The existence of a wooden tower is evidenced in each examined *Viereckschanze*. The *Viereckschanzen* are between 0.4 and 1.2 ha. The sides are in average 80-100 m long. The structures inside the *Viereckschanzen* are usually a square building in a corner and/or a large rectangular building at the back opposite the entrance. Very often there are also some deep shafts (Wieland 1999: 34, 44).

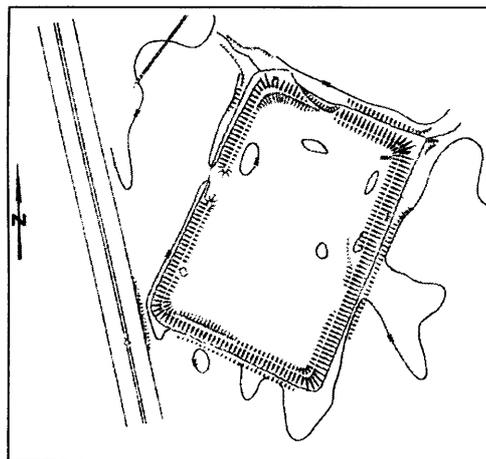


Figure 1: The *Viereckschanze* south of the *oppidum* of Manching.
(Krämer and Schubert 1970: 45, fig. 7).

⁵⁹ The German term *Viereckschanze* literally means ‘enclosure. It was first used by Reinecke (1910) and refers to his interpretation as fortifications (Wieland 1999: 12).

Viereckschanzen are mainly found in Bavaria and Baden-Württemberg, Germany, but also sporadically in the Czech Republic. The identification of similar French enclosures as *Viereckschanzen* is still debated (Wieland 1999: 12). Chronologically the *Viereckschanzen* occur in La Tène D1, or from the second century BC to the end of the first century BC. This period coincides with the heyday of the *oppida* (Wieland 1999: 69). It is not clear when *Viereckschanzen* emerged. There are various theories depending on one's interpretation of the structures. If *Viereckschanzen* are interpreted as ritual enclosures, their origin is traced back to rectangular sanctuaries of third century BC Gaul. If they are considered to be settlement structures, they are seen as the successors of the La Tène B enclosed village and La Tène C square palisaded homestead (Wieland 1999: 68). Many *Viereckschanzen* were burned down. Some time afterwards they were cleared and levelled off. They were still visited in Roman times but the exact function remains unclear (Wieland 1999: 71, 118-119).

2. Interpretation: the function of *Viereckschanzen*.

At present the function of *Viereckschanzen* is not clear. This is mainly due to the lack of large-scale excavations of *Viereckschanzen* and to the paucity of knowledge about settlement structures in the countryside (Wieland 1999: 79). The interpretation of the *Viereckschanze* has evolved from a Roman *castrum* or military camp in the nineteenth century, to a *temenos* or sanctuary from the 1960s onwards, and to a profane structure in recent years (Wieland 1999: 16-20). Still today it is highly debated whether *Viereckschanzen* have a religious or a profane function.

1. Religious functions

Traditionally *Viereckschanzen* are interpreted as religious places. The arguments are based on specific finds and on the structures found inside. An unusual large wooden post that is interpreted as cult object is found inside a shaft at the *Viereckschanzen* of Holzhausen and Tomerdingen. Three wooden animal statues are found in the shaft of Fellbach-Schmidlen. Therefore the shafts in *Viereckschanzen* are interpreted as ritual offering pits. The buildings inside the *Viereckschanzen* are identified as *Umgangsbauten*⁶⁰ and therefore considered to be

⁶⁰ *Umgangsbauten* are buildings with an encompassing gallery.

analogous to the later Gallo-Roman *fanum*⁶¹. The entrance of *Viereckschanzen* is never located in the north, which is comparable to Gallo-Roman temples. Some *Viereckschanzen* are located in the vicinity of old burial mounds (Wieland 1999: 37, 44-47, 73-77).

Schubert (1983: 18-19) interprets *Viereckschanzen* as *nemeta*⁶². He argues that inside the *Viereckschanzen* there is a large open space designed for cult activities. He interprets the shafts as offering or water shafts. Schubert refers to the sanctuary of Gournay-sur-Aronde and its central cult buildings and offering objects. Maier (1990: 157-159) shares the idea that *Viereckschanzen* are *nemeta*. He refers to the fact that Caesar mentioned cult- and gathering places in the open air, for instance the annual meetings of the druids (DBG VI 13). Maier connects the *Viereckschanzen* with the *oppida* because the *Viereckschanzen* in the vicinity of Manching are located outside or in front of a gate of the *oppidum*, and because the golden tree of Manching is often compared with the wooden posts found in *Viereckschanzen*. Buchsenschutz (1991: 107, 110) proposes a more general interpretation. He interprets the *Viereckschanzen* as the place for religious activities, as well as for banquets and justice. An argument in favour of the religious function would be the distribution of the *Viereckschanzen* which resembles that of sanctuaries in the countryside (Buchsenschutz 1991: 107, 110).

2. Profane functions

Recently the religious interpretation of *Viereckschanzen* has been challenged. The structures and objects can be interpreted in different ways. The shafts may well be normal water sources, and the posts and statues may be the result of the common custom to throw offerings in water sources. These objects that are found in the shafts therefore do not necessarily indicate that the entire *Viereckschanze* was sacred, and certainly not that every *Viereckschanze* was. The buildings inside the *Viereckschanzen* may well be houses or large barns. A north entrance is not only lacking in sanctuaries, but also in profane buildings at Manching. *Viereckschanzen* are sometimes compared to early Roman *villae* in South Germany that are enclosed by a wooden fence. Recent excavations demonstrate artisanal and economic activity in several *Viereckschanzen* (Wieland 1999: 38, 47, 53, 73-79, 88).

⁶¹ A *fanum* is a temple building composed of a central cella surrounded by a gallery.

⁶² A *nemeton* is the term for a Gaulic sanctuary or cult place.

Sievers (2002: 169), for instance, interprets *Viereckschanzen* as fortified elite residences. Her arguments are mainly based on, and the result of, similarities she observes between the buildings in *Viereckschanzen* and certain atypical structures in the oppidum of Manching which she argues to be elite buildings.

3. Multi-functional *Viereckschanzen*

The question whether *Viereckschanzen* have a profane or ritual function remains unresolved. For instance, even if shafts are mere wells it would not exclude a ritual function (Wieland 1999: 53). Wieland (1999: 73) asks the appropriate question as to how strictly the religious and the profane can be separated. I share the view of Wieland that combines the ritual and the profane.

Wieland (1999: 20, 71, 79) interprets *Viereckschanzen* as minor focal places that have various profane and religious functions for a small community living in a loosely spread settlement. More specifically, a *Viereckschanze* may serve as a refuge, a storage place, a place to secure important goods such as grain and animals, and as a gathering place, market place and cult place, even as a residence of special persons. Therefore a *Viereckschanze* can include water sources, cult buildings, houses, artisanal structures and storage places. Unfortunately too little is known about the inner structures of *Viereckschanzen* to make any profound interpretation at present.

