Placing the market town: A place-specific, design-led approach to the development of rural settlements

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ABSTRACT

Through research by design, this thesis develops a place-specific approach to rural market towns based on an in-depth mapping of place and the integration of new buildings into historic town fabrics.

Market towns in the Welsh Marches are used as a location for this exploration. In many cases, these towns have a high historical and cultural value, but face challenges of affordability, changing demographic needs and a decline in services provision that threaten their survival. Neither large enough to attract urban regeneration funding nor small enough to be independently resilient, market towns find themselves in an in-between position, leaving town councils with limited resources to enable change. Despite emphasising placemaking and distinctiveness, planning policy often fails to engage with the nature of place and the nuances that make these towns unique.

Through design- and practice-based research, critical factors in successful small town place-making are identified and a place-specific alternative to current development strategies is proposed. An operational framework for design is developed through first-hand experience of Luigi Snozzi's involvement in the Swiss town of Monte Carasso and a critique of its application to the English context, developed through literature and precedent studies. This is tested through series of sequential design studies in Ludlow and Ruthin. The objective of these investigations is to refine the framework and test its applicability for architects and designers working in market towns.

The research demonstrates that by combining elements of European morphological and English picturesque traditions of placemaking, a holistic design framework founded on an in-depth reading of place can be an effective tool for designers. The resulting design approach suggests the growth and evolution of sustainable rural towns should be as much spatial as it is economic and political and identifies a positive role for the architect in enhancing the experience of living and working in contemporary market towns.

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PREFACE

The research in this thesis has emerged from my personal interests in placemaking, developed through studies during my architectural education at the Welsh School of Architecture. Explorations of place underpinned my student design projects, culminating in a B Arch dissertation examining cultural memory in Swiss church architecture and a thesis project focused on experience of place and time. The two projects forming the core of the thesis explored ideas of hidden histories and the revelation of archaeology in two small settlements, Caerleon in South Wales and Lyme Regis, Dorset (fig. 1.1).

At Design Research Unit Wales (DRU-w) between 2005 and 2012 (fig. 1.2), I was able to further investigate my interest in placemaking and contemporary architecture through live design research in collaboration with other architects, academics, engineers, clients and community groups. Projects were designed to be rooted in their place, informed by exemplars seen elsewhere in Central Europe, such as the Graubunden in Switzerland, and closer to home in Ireland and Scotland. Alongside this, a personal interest in the architecture of Sergison Bates and Caruso St John amongst others led to a consideration of the abstraction and distortion of familiar elements to develop contemporary responses to place, which has parallels with the approaches seen in the Graubunden (fig. 1.3). Themes emerging from projects in DRU-w projects included economy and simple forms; mapping and reading sensitive places and landscapes; and craft and material innovation. More recently, I have developed my work in market towns through the design of a community-led planning toolkit for towns, villages and neighbourhoods in Wales, community engagement work and teaching projects.

It is within this field of interest that the research is based. As a continuation of this design research, the projects in my thesis consider how a contemporary architecture can be derived from in depth understanding of their setting and how it can be designed to reinforce and strengthen the sense of place.

Fig 1.5. Ruthin, North Wales: A market town with medieval origins

1.0 INTRODUCTION

1.1 Context

One in five people in Europe live in rural towns of under 50,000 people.[1] The majority of market towns in England and Wales have their origins in the medieval period (fig. 1.4). Prior to the Doomsday Book, there were fewer than 50 urban places in England and Wales; by the fourteenth century this number had risen to over five hundred, of which nearly 250 were new towns 'planted' by landowners.[2] The majority developed during the medieval period as trading posts, and the main reason for their existence lay in *"the buying and selling activities of the ordinary people of the hinterland."*[3]

These towns have undergone dramatic and rapid change due to increasing personal mobility and the shifting nature of the rural economy. Examination reveals preserved historic cores surrounded by sprawling low density housing estates, industrial units and retail stores. By drawing people away from town centres, these developments erode the sense of community and public life and increase reliance on the car. In-migration of city dwellers attracted by a perceived higher quality of life has raised demand for housing, pricing out local people. The character and sense of place at the heart of the popularity of rural towns as places to live and work is under threat.

The Localism agenda and National Planning Policy Framework offers the opportunity to re-think the approach to market towns. In England, the Localism Act, which gained Royal Assent in November 2012, aims to decentralise decision making to local people in the biggest shake-up of the planning system since its foundation. It presents a unique opportunity to redistribute knowledge and decision-making power to the people it affects every day. Top-down is to be replaced by bottom-up, with the aim of "reinvigorating the most local forms of government – parish, town and community councils – allowing them to take control of key local processes, assets and services tailored to the needs of local residents"4. Localism offers the opportunity for local people to 'reclaim the initiative' and for the people who know places best to influence their future. Importantly, the increasing role of community-led initiatives has consequences for how we as designers conceive the urban environment and opens the door for a wide range of community-specific approaches and responses.

1 Paul Knox and Heike Mayer, *Small Town Sustainability* (Basel: Birkhäuser, 2009) p.23.
2 Paul Hindle, *Medieval Town Plans* (Princes Risborough: Shire, 1990), p.6.
3 Neil Powe Trevor Hart and Tim Shaw, *Market Towns: Roles, Challenges and Prospects* (London: Routledge, 2007) p.157.
4 RIBA, *Guide to Localism Opportunities for Architects: Part One: Neighbourhood planning* (London: RIBA Publishng, 2011) p.7.

Through design research, current development strategies are critiqued and a place-specific alternative founded on an in depth mapping of place is proposed. A vision for dynamic, well-connected and compact rural towns is presented through design studies carried out in Ludlow, Shropshire, and Ruthin, North Wales. The research suggests that in order to enhance local character the growth and evolution of sustainable market towns should be as much spatial as it is economic and political and suggests a positive role for architects in enhancing the experience of living and working in a 21st century market town.

1.2 Aim and objectives

The aim of this thesis is to develop a place-specific approach to rural towns based on the integration of new buildings into historic town fabrics and to test this through design studies in the Welsh Marches. Within this aim are a number of objectives:

- To assess the transfer of Luigi Snozzi's approach to market towns in the UK;
- To develop a method of mapping and analysing rural towns that becomes an armature for design, revealing potential rather than a true record of the history and development of a place;
- To develop an operational framework for design in historic town fabrics;
- To use design as a tool to test and refine the operational framework, working through research by design and practice based research.

The developed approach draws on first hand experience of exemplary European urban practice, and tests its application in towns in the Welsh borders.

1.3 Why market towns?

The study is focused on the historic cores of market towns. The literature review reveals these sensitive and fragile cores are surrounded by sprawling low-density housing estates, industrial units and retail stores which draw people away from town centres. The intention of this study is to suggest how intervention within the historic core can strengthen, define and reinforce their character as an alternative to peripheral development. It is acknowledged that this approach is unlikely to provide the quantity of new development required to meet Government housing targets and that further expansion may be required in some towns. However, the study aims to suggest that by strengthening historic cores, consolidating and defining their fabric, increasing density and creating connections to suburban developments and the hinterland beyond, historic cores can be revitalised as dynamic places to live, work and play.

Fig 1.6. Ludlow: The weekly market in Castle Square, a medieval market place surrounded by impressive facades

Fig 1.7. Ruthin: St Peter's Square, a medieval market place dominated by to the car and car parking

Fig 1.8. Brecon: Supermarkets around towns can draw shoppers away from the core, 'hollowing out' historic towns

Fig 1.9. Abergavenny: Housing on peripheral estates rarely reflects the sense of place and is often poorly connected to town cores

Market towns have been identified for this study due to their identifiable scale, freestanding nature, historic character and distinctive sense of place. 'Market town' is defined as a town with a population of between 2,000 and 25,000, a strong relationship between town and hinterland and a focus for rural life. These towns are a rarely explored field of operation for the architectural profession, but are of a scale where they can be understood fully and can be acted upon as 'urban laboratories'. However, their scale and population leaves them an awkward 'in-between' position. They are places where urban and rural challenges collide but that often fall between urban and rural policy and strategy, gaining few of the benefits of either.

The research by design focuses on the physical aspects of towns and their hinterlands; while not diminishing the importance of economic, social and political aspects of life in rural towns, the author's profession as an architect and architectural training has led to consideration of the built environment as the starting point of the thesis.

1.4 Research context

The background to the thesis describes the historic characteristics of market towns. There has been extensive research in this area, including Russell Chamberlain's '*English Market Towns*', Mark Girouard's '*The English Town*', Ian Soulby's '*The Towns of Medieval Wales*', Maurice Beresford's '*New Towns of the Middle Ages*' and Harold Carter's '*The Towns of Wales*', which describe the growth and evolution of market towns from the early medieval period (fig. 1.5 & 1.6). This is set in a wider context of economic and social change resulting in a rapid increase in the number of urban settlements. Typical settings and characteristics are drawn from these sources and from first hand experience to describe historic commonalities across the study area.

The contemporary characteristics and roles of market towns are then explored. Evidence suggests rural communities are facing significant social and economic challenges, including peripheral development; fossilisation of historic cores; the impact of the car and increased commuting; and changing patterns of employment (fig. 1.7 & 1.8). Sources include Hart & Neil Powe's '*Market Towns: Roles, Challenges, Prospects*', Michael Wood's '*Rural*' and '*Market Towns in Rural Wales*' and Knox & Maier's '*Small Town Sustainability*'. UK and Welsh Government documentation and policy are used to support the analysis. Localism and Neighbourhood planning are highlighted as an opportunity for communities to challenge planning policy and take command of their future. Primary experience of towns across the UK provides examples to support the literature review.

The study further identifies local distinctiveness and placemaking as an important component of both planning policy and the conservation movement. The National Planning Policy Framework

(NPPF, 2012) encourages designers to *"take account of the different roles and character of different areas."*[5] One process through which this is achieved is English Heritage's Historic Area Assessments and Cadw's characterisation studies. These are *"intended to assist planners, historic environment specialists, communities, developers and others in evaluating the historic environment […] and helps to address issues that may threaten to change that character."*[6] However, while exemplary in their exploration of history and townscape, the outcome of such a study is often conservation-led and in many cases does not provide guidance for designers or townspeople to help shape the future of a place.

The research also explores the work of contemporary architects in market towns in the UK and Europe. Although published exemplary work from the UK and Ireland is scarce, European best practice highlights two exemplars that are explored in the thesis: the long standing engagement by architect Luigi Snozzi in Monte Carasso (experienced first hand through the Monte Carasso Design Seminar 2006); and Swiss-German architecture between 1980-2000 which achieves a balance between sensitivity to historic contexts and a preference for contemporary forms and materials.

The Marches, a geographically defined area on the border between England and Wales, has been identified as a suitable context in which to explore the thesis. Two Marches towns were selected as locations for design-led case studies. Ludlow, Shropshire, was selected as it is seen by many as a quintessential market town- well preserved, with a strong character and a distinctive focus on food. Working in a well constituted and widely admired town will test the method in a sensitive setting, before testing in a second town to assess transferability. Ruthin, North Wales, was selected as a second case study due to its more fragmented nature. Furthermore, the author was project architect for the development of a community-led town plan for Ruthin Town Council while in practice at Design Research Unit Wales,[7] offering a depth of engagement that may otherwise be lacking.

While the two towns explored cannot be expected to demonstrate the full range of issues shaping the character of twenty first century rural towns, the scale and legible structure of the chosen towns enables principles to be identified and tested. Testing the framework in a second town aimed to ensure the transferability of the method to other settings; the risk with only one case study is that it becomes so specific that it does not function in other places. The ambition is that the framework could be implemented outside the study area in other UK market towns.

5 DCLG, *National Planning Policy Framework*, (London: DCLG, 2012) p.5.
6 English Heritage, *Understanding Place. Historic Character Assessment: Principles and Practice* (Swindon: English Heritage, 2010) p.2.
7 The study was funded by Beacon for Wales and Ruthin Town Council.

1.5 Methods

The thesis is a spatial and formal enquiry carried out through the mechanisms of design. Critical review at key stages with supervisors and visiting critics provides expert feedback on the process and steers the direction of the thesis. The development of the thesis has benefitted from engagement with projects within Design Research Unit Wales, opportunities to exhibit and presentation at conferences. Key methods include:

- **Research by design:** critical design as a way of conducting research to propose new ways of solving issues and improving the built environment.
- **Critical & reflective practice, process-led:** Using the tools and processes of the designer to test solutions. The research is process led rather than artefact focused; the process, critical review and evaluation of design leads to new insights.
- **Design Research Unit Wales:** Practice work while at Design Research Unit Wales has influenced the direction and development of the thesis. In particular, development of a community-led town plan for Ruthin Town Council has provided a 'live' aspect to the design research and grounded it in real-world issues.

1.6 Chapter structure

The thesis is structured into eleven chapters as follows:

Chapter one introduces the research and its scope, states the aims and objectives, and briefly outlines the research method.

Chapter two is a literature review presenting the primary research carried out in the field of study in relation to the aims. It explores the market town in the past and present, in particular the physical characteristics of historic town cores. Founded as trading, defensive and administrative centres, market towns have undergone dramatic and rapid change due to increasing personal mobility and the shifting nature of the rural economy. Examination reveals preserved historic cores surrounded by sprawling low density housing estates, industrial units and retail stores. By drawing people away from town centres, these developments erode the sense of community and public life and increase reliance on the car. In-migration of city dwellers attracted by a perceived higher quality of life has in some towns raised demand for housing, pricing out local people. The result is pressure on the character and sense of place at the heart of the popularity of rural towns as places to live and work.

Chapter three describes approaches to place making in the market town. It describes five

approaches to understanding place in the UK and European context. It commences with an exploration of the prevalence of visual approaches to placemaking in the UK context, before exploring the morphological approaches of Conzen and Rowe; the typological approach developed by Rossi and Gregotti; the introduction of genius loci- the 'spirit of place'- by Norberg-Schulz; and the people oriented approaches of Jan Gehl and Kevin Lynch. The section concludes with a discussion of the success of placemaking in the market town context.

Chapter four reports on a pilot study carried out in Monte Carasso, Switzerland. Luigi Snozzi's long term engagement has led to an alternative approach to the small town, based on the rethinking of zonal planning strategies in favour of a place specific approach, where projects are located according to need and impact. Attending the Monte Carasso Summer School allowed the author to gain an insight into the approach and methods of Snozzi and identify four themes in his work that could be transferred to UK market towns.

Chapter five, the research methodology, gives a description and justification of the research methods used in the thesis. It describes the primary aim to develop a place-specific approach to rural towns based on the integration of new buildings into historic town fabrics. It explains how the designs are conducted research by design, using reflection in action, reflection on action and peer review to assess design outcomes.

Chapter six commences with a critique of Snozzi's approach, before describing the development of an operational framework that seeks to align Snozzi's themes with an architectural and formal approach suited to the UK market town context. The chapter presents a description of attributes drawn from Swiss-German architecture between 1980-2000 and English realist architecture operating in the UK and beyond since 1990. The chapter concludes by presenting an operational framework to be tested through design.

Chapter seven describes the application of the operational framework discussed in chapter six to Ludlow, a market town in the Marches. Firstly, an approach to recording, analysing and mapping a rural town that becomes an armature for design is discussed. Secondly, two spatial and formal enquiries through the processes and mechanisms of design on sites highlighted by the mapping are described and analysed. The chapter illustrates an approach which integrates new buildings into historic town cores, reinforces and strengthens settlements and creates a dialogue between historic fabrics and new buildings. The process of design reveals shortcomings in the mapping process and operational framework, which is revised for successive designs.

Chapter eight builds on the knowledge developed in the previous chapter. It describes the application of a refined operational framework in Ruthin, North Wales. Whereas in Ludlow the

mapping and design processes were seen as two distinct steps, the framework is revised to present an integrated and holistic approach. The mapping and design process is discussed and a final design project presented. A design addendum following peer review extends the depth of investigation and highlights the importance of inhabitation and its omission from the operational framework.

Chapter nine collates under the headings of the operational framework a summary of results from the preceding design chapters.

Chapter ten is the findings and further work. It discusses the validity of applying Snozzi's approach in the UK; the development of a mapping process; the evolution of a design framework suited to UK market towns; a discussion of the design projects themselves; and finally suggests some further steps in developing and testing the thesis.

Chapter eleven is the bibliography.

Fig. 2.1. Ruthin, North Wales,viewed from its hinterland.

2.0 THE MARKET TOWN

2.1 Introduction

In this chapter, the market town is evaluated to highlight how its character is derived from gradual historic evolution and cycles of inhabitation, visible in buildings, spaces and built form. The challenges they are facing in the twenty first century are then examined and the resulting erosion of their sense of place explored.

The enquiry starts by describing a working definition of the term 'market town' based on population and their freestanding nature, surrounded by a rural hinterland. In the second section the form, evolution and characteristics of market towns are explored. While there is a great variety in the history, morphology, economy, and size of market towns, many have their origins as trading posts in the medieval period. At the time of the Domesday survey, there were only fifty places with an urban character in England.[1] By the fourteenth century towns numbered over five hundred, acting as places of trade, spiritual guidance and government for the surrounding countryside[2] (fig.2.1). Further towns grew during industrialisation to support industrial growth: mining, brewing, and railway towns share many attributes with market towns. While some expanded during the industrial revolution to support manufacturing or industrial growth and others have been absorbed into cities, many market towns have been bypassed by transport systems, industry and market economies and remain small in size.

In the third section, the contemporary pressures on market towns are examined. A fifth of the population of Europe lives in small towns of under 50,000 people; beyond the major metropolitan areas this figure is closer to a third.[3] Market towns today serve a variety of roles in the countryside and their fortunes vary dramatically. While some have experienced growth and prosperity, others have experienced a period of stagnation following a decline in the rural economy. Three challenges are identified: preservation and conservation of historic cores; edge development; and peripheral growth and mobility and employment.

1 Paul Hindle, *Medieval Town Plans* (Princes Risborough: Shire, 1990), p.6.
2 ibid. p.6.
3 Paul Knox and Heike Mayer, *Small town sustainability* (Basel: Birkhäuser, 2009), p.23.

2.2 Defining the 'market town'

This section is aimed at defining the 'market town' and identifying parameters that mark them as distinct from villages, larger rural capitals and small cities. The Concise Oxford English Dictionary defines a market town as:

> "*a town of moderate size where a market is held.*"[4]

Recent studies and government reports have used a variety of definitions for the market town but there is no single agreed definition in use. What is usually being referred to is one of the many rural towns acting as a service centres- a function historically associated with a castle or lord's estate, a church and a market- for the surrounding area of hamlets and villages.[5] This section develops a definition of the market town based on two aspects: population and their freestanding urban form.

-A population based definition

Market towns can be defined by demographic, geographic, economic and social factors, but in the literature and in government policy, population is a frequently used determinant. In their role as a service centre, providing trade and services for the town and its surrounding, a critical mass of residents and visitors is required to sustain businesses and services. The scale of population helps to create a sense of community and a balanced social and economic life.

For the purposes of government policy, the basis of the majority of current definitions is the Rural White Paper published in 2000, which defines two tiers of market town; smaller market towns with a population between 2,000 and 10,000, and larger market towns with a population of 10,000 to 25,000. Over a thousand towns in England fit within these extremes.[6]

The Campaign to Protect Rural England (CPRE) adjusts the scale to between 3,000 to 30,000 inhabitants[7], while Action for Market Towns (AMT) takes a broader range of 1,500 to 40,000 inhabitants to include their smallest and largest member towns, Bishop's Stortford (35,300) and Holt, West Wiltshire (1,532).[8] These differing ranges show there is no clear agreement on

4 *Concise Oxford English Dictionary*, 12th edition (Oxford; New York: Oxford University Press, 12th, 2012).

5 Neil Powe Trevor Hart and Tim Shaw, *Market towns: roles challenges and prospects* (London: Routledge 2007),
p.3.
6 Countryside Agency, *Rural White Paper* (London: Coutryside Agency, 2004).
7 Campaign to Protect Rural England, *Market Towns: Losing their character?* (London: CPRE, 2003) p.1.
8 Action for Market Towns, *Market Towns: The key facts* www.towns.org [accessed 12.10.11]

Fig. 2.3. Brecon: A freestanding town with clear edges between urban and rural.

Fig. 2.4. Ruthin: Views over the rooftops to the landscape beyond.

a population-based definition, but any attempt to classify towns by population can include settlements with a wide variety of characteristics and functions. Market towns must be distinguished from large villages at one extent and from larger urban areas at the other, while at either extreme they share characteristics with these other categories. Small market towns may have a lower population than some villages, but are identifiable by their clustering of services and a civic infrastructure and tradition.

For the purposes of this thesis, a definition based on the UK Government bandings of 2,000 to 25,000 will be used. Settlements with a population lower than 2,000 cannot sustain the role as a service centre that is characteristic of a market town. At the larger extent, towns with a population of over 25,000 lose some characteristics of market towns such as their identifiability in the landscape and their strong sense of place and identity. According to the 2011 census, this range amounts to over 2,000 towns in the UK.[9]

-Freestanding urban form

Market towns can be identified by their 'free standing' nature with *"contiguous urban land"*[10], a dense urban settlement surrounded by a rural hinterland (fig. 2.3). Many have an urban character and clear edges where the town dissolves into countryside (fig.2.4).

The Government measures population density to define settlement types. The land area of England and Wales is divided into one hectare squares and the population density calculated in each using the Postcode Address File, giving each hectare a settlement type and context.[11] Squares with a population of more than 10,000 are categorised as 'urban', while the remainder are considered 'rural' and classed as 'town or fringe', 'village', or 'hamlets and isolated dwellings'. Each square is assessed with its surrounding squares and classified as 'sparse' or 'less sparse'. These defined levels of development describe both the population of a particular area and its relationship with its surroundings. In its definition of small and market towns in Wales, the Wales Rural Observatory uses four of the eight possible bands as indicators of small towns; 'Urban (sparse)', 'Town and fringe (sparse)', 'Town and fringe (less sparse)' and 'Urban (less sparse)' where a considerable hinterland exists between the town and surrounding built up areas.[12] This definition offers an approach based not only on population but also on the extent

9 Love My Town, http://www.lovemytown.co.uk/populations/TownsTable1.asp [accessed 31.03.16]
10 SERRL, *A Review of Urban and Rural Area Definition* (Birkbeck College: South East Regional Research Laboratory, 2002) p.17. available at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/230529/urbanrural-user-guide.pdf> [accessed 05.05.15].
11 Commission for Rural Communities, *Defining Rural England* (Cheltenham: Commission for Rural Communities, 2007) p.6.
12 Wales Rural Observatory, *Small and Market towns in Wales and their Hinterlands* (Cardiff: Wales Rural Observatory, 2007) p.12.

Fig. 2.5. Mold: While the traditional role of the market is diminished, many towns retain popular weekly markets.

Fig. 2.6. Ruthin: Many towns have become service centres, providing supermarkets, banks, post offices and health services to residents and those living in the hinterland.

of the urban area and relationship with neighbouring towns and villages. This is perhaps more representative of the traditional interdependence of the market town and its surroundings, where "*Market towns are generally perceived to have in common a capacity to act as focal points for trades and services for their hinterland.*"[13]

Market towns are identifiable as stand-alone settlements within a rural landscape rather than part of a more extensive urban area or conurbation. Owen has identified the importance of the setting of towns in their landscape to their sense of place.[14] Market towns have a symbiotic relationship with their hinterland and rely on a mutual interdependence of town and countryside. In this way may be distinguished from urban and suburban areas and from more rural and sparsely populated villages and hamlets.

-A focus for rural life

Traditionally, market towns were the focus of agricultural and manufacturing trading activity in the countryside, existing in a "*symbiotic relationship*" [15] with their surrounding area. The average area each town served can be described by the distance a person could travel to bring goods to market and return home by nightfall; a distance of approximately 6 miles.[16] While the traditional role of the market place as a focus for trade and commerce has diminished (fig.2.5), market towns remain a centre for service provision; while the market may have ceased to be the main focus, supermarkets could be seen as their replacement, alongside services such as banks, post offices, health services and solicitors.[17] The Countryside Agency similarly defines a market town as a place where people from and around a town can buy most everyday things they need; obtain a basic level of services; find a mix of housing types; find a range of employment; and can enjoy leisure activities such as eating out and the theatre.[18]

Today towns rely on their hinterland to sustain their shops and services, while those living in the hinterland rely on the town for everyday trade, access to services, entertainment, festivals and community events. The catchment area of contemporary towns varies depending on a number

13 Neil Powe, Trevor Hart and Tim Shaw, *Market towns: Roles challenges and prospects* (London: Routledge, 2007),
p.11.
14 Stephen Owen, 'The Town Observed: Looking at Settlements from the Surrounding Landscape,' in *Journal of Urban Design*, 14.4 (2009) pp.537-555.
15 Paul Courtney and Andrew Errington, 'The Role of Small Towns in the Local Economy and Some Implications for Development Policy' *Local Economy* 15.4 (2001) pp.280-301.
16 Russell Chamberlin, *English Market Towns* (Weidenfeld and Nicolson, 1985) p.8.
17 Neil Powe and Tim Shaw, 'Exploring the current and future role of market towns in servicing their hinterlands: a case study of Alnwick in the North East of England' in *Journal of Rural Studies* 20.4. (2004) pp.405-418. (p.406).
18 Countryside Agency, *Market Towns Toolkit- Securing a Stronger Future* (Cheltenham: Countryside Agency, 2001)

of factors including location, proximity to larger settlements, patterns of travel and transport, local authority and regional boundaries, public services coverage and tourist catchment areas.[19] However, people as less attached to their local town than previously supposed. Acceptance of longer travel times, increasing concentration of services in cities, changing patterns of and increased car access means people are prepared to go further afield for work, shopping and leisure (fig.2.6).[20] A recent study has found that between 25 and 45% of visitors to market towns were town resident, while 40-45% were from the hinterland,[21] demonstrating the complexities of the link between market towns and their surroundings. Despite this, in 2004 the Countryside Agency identified 499 towns in England acting as 'service hubs' and providing a market town function as identified above[22] and has been the focus of recent government policy, in particular the Rural White Paper (2000).

-A working definition

From the sources described above, a working definition of a market town for the purposes of this study is a settlement which has:

- a population of between 2,000 and 25,000
- A stand-alone nature with a rural hinterland
- A focus for rural life

This definition encompasses not only the traditional market town but a wide variety of towns providing a similar function. These include small rural and coastal settlements that provide for a rural hinterland, regardless of whether or not they had traditional agricultural or produce markets. Some may be industrial towns, while others may have grown around railway junctions or coastal resorts. The definition allows for the changes that are taking place in market towns to be absorbed within the definition; for example, some towns may have a primary function as a visitor or tourist attraction, a commuter village or an employment centre.

Difficulties have been identified with the use of the term 'market town'. The phrase has a historic legacy that calls to mind a specific type of town and character. Its use has been little debated although the replacement with phrases such as 'small towns', 'county towns' or 'rural capitals' has been suggested to create distinction between contemporary towns and their historic

19 Action for Market Towns, *Market Town Healthcheck Handbook* (Bury St Edmunds: Action for Market Towns, 2005) p.2.
20 Action for Market Towns, ibid. p.2.
21 Neil Powe, Trevor Hart and Tim Shaw, ibid. p31
22 Countryside Agency, *The state of the Countryside 2020* (Wetherby: Countryside Agency, 2003). Service hubs were defined as having a bank, building society or solicitor, more than ten retail outlets, a higher than average number of shops, a doctors surgery and a supermarket.

predecessors.[23] However, for the purposes of this study the term provides an umbrella for all the towns studied. It is also a recognisable term many people can identify with and is widely understood by the public.

While the definition gives a focus to the criteria that define this study, this definition does not consider the features and characteristics of towns that make them attractive to visitors and inhabitants and contribute to their sense of place. The following section will explore this in more detail by examining the historic role of market towns and contemporary pressures on their sustainability.

23 Alison Caffyn, 'Market town regeneration; challenges for policy and implementation' *Local Economy*, 19 (2004), 8-24 (p.10).

Fig. 2.7. Ludlow: Streets falling from the town square to the hinterland.

2.3 The form and characteristics of historic market towns

2.3.1 Introduction

This section examines the form and character of historic market towns, the majority of which have their origins in the medieval period. The aim is to provide an overview of a number of common features characterising market towns. However, it is acknowledged that as Mumford describes, *"Each medieval town grew out of a unique situation, presented a unique constellation of forces, and produced, in its plan, a unique solution"*, and that *"no single definition will apply to all its manifestations and no single description will cover all its transformations."*[24]

Prior to the Domesday Book, there were fewer than 50 urban places in England and Wales; by the 14th century this number had risen to over five hundred, of which nearly 250 were new towns planted by lords.[25] The majority developed during the medieval period as trading posts, and the main reason for their existence lay in "*the buying and selling activities of the ordinary people of the hinterland."*[26]

Following the Norman invasion, consolidation of power brought an unprecedented boom in urban growth founded on pan-European merchant capitalism.[27] Trading frameworks emerged initially between the Italian States and the towns of the Hanseatic League in Northern Europe, and with time a dense trading network grew across Europe with market towns at its heart. This phase of growth between the 11th and 14th centuries saw the foundation and growth of many of the places that have come to typify market towns in the public imagination. Subsequent phases of development, growth and prosperity have added to town fabrics. While some grew into larger towns and cities and some disappeared altogether, those that remained and are identified as market towns today have largely been bypassed by industrial growth and the proliferation of transportation that characterised the industrial period.

While market towns are unique to their location and context, there are shared characteristics and similarities that emerged from the process of their establishment and growth. The simple rule of a day's walk to market, a distance of approximately 6 miles, helped establish a network of towns by Royal Charter.[28] As centres of trade, the market place was at the heart of a compact urban core (fig. 2.10), constrained by landscape features or in contested areas by defensive

24 Lewis Mumford, *The city in History: Its origins, its transformations, and its prospects* (New York: Houghton Bracce & World, 1966)
25 Paul Hindle, *Medieval Town Plans* (Princes Risborough: Shire, 1990), p.6.
26 Lewis Mumford, ibid. p.157.
27 Paul Knox & Heike Meier, *Small Town Sustainability* Basel: Birkhäuser, 2009), p.67.
28 Russell E Chamberlin, *English Market Towns*' (London: Artus Books, 1993) p.8.

Fig. 2.8. Tewkesbury: A mix of medieval, Georgian and victorian frontages to the street.

Fig. 2.10. Richmond: A two and three storey compact core around the market square.

Fig. 2.9. Totnes: Streets with varied scales and heights of building lead up the hill to the church.

walls. Growth often followed a radial pattern from the market square; through a process of intensification and spread, a pattern of concentric densities can be identified from the most compact and urban at the centre to the lower density at the edge (fig.2.9). Rural and agricultural land was a short distance from the town centre, with a strongly demarked boundary, commonly through town walls or landscape features such as rivers. Growth over centuries took place within this clearly defined pattern.

The sixteenth and seventeenth centuries brought new industries and buildings (fig. 2.8). Assembly rooms, pleasure gardens, covered market halls and new housing replaced medieval buildings and new frontages were grafted onto medieval frames. Until the nineteenth century, market towns remained the focus for a wide range of needs of a rural hinterland and largely self-sufficient. However, during the eighteenth and nineteenth centuries, mechanisation of farming, industrialisation and changing economic processes driven by new technologies and transport systems reduced the importance of the local market, while mechanisation put pressure on the small-scale, hand-crafted industries that thrived in the medieval towns. While some towns grew as small manufacturing centres during the industrial period, others were bypassed by industrialisation and started to stagnate as their agricultural and trade importance started to decrease. Some became characterised by their specialised industry, for example mill towns, manufacturing towns, brewing towns, and railway towns. Each type of town had its own industrial architecture that developed as a result of industrial prosperity. By the late industrial period, small towns were struggling to remain competitive in the face of rapidly changing technology and increasing scales of production.

This next section will explore the spatial characteristics of historic market towns. A number of common features and themes will be explored that guided the growth and morphology of towns and which continue to impact market towns today.

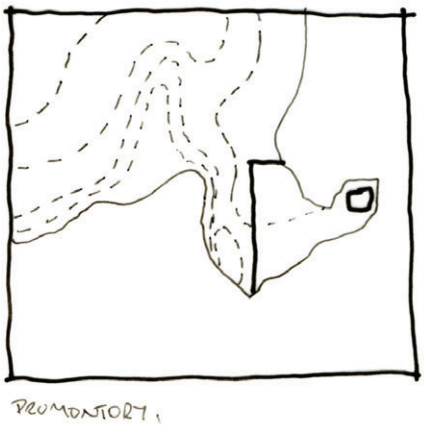


Fig. 2.11. Promontory sites: Sites on coasts can use the natural topography of inlets, cliffs and headlands to add defensive strength to a town. Coastal sites were often chosen where nearby rivers were impassable and unsuitable as trade routes. Trade by sea was preferable to extensive journeys by land over inadequate roads and using slow modes of transport. Many of the English-founded towns along the coast of Wales were located to allow the garrisons to be supplied by sea in case of a Welsh rebellion; in these cases a site defensible against attack by land became an important consideration. A maritime location offered further advantages including commercial fishing and transport links around the coast were faster than by land.

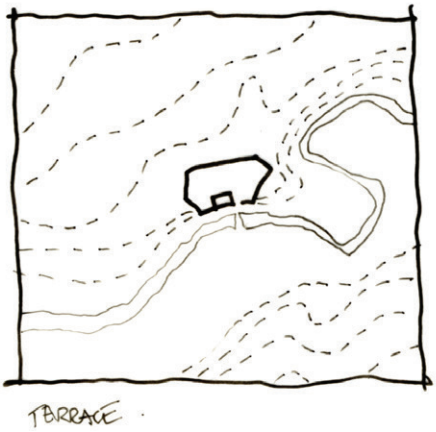


Fig. 2.12. Terrace sites: Providing defence along the steep edges of a river terrace, cliffed by a river or stream. Ludlow for example is located in a bend in the river Teme that has eroded into a steep cliff, providing a defensible edge on which the castle is located. Similarly Richmond in Yorkshire is located on a steep sided hill with a river at the base.

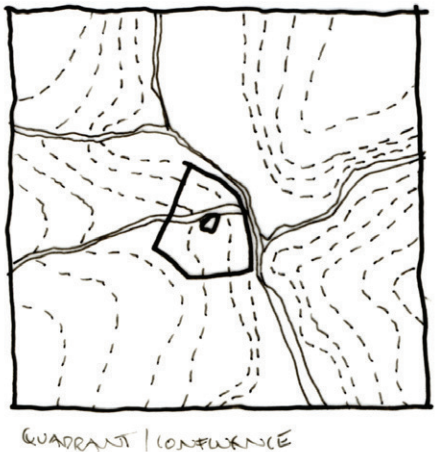


Fig. 2.13. Confluence sites: Located at the confluence of rivers and streams, providing natural defences on two or more sides of the town. Monmouth for example is located at the confluence of the Monnow and the Wye, and Brecon at the confluence of the Usk and the Honddu. The main advantage of a confluence site was that it created defensible edges to the town without the need for ramparts.

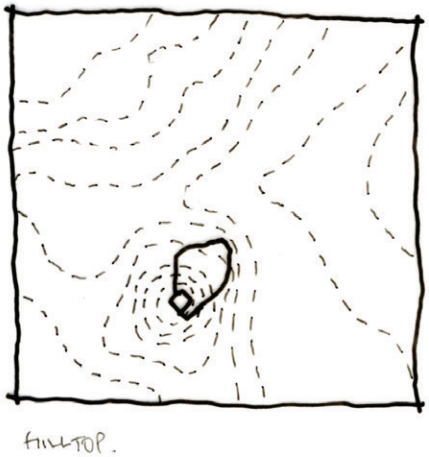


Fig. 2.14. Hilltop sites: Towns built on commanding sites, reinforcing the status of the lord, and often the site offers defensive advantages and a presence that could dominate a valley or important trade route. Hilltop towns take advantage of natural topographic features such as river cliffs to create natural defences.

2.3.2 Siting and landscape

The primary motivations for locating, founding and expanding market towns were political- a location for defence or for territorial control; and economic- a convenient location for trade or selling goods, or for access to raw materials.[29] The creators of 'new' towns founded in the medieval period exercised a degree of choice over where towns were located. Major landowners had little problem procuring land for a site, as only a comparatively small area was required. Sites were often located in the corner of a parish, allowing the town to separate into a new parish if successful.[30] The choice of site reflects the social and economic context and the values of the founders, alongside the ability of technology to overcome problems posed by the nature of the site.[31] The choice of site helped determine prosperity and success, and in some cases this choice dictated whether a town would survive beyond the Middle Ages.

Landscape was an important consideration in deciding where a town should be built. Sites on coasts could use the natural topography of inlets, cliffs and headlands to add defensive strength to a town, offered safe harbour for sea-based traders and encouraged commercial fishing (fig. 2.11). [32] Many English-founded towns along the coast of Wales were located to allow the garrisons to be supplied by sea in case of a Welsh rebellion; in these cases a site defensible against attack by land became an important consideration.[33]

Where rivers could be used for transport, towns were often located inland away from this threat (fig. 2.12 & 2.13). Locations close to rivers offered defence, a free source of power for mills and early industry and controllable (therefore profitable) crossing points along trade routes. Access to navigable water allowed transportation of goods; while lightweight goods such as cloth and wool could be transported easily by land, fragile or heavy goods or raw materials such as coal, lead, iron, timber stone, beer and wine were most easily and cheaply transported by water.[34] Weirs provided the town with a supply of fish and could be used to irrigate farmland in times of drought. Two types of river site are common; confluence sites, at the meeting point of rivers or streams; and, terrace sites, often with defensive platforms cut by river erosion.

Many of the best-known examples of market towns are hilltop towns (fig. 2.14). While England and Wales do not have celebrated hill towns to the same extent as Italy or Spain, there is a distinctive type of hill slope town that developed in medieval England. These towns are built

29 Stephen Owen, 'English Hill Towns: Some Further Steps in Appreciating their Identity in the Wider Landscape', *Landscape Research*, 30 (2005) 57-79 p.60.
30 Paul Hindle, *Medieval Town Plans* (Princes Risborough: Shire 1990) p.18.
31 Michael Aston and James Bond, *The Landscape of Towns* (London: JM Dent & Sons, 1976) p.21.
32 Ian Soulsby,, *The towns of medieval Wales : a study of their history, archaeology and early topography* (Chichester: Phillimore, 1983) p.30.
33 Harold Carter, *Towns of Wales: a study in urban geography*' (Cardiff : University of Wales Press, 1965) p.27.
34 Mark Girouard, *The English Town* (Yale: Yale University Press, 1985) p.30.

on commanding sites, reinforcing the status of the lord, and often the site offers defensive advantages and a presence that could dominate a valley or important trade route. Owen has examined the English hill town as a subset of market towns with particular characteristics, describing them as:

> *"free-standing towns set in English upland landscapes where, because of their siting on predominantly convex land shapes, the whole settlement, or a significant part of it, is visible from viewpoints and routes in the surrounding landscape, and where the centre of the town stands towards the top rather than the bottom of the slope."*[35]

According to Owen, an English hill town in its purest form consists of a top- the skyline projecting above the town, often including administrative buildings such as church and castle; a base- for example, the horizontal plane of a river or valley floor; edges- steep unbuilt areas or areas of vegetation bordering the town; and a body of figure- a dense urban development on the shallower slopes of the hillside.[36] While some hill towns are located on the crest of outcrops of hard stone, others are found at breaks in a slope on a ledge or shelf on the hillside. These breaks offered a flatter area of land easier to build on than the surrounding slopes. In the cases of later market towns such as the mill towns of Yorkshire, building along these breaks in terrain result in linear settlements that run along a valley, as seen in Todmorden.

2.3.3 Morphology

The character of market towns has been developed through centuries of building, rebuilding, converting, extending and renovating. Their tight pattern of streets and squares with dense mixed-use buildings are articulated by a vernacular that reflects local materials and construction knowledge. Medieval town morphology can be divided into two main categories:

-Organic towns

Commonly organic towns developed from existing villages (fig.2.15). The market place is typically located at the junction of three or more major roads, making it triangular, square or rectangular. The haphazard street and plot pattern organic towns directly results from their unsupervised growth, which does "*not begin with a preconceived goal; it moves from need to need, from opportunity to opportunity, in a series of adaptations that themselves become*

35 Stephen Owen, 'English Hill Towns: Some Further Steps in Appreciating their Identity in the Wider Landscape', *Landscape Research*, 30 (2005) 57-79 p.60.
36 Stephen Owen, 'Classic English Hill Towns: Ways of Looking at the External Appearance of Settlements', *Journal of Urban Design*, 12: pp.93-116.

Fig. 2.15. Organic town: Bampton, Lincolnshire, is an example of an organic town with a market place at the junction of three major roads.

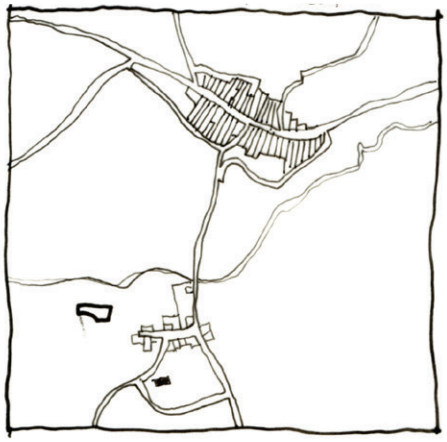


Fig. 2.16. Linear town: Market Borough is a linear town along a main trade route. In this town the church and castle are remote from the surviving village.

Fig. 2.17. Rectilinear town: Sailsbury demonstrates a grid form with regularly laid out streets and lanes.

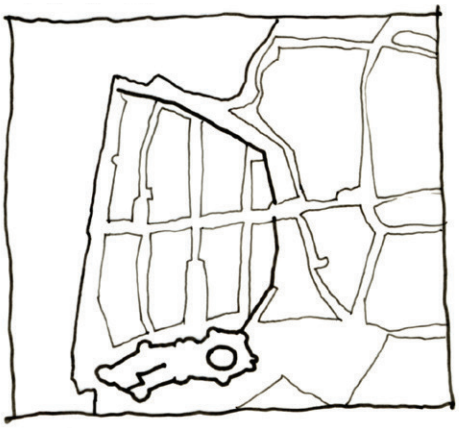


Fig. 2.18. Bastide town: Carnarfon is one of a number of bastides laid out around Wales, predominantly on the coast. Bastides have a grid form within a protective curtain wall.

increasingly coherent and purposeful, so that they generate a complex final design, hardly less uniform than a preformed geometric pattern."[37]

-Planned towns

As previously identified, the medieval period saw the foundation of a large number of new towns. With the expansion of trade networks and the opening of European markets, many landlords saw value in creating new towns as trading centres. Other towns were founded for defence of land and populace. Many of these towns grew around a castle or fort. Three types of planned town are common:

- **Linear towns:** The most common layout for a planned town is a street running away from the castle gates with regular plots either side, sometimes widened for a market place and sometimes enclosed by a ditch or palisade (fig. 2.16).
- **Bastide towns:** Bastide towns were fortified towns built during the 13th century around a newly established castle, initially in France but later by Edward I in England and Wales. These were planned in their entirety at a moment in time, a complete settlement with urban status and a pre-determined form. Ten bastides were built in three phases coinciding with the conquest of Wales; Flint, Rhuddlan and Aberystwyth in 1277; Caernarvon, Conway, Criccieth, Bere and Harlech in 1283; and Beaumaris and Bala in 1294.[38]
- **Rectilinear towns:** New medieval towns were typically laid out on a rectilinear form, adapted to topography and existing routes, as this was the easiest form to subdivide into burgages. Towns based on Roman settlements commonly have a grid form, as do Marches towns built by Edward I. These towns typically have a grid form of streets and lanes crossing at right angles. This regular grid form is manipulated in response to the landscape and the limits of site (fig. 2.17).

2.3.4 Buildings & public spaces

In their plan, layout and physical fabric market towns are a far from homogenous group. Contrasts are evident between Norman planned towns and organically growing towns based on existing settlements. However, there are identifiable buildings and development patterns that are common, as Morris describes:

37 Lewis Mumford, ibid. p.348.
38 Anthony EJ Morris, *History of urban form: Before the industrial revolutions* (Harlow: Longman, 1994) p.128.

Fig. 2.19. Ludlow: The dual focus of church and castle dominate the ridge of the town and create a strong silhouette.

> *"The component parts of the medieval town are normally the wall, with its towers and gates; streets and related circulation spaces; the market place, possibly with a market hall and other commercial buildings; the church, usually standing in its own space; and the great mass of general town buildings and related private garden spaces."*[39]

The focus for trade was the market place, while the administrative heart was provided by the church and castle or manor. Housing plots were commonly laid out in characteristic long, thin burgage plots. The major public buildings would have initially been religious and civic but over the centuries assembly halls, town halls, guilds have been added as an expression of civic pride.

-Administrative Centre: Church and Castle

The urban morphology of many towns was defined by the location of the church and the castle, a *"two part nucleus"*[40] that is common across Europe (fig. 2.19). These often take advantage of topography to dominate the setting of the town, creating the strong skyline that is one of the most memorable features of many market towns. The church was usually located in a prominent position- on high ground, near the castle, alongside the market square or on an ancient religious site. Further ecclesiastic buildings were common, including monasteries, hospitals and friaries. As their rule was beyond secular control, most religious houses were built beyond the town limits but close enough to be fully engaged with town life.

Many European market towns grew around castles. In England 30% of new towns were established alongside castles while in the contested Marches this figure is 80%.[41] Many castles were built following the Norman invasion to demonstrate the power of the new landowners. These became centres of governance, for example sheriff's courts and assize courts, and became seats of judicial and legislative power. Ludlow and Alnwick, for example, were power bases of regional lords and councils who exercised control over a large territory.

-Town walls

A quarter of medieval towns built town walls enclosing the whole settlement and often land beyond.[42] Reasons for this include the need for defence; to reinforce the independence of the town; to define the extent of the town's laws; or as a civic status symbol. Once completed, town walls controlled the growth of the town and separated it from the surrounding countryside. The

39 Anthony EJ Morris, ibid. p.97.
40 Anthony EJ Morris, ibid. p,103.
41 Paul Hindle, ibid. p.33.
42 Paul Hindle, ibid. p.33.

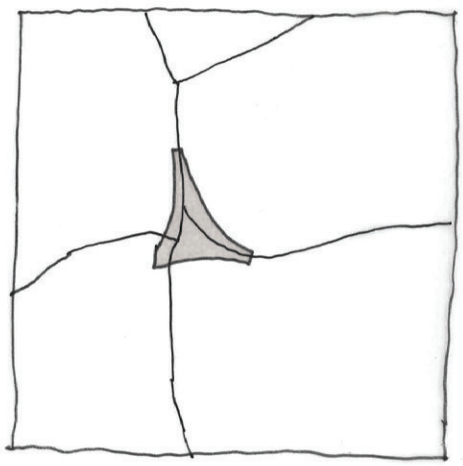


Fig. 2.20. Central open market: Commonly older or organic towns, developed from earlier villages. The market place is typically located at the junction of three or more major roads.

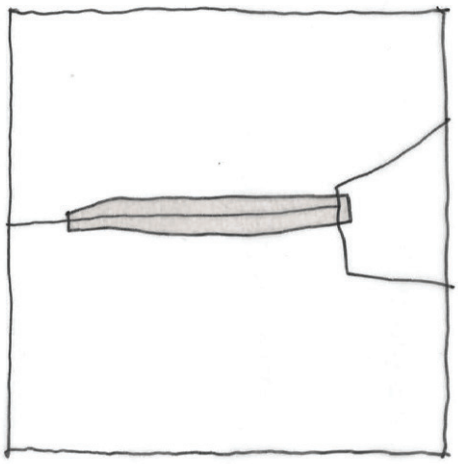


Fig. 2.21. Linear market: Developed along existing routes or enforced by site, linear market towns consist of as little as a single row of plots either side of the road, widened to accommodate a market.

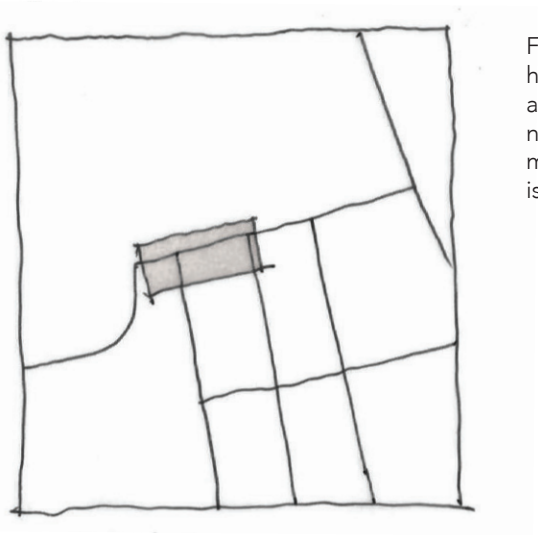


Fig. 2.22. Planned markets: Some towns had a market square, usually rectilinear in shape and specifically set aside for the market. This is not as common as the ad-hoc central or linear markets that adapted existing street patterns and is perhaps more of a continental approach.

location of the town could have a considerable bearing on the extent of defences required. Not only were towns in the Marches or the Scottish borders more likely to be defended with town walls, but the landscape of the site could have a considerable impact on the extent of the defences. Chepstow, for example, only required defences to the south and west due to its location in a meander of the River Wye. By the 14th century the significance of the town wall in England and Wales was greatly reduced due to peace across the country. The wall started to serve mainly as a customs barrier to protect trade and collect tolls.[43]

-Trade and economy: The market

Medieval towns gained their wealth from trading, the centre of which was the market. The term 'market' signifies the concession of the lord of the manor for a community permitting *"the meeting together of people for the purchase and sale of provisions or live stock, publicly exposed, at a fixed time and place."*[44] Its value to the people was as a place of trade and exchange for the town and its hinterland, while the lord gained income from tolls on traders. Most market towns:

> *"…started off with a single open market, but if they prospered inevitably ended up with several. Annual fairs and markets, if they stared off in the centre, tended to move off to the periphery, to get rid of the inconvenience for everyone concerned having large numbers of animals trampling through narrow and crowded streets. Covered markets and market halls appeared. The main market place sometimes got smaller, because stalls developed into shops and houses, and sometimes bigger because it was enlarged."*[45]

The market square was the heart of the town, as Norberg Schulz describes: *"only when reaching the main square has one really arrived, and in most old towns the streets lead towards this focal point in a natural way."*[46] Typically, markets had narrow entrances for toll collection, but were large enough to accommodate trading in livestock and grain. Three forms of market place are common (see figures 2.20 to 2.22): Central open markets, at the junction of major roads; linear markets, developed along existing routes; and planned markets, a formally defined central space, often rectilinear in shape.

All medieval markets had a market cross, although few remain; deals sealed under the cross were seen as binding. Their raised positions on a dias made them an important part of the

43 Anthony EJ Morris, ibid. p.98.
44 Russell E Chamberlin, *English Market Towns* (London: Artus Books, 993) p.8.
45 Mark Girourard, *Cities & people: a social and architectural history* (London; New Haven: Yale University Press, 1985) p.69.
46 Christian Norberg-Schulz, *Existence, Space & Architecture* (New York: Paeger Publisher, 1971) p.84.

Fig. 2.23. Ludlow: A rectangular market place at the heart of the town, with later infilling by small scale buildings and shambles.

Fig. 2.24. Tewkesbury: Formal frontages along the main street through the town.

social life of a town, a point from which news announcements could be made or debates heard.[47] The location of the cross was in some cases expanded into a covered market hall. These were used either as enclosed trading places for goods requiring shelter from the sun, or in some cases hosted town council chambers above a market space, as found at the Buttercross in Ludlow. These buildings continued to be constructed up until the nineteenth century. Over time some market stalls evolved into permanent buildings, infilling the market square with '*shambles*'.

Some towns developed specialist trades and markets that grew to dominate their economy, for example Beccles in Suffolk specialised in fish, Thaxted in Essex in knives, Ludlow in cloth and gloves and Bridport in robes.[48] Livestock markets were an important feature of market towns and continue in many places today. It was common for livestock markets to be held in a separate location to the main market square to reduce the inconvenience of herding animals into and out of the town centre. No livestock markets survive at their medieval location; by the 19th century the congestion, noise and rising health concerns had led to their abolition or relocation to the edge of towns.[49]

-Everyday life: Streets, plots and buildings

The distinctive texture of many market towns is created by its patchwork of plots, houses, yards and squares. These spaces are the focus of the social life of a town and its hinterland.[50] Whether towns grew organically or were planned, a hierarchy of streets and lanes is often evident. Main streets, for example linear market places or through routes were the first to be placed and developed with stalls or shops at ground floor level and residences above with formal frontages (fig. 2.23). These streets are characteristically wide, and often feature the grandest townhouses, public buildings and retail with continuous, formal frontages (fig. 2.24). Secondary streets are similar in scale but have more residences at ground level. These often lead to and from the Main Street or market place. Lanes are narrower and smaller in scale, characterised by cottage industry, smaller residential and more variety in form, scale and material. Snickets, alleys and walkways lead into the depths of plots giving access to yards and buildings behind.

This hierarchy of streets relates to the method of setting out and developing medieval market towns. The burgage was the standard unit of urban land and the remnants of these plots form the basis of the contemporary morphology of many towns. Burgage plots were so called as they

47 Mark Girouard, *The English Town* (Yale: Yale University Press, 1985) p.18.
48 Neil Powe, Trevor Hart and Tim Shaw, *Market towns: Roles challenges and prospects* (London: Routledge 2007), p.157.
49 Mark Girouard, ibid. p.14.
50 Orla Murphy, *Town* (Westport: Orla Murphy, 2012) p.53.

Fig. 2.25. Ludlow: Lanes run parallel and perpendicular to the streets, characterised by less formal frontages and changes of scale.

Fig. 2.26. Hay-on-Wye: A pedestrian lane with irregular, small scale buildings.

Fig. 2.27. Ludlow: A yard behind the market square in the depth of a burgage plot.

Fig. 2.28. Tewkesbury: A pedestrian alley leading into the depth of a burgage plot.

were held by burgage tenure; plots were rented from the landowner and came with a series of responsibilities, such as payment of annual rent and defence of the town in times of conflict. The burgage tenant had the right to sell his plot or buy another, a freedom that did not exist on agricultural land.[51] Where a landowner laid out burgages, the tendency was to standardise plot dimensions in a gridded form of plots between two streets with a lane behind (fig. 2.25 & 2.26). However, this is often manipulated to suit the terrain, lending an organic dimension to morphology.

Plots have a characteristic long, thin shape with the residence and sometimes retail facing the street and the remainder given over to yards, growing space, gardens or workshops. Burgage plots were 'mixed use' with domestic, agricultural and industrial uses side by side, an *"intimate connection of industry and domestic life long remained normal: the exact antithesis of the segregated, legally sterilised residential quarter of today"*[52]. While a landowner laid out plots, the tenant constructed the individual buildings leading to differences in height and detail between adjoining buildings. [53] Where pressure on land was intense, 'backland' sites- *"small often irregular courtyards which were in the last remains of the original open areas of the plot"*[54]- were developed with smaller buildings in what Conzen terms the burgage cycle (fig. 2.27 & 2.28). This is characterised by:

> *"the progressive filling in with buildings of the backland of burgages, terminating in the clearing of buildings and a period of urban fallow prior to the initiation of a re-development cycle."*[55]

This cycle of building, infilling, clearing and rebuilding was in most cases ungoverned and developed through interactions and negotiations between neighbours. The variation in building type, scale and detail was a result of this organic process of change and renewal within a fixed pattern of streets and plots:

> *"Buildings in originally medieval towns were reconstructed or altered piecemeal, often resulting, in time, in great variations in building form, age and materials along particular streets. However, the frontage lines of streets, once established, generally remained the same through the piecemeal changes in structures abutting them."*[56]

51 Mark Girouard, ibid. p.67.
52 Lewis Mumford, ibid. p.328.
53 David Lloyd, *The making of English towns: 2000 years of evolution* (David & Charles, 1984) p.46.
54 David Lloyd, ibid. p.59.
55 JWR Whitehand, 'British Urban Morphology: The Conzenian Tradition' *Urban Morphology,* 2001, 5, 2, 103-109 (p.104).
56 David Lloyd, ibid. p.46.

Fig. 2.29. Ruthin: Victorian worker's cottages line the cutting of the now removed railway, a victim of the Beeching Review of the 1960s.

2.3.5 Summary

As has been shown, medieval market towns grew around places of strategic importance, trade or regional government. The founding principles were often laid out by a local ruler or landowner using the burgage system, creating long thin plots that through development and redevelopment over time resulted in a dense built fabric of streets, lanes and yards. Development of each plot was carried out by negotiation between individuals, resulting in a seemingly chaotic mix of uses and ownerships. The variety of buildings focused on streets and squares is an important characteristic of medieval market towns. The factors that make these places so attractive (visually and as places to live) were achieved by negotiation and neighbourliness with a minimum of strategic governance. Their growth was evolutionary; their distinctive character and sense of place was created by the actions and decision of many over an extended period of time.

Since the medieval period, there have been a number of major challenges that have confronted the market town:

- The English Civil War
- The growth of railways in the 19th century (fig. 2.29)
- The declining importance of agriculture[57]
- The growth of industry during the industrial revolution
- The decline in traditional markets
- Migration of populations from rural to urban environments
- Changing services provision and phases of centralization/decentralization[58]

Despite these challenges, market towns remained intact in terms of their urban form until the mid twentieth century. While changes to administration, industry, trade and transport impacted on towns, their role as a service centre to a rural hinterland was sustained. The next section will explore the contemporary challenges faced my market towns in more detail.

57 Alison Caffyn, 'Market town regeneration; challenges for policy and implementation' *Local Economy*, 19 (2004), 8-24 (p.9).
58 Neil Powe Trevor Hart and Tim Shaw, *Market towns: Roles challenges and prospects* (London: Routledge 2007), p.44.

Fig. 2.30. Ruthin: Twentieth century additions to the south slope of the town, below St Peter's Church.

Fig. 2.31. Ruthin: The Galsdir housing estate is located on a ring road around the town and is poorly connected to the historic core, increasing reliance on the car.

2.4 The market town in the twenty-first century

2.4.1 Introduction

This section will examine the contemporary challenges faced by market towns in the twenty first century. Their varied functions will be described, before consideration of the opportunity presented by localism and neighbourhood planning for towns is explored. Subsequently, three major pressures are explored: preservation and conservation; edge development and housing growth; and, mobility and employment. The focus will be on the effect of these pressures on the sense of place and character described in the previous section.

As the previous section demonstrated, market towns have historically provided services to their surroundings and acted as a centre for the rural community. Their origins as strategically located market places that linked into European trade routes made them the focus of their hinterland and a connection to the wider world. Today, towns still rely on their hinterland to sustain their shops and services and those living in the hinterland rely on the town for everyday trade, entertainment, festivals and community events. In 2004 the Countryside Agency identified 499 towns in England acting as 'service hubs' and providing this market town function.[59] Recent Government policy has concentrated on these towns as a focus for growth and regeneration of the rural economy. Depending on their location, population, demographics and character, towns today have a diverse range of roles and functions beyond this service centre role.

The challenges facing market towns are wide ranging and have led to mixed fortunes. Some rural areas have experienced a boom in population through 'counter-urbanisation'. This migration from the cities is driven by lifestyle choice and enabled by transport and infrastructure improvements, resulting in increasing demand for rural housing and building of new edge-of-settlement housing estates, driving house prices up and exacerbating shortages of affordable housing (fig. 2.30 & 2.31). This can result in the out-migration of many younger residents to larger towns and cities where employment and housing possibilities are more varied, leaving an ageing population, provincial in their outlook.

Meanwhile, other towns have experienced a period of stagnation following the decline of the rural economy. Changing expectations of quality, cost and convenience and the pressure of economies of scale have lead to the decline of many rural services. Between 1997 and 2002 specialist stores (for example butchers, grocers and delicatessens) were closing at a rate of fifty stores per week, while non-chain public houses were closing at a rate of twenty

59 Countryside Agency, *The state of the Countryside* (Wetherby: Countryside Agency, 2003). Service hubs were defined as having a bank, building society or solicitor, more than ten retail outlets, a higher than average number of shops, a doctors surgery and a supermarket.

Fig. 2.32. The commodified countryside: The rural as presented at the 2012 London Olympics opening ceremony.

Fig. 2.33. The productive countryside: WInd turbines over Ardrossan, Scotland.

Fig. 2.34. Flooding in Tewkesbury, 2013: The impacts of climate change will increasingly be felt by rural places.

per week. Banks and post offices have become increasingly centralised in order to maintain their competitiveness; over 1,000 communities lost their banks between 1997 and 2002 and over 3,700 post offices were closed between 1999-2004.[60] Since the 2008 recession, the New Economics Foundation has reported further closures totalling 17,880 retailers.[61] A decline in the economic prosperity of towns leaves them with limited capacity to manage change, regenerate and attract business.

2.4.2 The functional roles of contemporary market towns

As seen in the previous section, the majority of market towns were founded on trade and commerce and an interdependence between town and hinterland. However, the changing nature of the rural in a global society is altering the function of rural places and their relationships with the city, nation and world. In contrast to the legible ordered society of the historic market town, a gateway to trade and services for a defined hinterland, over the past two centuries towns have faced radical and rapid change. Woods suggests the rural has been repositioned to serve two new and very different purposes – a playground (fig. 2.32) and a dumping ground– as the traditional rural economy declines.[62] The countryside becomes a functional place of production and consumption for the city, with energy (figure 2.33), food, coal, oil, gas and fabrics sourced from rural places around the world. Changing patterns of living, working and leisure and increasing mobility have led changing patterns of migration between the city and rural areas and increasing commodification of the countryside as a place to live, work and play.[63]

With the changing nature of the rural economy and impact of globalisation, market towns increasingly serve a variety of functions. Powe identifies five functional roles:[64]

- Service centres- the traditional market town role of a town offering services to the hinterland;
- Visitor attractions- often remote from urban areas or close to areas of natural beauty, national parks or coastlines.
- Locations for specialised employment- towns dominated by one employer, such as the military or manufacturing, often characterised by young populations.

60 Molly Conisbee and Mary Murphy, *Clone Town Britain: The Loss of Local Identity on the Nation's High Streets* (London: New Economics Foundation, 2004) p.2.
61 New Economics Foundation, *Reimagining the high street: Escape from clone town Britain* (London: New Economics Foundation, 2010) p.3.
62 Michael Woods, 'Reassembling Rural Places in the Global Countryside' presented at *Re-imagining Rurality Conference*, University of Westminster, 27-28 February 2015.
63 Michael Woods, *Rural* (London & New york: Routledge) p.1.
64 Neil Powe Trevor Hart and Tim Shaw, *Market Towns: Roles Challenges and Prospects* (London: Routledge 2007), p.29.

Fig. 2.35. Abergavenny: A town with good transport links to Newport, Cardiff and the Midlands experiencing housing growth.

Fig. 2.36. Hay-on-Wye: A town with a a distinctive focus on books and home to the Hay Literary Festival.

- Commuter towns- towns attracting residents seeking a small town 'lifestyle'. Many have good transport links to allow easy travel to urban centres (fig. 2.35).
- Housing the retired- attractive market towns are popular locations for retirement due to their perceived slow way of life, impacting on house prices and services demand.

Similarly in the Welsh context, Woods identifies a typology of small towns based on population, economic activity and service function:[65]

- Sub-regional centres- providing high order service functions (eg: accident & emergency hospitals, tertiary colleges and law courts) to an extensive rural area; a strong employment base and an increasing population.
- Anchor towns- providing commercial, social and administrative functions to a rural district. While lacking the high order functions above, these towns may have a community hospital, secondary education and an established retail base and will provide significant employment for the local area (eg: local government offices).
- Island towns- located close to larger centres but strongly independent, with enough employment to provide for the town's population and relatively little commuting. However, the retail base tends to be limited.
- Niche towns- capitalizing on specialist interests or markets (fig. 2.36). They are able to support higher than expected levels of employment and service provision as it is supported by tourism and visitors from outside the locality.

The typologies presented by Wood and Powe demonstrate that the role of the market town in the contemporary rural context is varied and complex. While historically trade was the reason for foundation and growth of medieval market towns, today they serve a range of roles depending on their size, population, location, service provision, level of employment and demographic. This suggests that market towns need to be understood on a case-by-case basis; a single approach will not be applicable to all towns and as such policy and planning measures need to account for their distinctiveness and individuality.

2.4.3 Rural policy and the market town

While Woods and Powe identify a wide range of functions and types of town, the recent focus of policy has been to define market towns as service hubs for rural areas, reinforcing their historic role as a focus for rural life. This builds on a long standing tradition in UK land

65 Michael Woods, Market Towns in Rural Wales: A Differentiated Geography' in *Rural Wales in the Twenty-First Century: Society, Economy and Environment,* edited by Paul Milbourne (Cardiff: University of Wales Press, 2011) pp.149-168 (p.161).

planning of 'settlement policy' that classifies a hierarchy of towns defined by their potential to accommodate future development and act as service centres.[66] By confining development to larger settlements that already provide a service provision, policy aims to confine development to selected towns, limit expansion into the wider rural environment, and build a critical mass of population to support existing services. A review of this policy suggests it was more successful in addressing the physical environment than in promoting rural services, economic development, or addressing social challenges.[67]

Building on work by the Civic Trust and Rural Development Commission in the 1990s, the Rural White Paper (1995) and the revised Rural White Paper *'Our Countryside: The Future - A Fair Deal for Rural England'* (2000) identified the value of market towns to the rural economy, but highlighted that the failings of the market town were due primarily to their size and location. It highlighted the problems created by the decline of industry, traditional agriculture, mining and textiles as well as the impact of large foodstores and the shift of services to larger centres. Early policy aimed to sustain the quality of life of rural settlements but more recently market towns have become the centre of rural regeneration initiatives to create sustainable rural communities. In line with earlier policy, scale remains a major factor; policy aims to develop more self contained rural communities with reduced need to travel, greater potential for population expansion and more integration between town and hinterland.[68]

The Rural White Paper launched the Market Towns Initiative (MTI), a significant vehicle for rural regeneration. While maintaining government support for a hierarchy of towns, the three-year MTI was aimed at realising regeneration projects in market towns through a strategic action planning process to address socio-economic and environmental problems. Run by the Countryside Agency and administered by regional development agencies, 140 pilot towns were selected based on their potential to act as a service centre and a centre for growth.[69] Selected towns were required to complete a comprehensive town health check before drafting an action plan for development in order to apply for funding, distributed by Regional Development Agencies (RDA's). While regional approaches varied, action planning driven by local people was at the core of the MTI and requires a broad range of stakeholders across a town to be involved. Caffyn suggests that it required both a vertically integrated (national government to neighbourhood) and a horizontally integrated hierarchy (from local to regional scale).[70] While some towns benefitted from the programme, many of the initial 140 found the approach difficult to navigate and the paperwork required complex. Difficulties bridging from policy

66 Neil Powe Trevor Hart and Tim Shaw, ibid, p.44.
67 Neil Powe Trevor Hart and Tim Shaw, ibid, p.45.
68 Neil Powe and Susannah Gunn, 'Housing development in market towns: Making a success of 'local service centres'? in *Town Planning Review* 79.1. (2008) pp. 125-148.
69 Alison Caffyn, 'Market town regeneration: Challenges for policy and implementation' *Local Economy*, 19 (2004), 8-24 (p.8).
70 Alison Caffyn, ibid. p.9.

Fig. 2.37. Hebden Bridge: The Renaissance Market Town programme has led to regeneration of public spaces in the town including the river frontage and pedestrianisation of part of the high street.

Fig. 2.38. Hebden Bridge: Bauman Lyons Architects Town Hall is a long term result of the RMT process.

to implementation hindered the programme, further complicated by a lack of personnel and resources at some regional agencies.[71]

Perhaps the most successful partnership to emerge from the MTI was Yorkshire Forward's Renaissance Market Towns Programme (RMT). This regionally-led programme has been implemented across Yorkshire and from a funding-driven starting point has evolved into a strategy-led approach. The 10 year programme launched in 2003 aspired to deliver sustainable communities through achievable but ambitious twenty five year targets set by local people, led by the RDA. Through the establishment of town teams and collaboration with regional design teams, a wide range and scope of projects have been realised, including physical as well as social and economic regeneration. Examples include the Regeneration and Renewal Award-winning revitalisation of a dilapidated nursery in Whitby into a sustainable community hub; revitalising Fielden Wharf in Todmorden into a riverside walk and public space; and the community asset transfer of Todmorden Town hall and its renovation and extension by Bauman Lyons Architects (fig. 2.37 & 2.38).

While these projects have been successful, they have been implemented by national and regional government rather than being place-specific and locally driven. This 'guiding hand' with the ability to provide funding for both developing a plan and for delivering projects has ensured success. With resources now at a premium and the government implementing increasingly stringent budget restrictions, these funding-driven approaches are increasingly difficult for local authorities to justify. Furthermore, government-initiated programmes such as the MTI are often shortlived and transitory, whereas small towns require sustained, long term and place sensitive processes.[72]

2.4.4 Conservation & preservation

The UK Government's National Planning Policy Framework states the need to "*conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations*".[73] The historic townscape and buildings are assets that create a strong sense of place and should be integral to renewal efforts.[74] In most historic settings, historic character is preserved through the establishment

71 Alison Caffyn, ibid. p.22.
72 Neil Powe, Rhona Pringle & Trevor Hart, 'Matching the process to the challenge within small town regeneration' *Town Planning Review,* 86: 177-202 p.196.
73 Department for Communities and Local Government, *Planning Practice Guidance: Conserving and enhancing the historic environment* (London: Department for Communitites and Local Government, 2014). Available at <http://planningguidance.planningportal.gov.uk/blog/guidance/conserving-and-enhancing-the-historic-environment/overview/> [accessed 18.08.14]
74 Avi Friedman, *Planning small and medium sized towns: Designing and Retrofitting for Sustainability* (London: Routledge, 2014) p.143.

Fig. 2.39. Ludlow: New housing within the conservation area, designed in a pastiche of medieval and Georgian styles.

Fig. 2.40. Pier Arts Centre, Orkney by Reiach & Hall, cited in New Design in Historic Settings as an exemplary addition to a historic fabric.

of conservation areas and listed building protection for the historically valuable buildings. Introduced in 1967 under the Civic Amenities Act, conservation areas have helped preserve and restore the finest townscapes in the country and ensure development of a high quality in historic areas.[75] Policy is explicit in explaining conservation is not a passive exercise but an active process of managing change. However, the challenges of building in conservation areas, such as the additional cost and difficulty in amending existing buildings, limited plot sizes, lack of parking, potential for conflict with local people and an additional layer of planning bureaucracy can deter developers from historic cores, leaving them in a state of atrophy (fig. 2.39). As Knox and Meier suggest, gap sites and derelict buildings, especially in prominent locations, can have serious implications on confidence in a place and its future.[76]

Knox and Meier identify the importance of a cumulative legacy in creating character, texture and place.[77] Simiarly, Friedman asserts the need to consider heritage not as a fixed point in time but diachronically, a changing process in which buildings adapt and change over time.[78] Friedman identifies three approaches to conservation in small towns:

> *"The conservationist view encourages the strict preservation of heritage structures […] a functionalist optic, on the other hand, mediates heritage conflicts that arise between economic and cultural values. The sense of place perspective of heritage combines the two preceding principles of preservation. Instead of focusing on specific buildings, this view captures the uniqueness of the community as a whole. In other words attractive communities are organic because they develop upon evolving social and built foundations."*[79]

The task of integrating new buildings into historic contexts has been subject of a number of recent guidance reports. 'New Design in Historic Settings' published by Historic Scotland and Scottish Government aims to promote the value of new design in historic places and identifies a number of principles drawn from best practice to act as prompts in the design process (fig.2.40).[80] Similarly, the Commission for Architecture and the Built Environment (CABE) and English Heritage report 'Building in Context', identifies fifteen best practice exemplars in sensitive heritage contexts.81 The report highlights a range of building types, scales, and responses to context, from historicism to an autonomous architectural language. The report

75 Ralph Skea, 'The strengths and weaknesses of conservation areas' *Journal of Urban Design*, 1996, 1, 2, 215-228 (p.215).
76 Paul Knox and Heike Mayer, ibid. p.75.
77 Paul Knox and Heike Mayer, ibid. p.75.
78 Avi Friedman, ibid.p.143.
79 Avi Friedman, ibid. p.143.
80 These are urban structure, urban grain, density and mix, scale, materials and detailing, landscape, views and landmarks and historical development. See Historic Scotland & Scottish Government, *New Design in Historic Settings* (Edinburgh: Scottish Government, 2013) section 3.1.
81 English Heritage & CABE, *Building in Context* (London: English Heritage, 2001).

Fig. 2.41. Ludlow: MacCormac Jamieson Pritchard's Tesco Ludlow adapts the typical supermarket shopfront to a conservation area dominated by burgage frontages.

Fig. 2.42. Brecon: Light industrial units located on a peripheral location.

Fig. 2.43. Ludlow: New housing located outside the conservation area.

demonstrates approaches to successfully integrating new buildings into historic contexts; a series of action points drawn from the case studies recommend collaboration, careful study of context, contemporary use of traditional materials and high environmental standards as a basis for high quality design (fig. 2.41). The report further outlines clear indicators of compromise which are to be avoided: stepping down as a new building meets a neighbour; random application of historic elements; 'matching' materials, for example panellised brickwork; and, scaling up- the reuse of motifs from small scale vernacular buildings on a larger proposal, resulting in a pastiche.[82]

2.4.5 Edge development & housing growth

> *"The countryside around towns weaves in and out of the built up area and is often characterized by new development, derelict and brownfield sites, retail and industrial parks, land fill sites and reservoirs."*[83]

The impact of restrictive planning legislation, limited plot sizes and potential local resistance is to deter developers from the historic core. The opportunity to build on the edge of settlements outside conservation areas with cheaper land cost and the possibility of larger plots is, in many cases, more attractive to investors and developers. This has led to the growth of edge-of-town industry, business and housing around historic town cores at the interface with the landscape (fig. 2.42 & 2.43). Gallent describes this fringe as a place of business parks, commerce, retail, roads and housing estates, industrial dereliction and recreation characterised by poor quality architecture and anonymous development (fig. 2.44 & 2.45).[84] Shoard similarly identifies this interface between towns and surrounding as an often-neglected area in planning policy, where councils are reactive rather than proactive. She describe how local councils:

> *"continue to allow the interface to be shaped largely by the planning applications that happen to come in, rather than by proactive planning with the use of instruments such as compulsory purchase and town plans to assert a public realm."*[85]

The lack of planning control at the edge of towns has led to new development around the periphery of historic cores, served by new roads and bypasses. These often mono-functional estates are rarely integrated into or well connected to the historic town cores and have little reference to their character or sense of place.

82 English Heritage & CABE, ibid. p.5.
83 The Countryside Agency, *The countryside in and around towns* (Wetherby: Countryside Agency, 2005) p.4.
84 Nick Gallent, ibid. p.81.
85 Marion Shoard, ibid. p.122.

Fig. 2.44. Abergavenny: A fringe of light industrial uses and disused land surrounds the south of the town.

Fig. 2.46. Abergavenny: New housing developments are located around the periphery of the historic town.

Fig. 2.45. Abergavenny: Light industrial units located on a peripheral location.

The UK Government's housing policy aims to deliver a million new homes by 2020, the majority of which will be in or around existing settlements.[86] The Taylor review highlighted the potential impact of planned new housing on market towns, suggesting many towns may expand by up to 25 percent.[87] If existing patterns of development continue, many towns will undergo considerable housing expansion, particularly in peripheral areas (fig. 2.46). The majority of these homes will be around larger market towns and will supply external sources of demand, such as counter-urbanisers. New housing has a role in preventing the stagnation of local services and retail by increasing the consumer base. However, evidence suggests that there are low levels of engagement from in-migrants with local services from housing in peripheral locations.[88]

A lack of government support for affordable housing has led to severe shortages; only 13 percent of housing in rural areas is affordable, compared to 21 percent in urban areas.[89] This is compounded by the increasing desirability of some market towns as places to live, which increases the competitiveness of the housing market, raising house prices and can price out local people.[90] In the longer term it is often newcomers who oppose new housing and particularly new affordable or council housing, that are seen as an affront to *"the social and aesthetic qualities of the English village…"* where development *"must conform […] to the prevailing urban view- picturesque, ancient and unchanging."*[91]

Friedman suggests that while dense historic centres have a density of 475 dwellings per hectare, the low-density suburban estates being developed around towns can be as low as 8 dwellings per hectare.[92] Often aimed at the commuter market, where travel to work, school, shop and play is ingrained in everyday life, these edge developments can be seen as at an advantage against town cores, with affordable prices and easy access to ring roads and by-passes.[93] In their excessive land consumption, lack of integration and community, mono-functionality, limited connectivity and their separation from the historic cores they surround, suburban estates do little to encourage placemaking or community, as Taylor describes:

> *"As the estates grow, doughnutting traditional market towns, the people living in them have to travel in to town to work, to shop or to visit a café – almost invariably by car, congesting town centres and harming the environment. There is no grand vision, more a*

86 Louise Smith, *Planning for new housing* (London: UK Government, 2016) p.3.
87 Matthew Taylor, ibid. p.53.
88 Powe and Gunn, 'Housing development in market towns: Making a success of 'local service centres'?' in *Town Planning Review* 79.1 (2008) pp.125-148 (p.143).
89 Commission for Rural Communities, *State of the Countryside* (Wetherby: Countryside Agency, 2003) p.48.
90 Nick Gallent, ibid. p.150.
91 H Newby, quoted in Nick Gallent, ibid. p.150.
92 Avi Friedman, ibid. p.31.
93 Nick Gallent, ibid. p.124.

Fig. 2.47. Ash Sakula's Tibby's Triangle housing scheme in Southwold.

Fig. 2.48. Abode, Great Kneighton by Proctor & Matthews Architects

gradual creep, with no community cohesion, and no sense of place."[94]

There exists a significant opportunity to renew existing towns, creating new sustainable neighbourhoods to accommodate housing growth and that are designed to respond to the sense of place. Climate change will continue to affect how buildings, spaces, urban realm and landscapes are designed; the Bishop Review suggests that, *"the concept of sustainable development will need to be translated into real and tangible design solutions if our towns and cities are to avoid serious problems and costs in the future."*[95] However, if the approach is 'business as usual' and housing is developed with little thought for sustainability, place or community, there is a risk that *" it will simply deliver yet more anonymous housing estates and places where people have to rather than want to live."*[96] The compaction and densification of existing urban areas advocated by Richard Rogers and the Urban Task Force[97] offers a route to counter this; however, it is unlikely the number of new houses required by government targets can be accommodated in existing town cores and some degree of peripheral development, using brownfield and derelict sites in preference to greenfield sites, or more 'nodal' development in the periphery of many towns will be likely.

There are examples of development that break the formulaic estate model described above, but developers willing to challenge the norm and engage in alternative approaches are few. Architects such as Proctor & Matthews Architects, Jonathan Hendry Architects and Ash Sakula Architects (figs. 2.47 & 2.48) have designed and built a number of housing projects that engage with the edge of settlements in a creative manner. These projects learn from their place, analysing material, form and typology to create contemporary homes rooted in their local environment. These examples demonstrate that good quality edge development is possible to achieve and suggest possible routes to bind new development into its place.

2.4.6 Mobility and employment

The modern rural economy is socially and demographically increasingly similar to urban society, with few inhabitants employed directly in agriculture.[98] Changing working patterns have attracted a growing number of people to the countryside as a place to live, drawn by a

94 Matthew Taylor, ibid.p.52.
95 Peter Bishop, *The Bishop Review: The Future of Design in the Built Environment* (London: Design Council, 2011) p.5.
96 Matthew Taylor, ibid. p.54.
97 Urban Task Force, *Toward Strong Urban Renaissance* (London: Urban Task Force, 2005).
98 Matthew Taylor, *Living, Working Countryside: The Taylor Review Of Rural Economy And Affordable Housing* (London: Department for Communities and Local Government, 2008) p.123.

Fig. 2.49. Ruthin: St Peter's Square is dominated by traffic following the addition of parking and a traffic island during the 1970s.

perceived higher quality of life and increased ability to commute to cities.[99] The increased ability to travel has been instrumental in enabling this shift; those living in rural areas accept longer commuting times to combine the levels of income associated with urban employment with the perceived 'lifestyle' benefits of rural life. This has the effect of increasing house prices, often pricing lower-earning local people out of the market. This was exacerbated by the right to buy policies of the 1980s, which dramatically reduced council and social housing stock and thereby increased waiting lists for affordable housing.[100]

The effect of the hierarchical settlement model promoted by recent government policy has aggravated this problem, increasing travel distances between towns delivering service centre functions. The dispersed nature of settlements, low density of habitation and relatively low cost of motoring has made residents more inclined to shop, work and be entertained further from their homes. Findlay describes a 'culture of mobility' and identifies rural 'hypermobility' as an embedded trait in rural society:

> *"The dispersed nature of jobs in rural areas coupled with cheap car-based transport and uncongested rural roads has led in many areas to an increasingly dispersed and far-reaching spatial economy, with little friction of distance; rural dwellers choosing to live and work with little consideration for how far they travel. This is coupled with a growing 'two way' pattern of commuting, the traditional model of rural residents commuting into towns and cities being replaced by 'commuting fields' in which people are increasingly mobile, with increasingly powerful labour market connections which cut across simple categorisations of settlement type and urban/rural status".*[101]

The negative impact of increasing car ownership and traffic on the conservation of the market town has been a focus for policy since the 1960s (fig.2.49). The influential report in 'Traffic in Towns' published in 1963 identified the unsuitability of town cores for heavy goods vehicles and large volumes of traffic and gave planners a series of tools to tackle the effects of vehicles on the environment: traffic containment, segregation, corridor and distributor roads and precincts.[102] Lauded by the professional and lay press, its application caused a radical transformation in the appearance of some towns and cities, including pedestrianisation,

99 Alun Howkins, *The Death of Rural England; A Social history of the Countryside since 1900* (London: Routledge, 2003) p???
100 Matthew Taylor, *Living, Working Countryside: The Taylor Review Of Rural Economy And Affordable Housing* (London: Department for Communities and Local Government, 2008)
101 Allan Findlay et al, 'Mobility as a driver of change in rural Britain: an analysis of the links between migration, commuting and travel to shop patterns,' in *International Journal of Population Geography* 7.1. (2001) pp.1-15 (p.13).
102 Simon Gunn, 'The Buchanan Report, Environment and the Problem of Traffic in 1960s Britain' *Twentieth Century British History* 22.4 (2011) (pp.521-542. (p522).

Fig. 2.50. Ruthin: The local council offices are flanked by a large car park; employees commute from across the county. However, it creates a poorly defined edge to the town.

Fig. 2.51. Ruthin: A number of superstores and supermarkets surrounded by car parking are located around the periphery of the historic core.

proliferation of multi- storey car parks and construction of new roads.[103] While supporting the integration of the car into the environment, it has resulted in the construction of ring roads, by passes and distributor roads that skirt historic cores and often create a physical barrier between cores and new development. Since this report first identified the risk presented by traffic to historic environments, rural road use has increased, partly due to the ease of access to towns facilitated by the resulting new roads and motorways. Accommodating additional parking and larger numbers of vehicles in market towns is a challenge to the compactness and perceived quietness that makes them attractive places to live (fig. 2.50 & 2.51).[104]

Recent changes to government strategy recognise the need to promote clustering of services, housing and employment to encourage sustainable patterns of movement. While improving public transport seems an obvious policy to combat car use, the small populations of many rural towns affects the viability of public transport systems.[105] Creating appealing cost effective links between places to work, shop and live is a challenge for policy makers in the face of the freedom of personal mobility provided by the car.

Commuting to workplaces in urban areas, towns or the countryside is a major generator of traffic in market towns. This is particularly noticeable in the rural incomers; those moving from cities to rural areas are often prepared for greater commuting times to employment than long-term residents.[106] The need to commute could be counteracted by encouraging more working from home or within the community rather than in urban premises requiring a commute. Rural areas see more home working than the national average[107] and small businesses have become a major growth area in the rural economy:

> *"The rural economy is significant, contributing 14% to the national economy. It is diverse, stable and growing faster than urban economies, although it is now compositionally very similar. Once largely agrarian, now only 7.5% of people are employed in agriculture, with the most rural areas seeing levels of entrepreneurial activity rivalled only by inner London."*[108]

With increased information and communication technology and high speed infrastructure to small towns there is increasing potential for flexible or home working arrangements. Almost 25% of the UK working population now live at their workspace or work from home at least

103 Marco Bianconi and Mark Tewdwr-Jones, The form and organisation of urban areas: Colin Buchanan and Traffic in Towns 50 years on' in Town Planning Review 84.3 (2013) pp.313- 336. (p.314.
104 Neil Powe Trevor Hart and Tim Shaw, ibid. p.150.
105 Avi Friedman, ibid. p.72.
106 Allen Findley et al, ibid. p.13.
107 Tim Dwelly et al, *Under the Radar: Tracking and supporting rural home based businesses*. Report for the Commission for Rural Communities, Cheltenham, and Live Work Network, Penzance (2006) p.4.
108 Matthew Taylor, ibid. p.123.

one day a week.[109] The provision of a place to work is a component in housing Development Quality Requirements and its inclusion in market housing could assist in increasing this practice. Similarly, there is evidence that a major barrier to growth in self-employed business is limited workspace available in market towns into which businesses can expand. Rural business hubs, flexible office space or co-working space as well as greater introduction of live-work homes could provide alternative spaces for working from within a community.

2.4.7 Localism and Neighbourhood planning

In England, the Localism agenda is transferring decision making to local people and top-down is being replaced by bottom-up, with the aim of *"reinvigorating the most local forms of government – parish, town and community councils – allowing them to take control of key local processes, assets and services tailored to the needs of local residents"*[110]. Neighbourhood planning, a core principle of the Localism Bill, offers communities increased power to shape their environment by developing their own local plans, "*the 'spatial expression' of the economic, social and environmental ambitions of local areas and communities, as the basis for most planning decisions."*[111] Development is incentivised by allocation of funds for local projects such as parks, infrastructure and healthcare.

Localism is the biggest shake up of the planning system since its foundation. It presents a unique opportunity to redistribute knowledge and decision-making power over the built environment to the people it affects every day. Localism aims to generate locally led plans for the future of places, tailored to the needs of their place. Solutions designed, developed and delivered locally are often better placed than central initiatives to understand local conditions and needs, and to engage people effectively in the process.[112] Responses that are developed and delivered locally provide for real local ownership and projects making better use of local knowledge, assets and infrastructure.

However, localism also presents a dilemma: The Government has traditionally found it difficult to support genuine local solutions while achieving national impact and scale.[113] Research suggests the 63 percent of local plans in rural areas have been formulated to maintain the *status quo* or resist new development.[114] There exists a conflict between people powered localism,

109 Frances Holliss, *Beyond live/work: the Architecture of Home-based work* (London: Routledge, 2015) p.22.
110 RIBA, *Guide to Localism Opportunities for Architects: Part One: Neighbourhood planning* (London: RIBA, 2011) p.7.
111 RIBA, ibid. p.4.
112 Laura Blunt and Michael Harris, *Mass Localism: A Way to Help Small Communities Solve Big Social Challenges. A Discussion Paper* (London: NESTA, 2010) p.20.
113 Laura Blunt and Michael Harris, ibid. p.3.
114 Turley, *Neighbourhood Planning: Plan and Deliver?* (London: Turley, 2012) p.26.

represented by neighbourhood planning, and policies for growth underpinning government strategy.

Whilst not adopting Localism, Welsh Government has identified "the physical quality of the town and its rural area" as a key component in developing "vital and vibrant places."[115] Welsh Government's 'Regeneration of Town Centres' report recommends that within the framework of the Local Development Plan, individual towns should have a comprehensive plan in place, developed by a partnership of stakeholders and the community.[116] Similarly, the government funded 'Cynefin' programme aims to bring together community groups, businesses and organisations to improve communities.

These programmes offer an opportunity for local people to 'reclaim the initiative' and for the people who know their places best to influence its future. Importantly, the increasing role of community-led initiatives has consequences for how we as designers conceive the urban environment and how successful community place making can be achieved.

115 Welsh Government, *Vibrant and viable places: New regeneration framework* (Cardiff: Welsh Government, 2012) p.4.
116 National Assembly for Wales Enterprise and Business Committee, *Regeneration of town centres* (Cardiff: National Assembly for Wales, 2012) p.37.

Fig. 2.52. A medieval market town: compact, dense, a sense of order, with a sense of place and character. The town is strategically sited alongside a river and has a central market place.

Fig. 2.53. Over time, new buildings are added within the burgage system, older buildings are rebuilt and small-scale development happens at the fringes of the town.

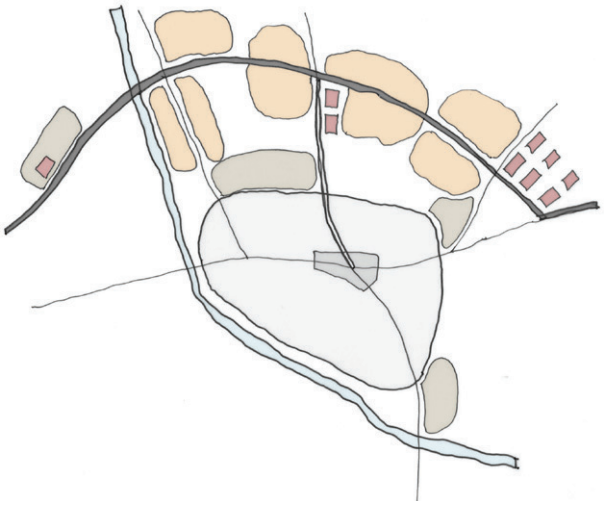


Fig. 2.54. During the twentieth century the growth of the car leads to by-passes and distributor roads. These facilitate edge development of housing, retail and industrial uses in zoned developments with little relationship to the historic town core or its sense of place.

2.5 Findings

This chapter has explored the market town: Its definition, historic growth and contemporary challenges. The focus has been on the sense of place in market towns- their built environment and physical character. What emerges from the study is that market towns have a strong sense of place and character derived from their medieval origins. The historic market town represented an ordered life; a compact urban nature, hierarchy of public spaces, relationship with the landscape and a gradual process of development and redevelopment forms the basis of their sense of place (fig. 2.52 & 2.53). However, over the last half century the planning system has failed towns. Development has been allowed that has no response to histroic patterns of growth. Mono-functional estates and retail nodes along distributor and ring roads skirt town cores. The compact nature of medieval towns is rejected in favour of low density, car-centred peripheral development (fig. 2.54). Market towns have lost their coherence and legibility.

Population, freestanding form and ability to act as a focus for rural life are identified as criteria in defining a market town. Market towns have a scale that allows them to be understood in their entirety, are an urban entity in their landscape forming a symbiotic relationship with a hinterland, and have a density of services provision for residents and the surrounding areas. These factors suggest that market towns have a distinct size, form and relationship with the landscape that help define their sense of place.

The historic character and sense of place in market towns and their characteristics has its origins in the actions, negotiations and decisions of many over a long period of time, living and working in mixed use communities. While medieval town growth or foundation was often planned by landlords, individual burgage holders were able to develop their plots as they desired with few restrictions. The prominence of public buildings such as churches, castles and market halls create focal points within a town, while the tight knit grain derived from burgage cycle creates a dense urban character. The traditional form of market towns demonstrates the benefit of a compact form placing facilities and services together, with countryside in easy walking distance. While buildings may have similarities in form or material, gradual alteration and addition over time creates variations in scale, detail and form. A formal pattern of streets and lanes, often with formal facades, is combined with informal alleys and snickets within burgage blocks, accessing mews and yards behind where informal development patterns dominate. The contrasts between the formal and informal, scales of space and the contrast between urban and rural contribute to the sense of place.

Market towns today face multiple threats to their sense of place, including changing roles, increasing mobility, preservation of historic cores, edge development and changing patterns of employment (fig. 2.55). The preservation of historic cores through conservation areas and listed

Strength	Weakness
• Strong sense of place & character • Historic legacy • Picturesque • Symbiotic relationship with hinterland • Quintessential part of the English countryside • Strong sense of community and local pride • Markets, events, festivals • Good service provision (in some towns) • Attractive places to live & work	• Expensive house prices in some areas • Lack of affordable housing • Policy promoted edge development and the 'donut effect' • Decline of traditional market and agricultural economy • Fall between rural and urban policy • Clone Towns' and Ghost Towns- loss of retail base or generic retail offer • Loss of young people by outmigration • Ageing populations can be parochial in outlook • Lacking in strong leadership • Public realm and streetscape can be poorly maintained or designed
Opportunity	**Threat**
• Distinctive and unique places with unique selling points • Enhancing the sense of place • Population growth through in-migration & counter urbanisation • Community-led planning • Strong independent mind set • Growth of home working	• Over-reliance on one source of income or employment in some towns • Reliance on the car and the related need for parking, ring roads, and vehicles in town centres • Inappropriate development • Housing growth on town fringes • Decline of locally owned and run businesses • Reduced investment in services, transport, infrastructure • Increasing centralisation • Supermarket developments on the edge of towns can have a negative impact

Fig. 2.55. Strengths, weaknesses, opportunities and threats to contemporary market towns, drawn from literature review.

buildings preserves their character, but limits new development on these sensitive contexts. This can lead to atrophy and decline of town centres as development is simpler and cost effective in peripheral locations where planning policy places few limitations on design, scale or plot size. Urban extensions in the form of single use estates of housing, industry and employment are often poorly connected to historic cores. These developments increase reliance on vehicles and have a negative impact on patterns of movement, proximity to facilities and urban form. As the Department for Communities and Local Government identify, designing new developments in a manner that preserves the character of market towns and generates support from the local community is seen as essential to successful future community planning, and something that is lacking.[117]

This chapter has explored the physical character of market towns and the impact of contemporary threats to their sense of place. The following chapter will explore the foregrounding of placemaking in planning policy and evaluate approaches to placemaking in the market town context.

117 Department for Communities and Local Government, *Localism Bill: Neighborhood Plans and Community Right to Build. Impact Assessment* (London: Department for Communities and Local Government, 2011) p.16.

3.0 PLACEMAKING IN UK MARKET TOWNS

3.1 Introduction

In this chapter different approaches to place and placemaking for design in the market town are identified from literature. This does not aim to be exhaustive, but to illustrate a range of possibilities to study the built environment and to represent it accordingly. The outcomes of these methods will be described and the success of these techniques in producing locally distinctive places evaluated.

Placemaking is embedded within planning policy and is therefore an integral aspect of the design process in market towns. This chapter will describe the influence of these approaches and their application to the urban environment. As the previous chapter identified, recent development and planning policy has failed to engage with the sense of place that makes market towns unique. The proliferation of edge development, preservation and conservation of historic cores and the primacy of the car have had a negative effect on the character of market towns. A greater consideration of place and placemaking is one tool to counteract this. Place making is defined by CABE and DETR as:

> *"the art of making places for people. It includes the way places work and matters such as community safety, as well as how they look. It concerns the connections between people and places, movement and urban form, nature and the built fabric."*[1]

The National Planning Policy Framework (NPPF)[2] suggests a move toward greater consideration of placemaking and distinctiveness in new development. The Framework aims to improve the quality of the landscape and built environment through a response to place, encouraging designers to *"take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting green belts around them, recognising the intrinsic character and beauty of the countryside."*[3] The NPPF further promotes the enhancement or reinforcement of local distinctiveness while warning that planning policies should to be open to different approaches to development, neither fettering innovation or imposing forms or architectural styles; it stresses the importance of "*the connections between people and places and the integration of new development into the natural, built and historic environment."*[4]

1 CABE, By Design. *Urban Design in the Planning System: Toward Better Practice* (London: CABE & DETR, 2000) p.8.
2 Department for Communities and Local Government, *National Planning Policy* Framework, (London: DCLG, 2012).
3 Department for Communities and Local Government, ibid.p.5.
4 Department for Communities and Local Government, ibid. p.15.

However, experience in market towns suggests there are shortcomings in current approaches in producing locally distinctive development or a sense of place. The chapter concludes with a brief study of the practice of placemaking in market towns.

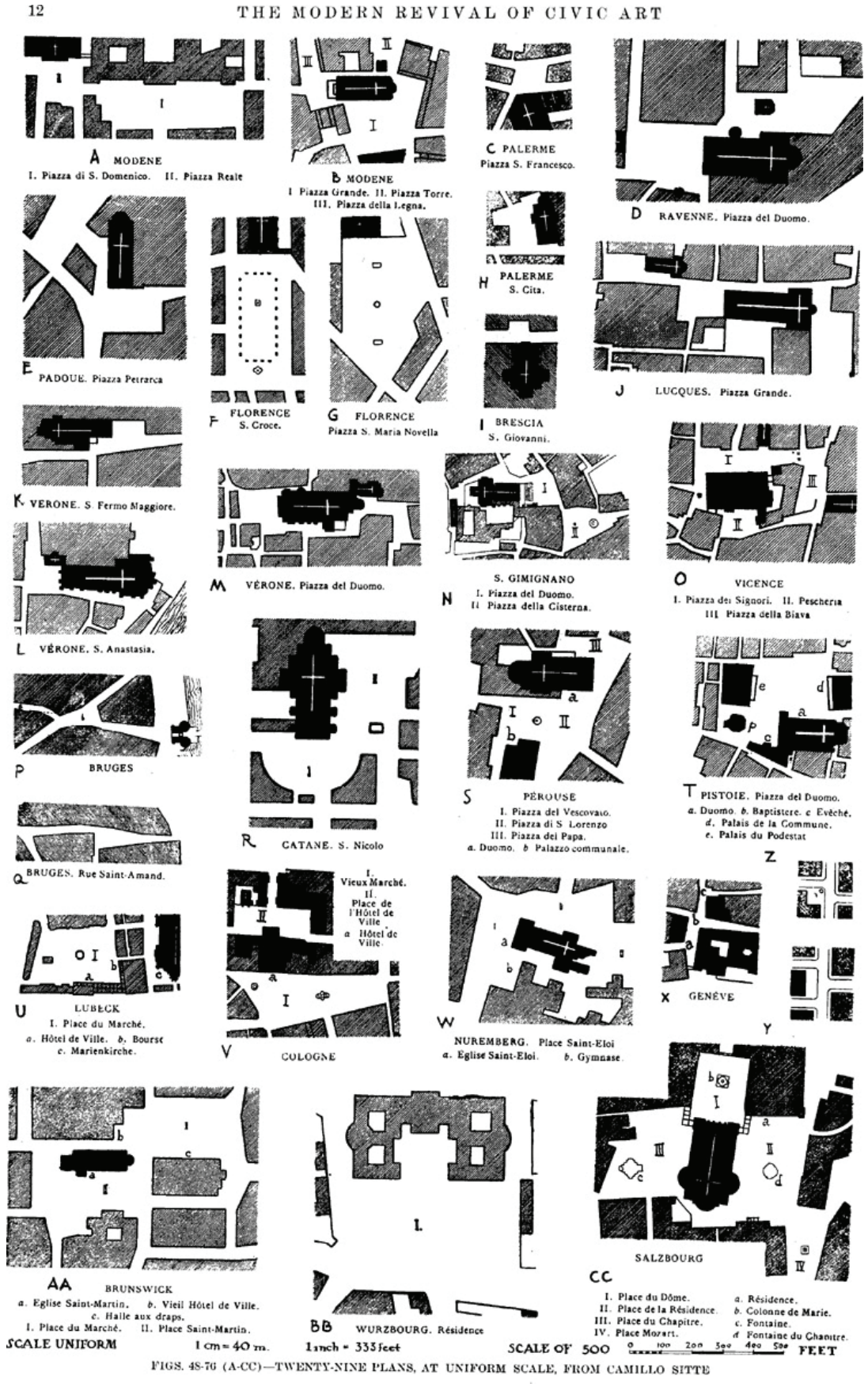


Fig 3.2. Camillo Sitte's analysis of squares in the historic city

3.2 Visual analysis of place

Camillo Sitte's '*City Planning According to Artistic Principles*' established the historic city as an aesthetic model from which inspiration can be drawn for modern design. His assertion that a psychological basis for aesthetics could inform visual artistic principles (scale, form, materials, views and elevations for example) was highly influential (fig. 3.2). He considered the city not as a fixed object but as a historical continuum that could be projected into the future while valuing continuity and heritage.[5] His focus was pictorial and focused on public squares and plazas, exploring the often-irregular relationships between buildings, monuments and the enclosure of squares to extract lessons for the contemporary designer.

Sitte's approach was influential across Europe and in the UK had particular effect on Raymond Unwin. While Sitte's concern was primarily for the continuity of historic European cities, Unwin applied these lessons to villages, suburbs and small towns in the UK. Informed by the development of Letchworth Garden City, Unwin's '*Town Planning in Practice*' (1909) supported Sitte's notion of learning from the past to inform the present. Unwin held in high regard the forms of the medieval city but warned against their artificial replication, suggesting the speed of growth of urban areas precluded replication of the slow growth of the medieval city. Instead, he proposed rational planning combined with irregularity, for example in the design of intimate lanes behind a formal high street. Unwin was a supporter of local and vernacular styles with a unique personality that responded to their place. He further argued for a higher density than was being delivered in the garden suburbs and strong boundaries to contain urban growth.[6]

After the Second World War, the shortcomings of the modern movement became evident and alternative approaches to the city were sought. In the UK, one of the most potent critiques came from The Architectural Review (AR). Nikolaus Pevsner, Ivor De Wolfe (a pseudonym of Hubert de Cronin Hastings), Ian Nairn and Gordon Cullen, advocated new ways of understanding and designing places based on informal, visual compositional principles. Opposed to both the *tabula rasa* approach of modernist theory and to the arts and crafts ideals of the garden city, the AR campaigned for a regional discourse of Englishness and 'variousness' of place to create an authentic and 'natural' urban landscape,[7] a combination of modernism and the English picturesque.[8] Townscape aimed to combine visual principles with technological and functional expression, promoting:

5 Francesco Bandarin & Ron Van Oers, *The historic urban landscape: Managing heritage in an urban century* (Oxford: Wiley-Blackwell, 2012) p.11.
6 Raymond Unwin, quoted in Martin Aitcheson & Nikolaus Pevsner, *Visual Planning and the picturesque* (Los Angeles: Getty Publications, 2010) p.173.
7 Andrew Law, 'English townscape as cultural and symbolic capital' in *Architectures: Modernism and after*, ed. by Andrew Ballantyne (Oxford: Blackwell Publishing Ltd, 2008) pp.202-226 (p.222).
8 John Macarthur & Matthew Aitchison, 'Oxford versus the Bath road: Empiricism and romanticism in The Architectural Review's picturesque revival' in *Journal of Architecture*, vol.17 no.1 pp.51-69 (p.52)

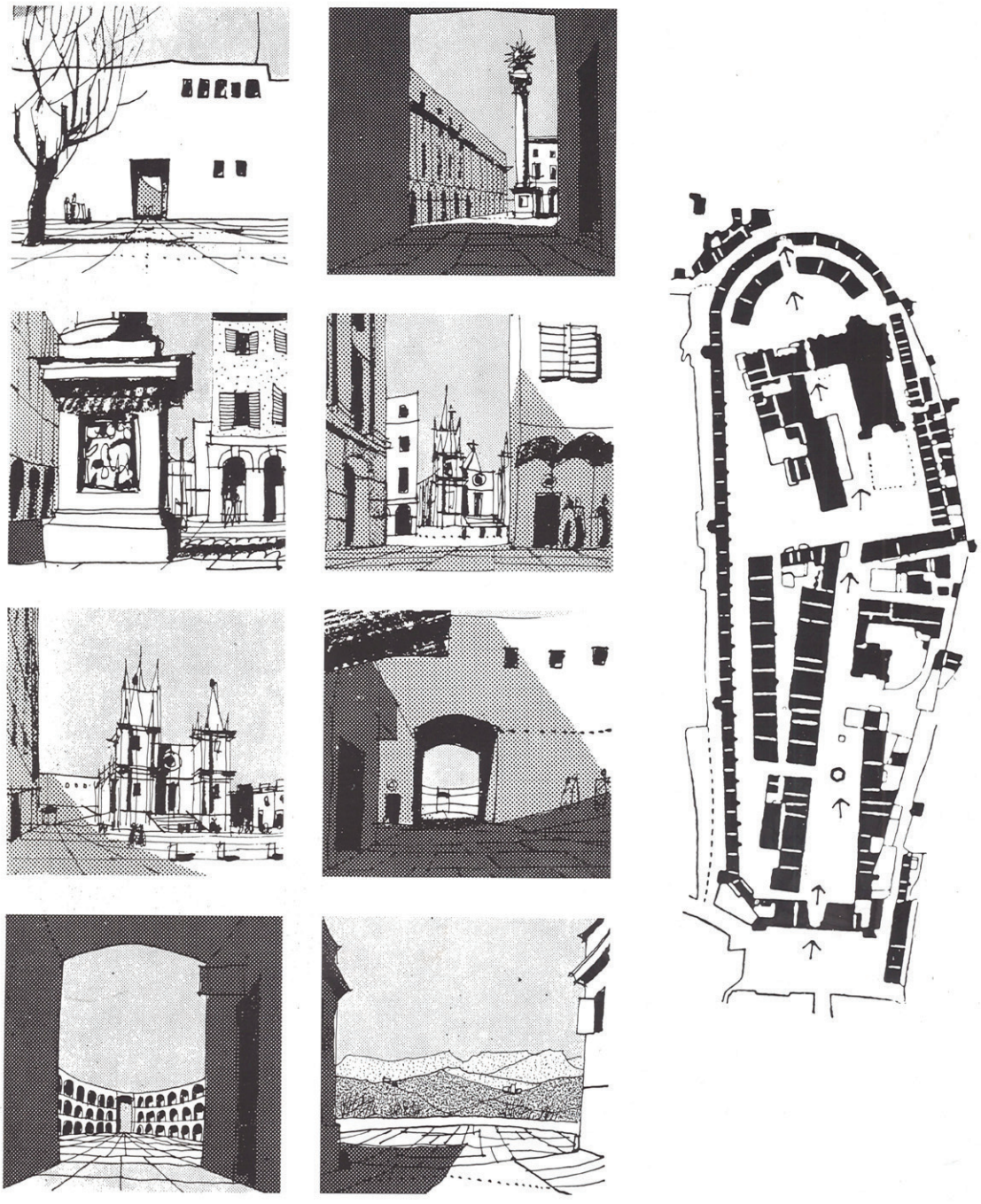


Fig 3.3. Gordon Cullen's serial vision analysis of a hypothetical city, drawn for the 1961 edition of 'Townscape'.

> *"new richness and differentiation of character, the pursuit of differences rather than sameness, the re-emergence of monumentality, the cultivation of idiosyncrasy, and the development of those regional dissimilarities that people have always taken a pride in […] architecture must find a way of humanising itself as regards expression without in any way abandoning the principles on which the Revolution was founded."*[9]

Two strands emerged: visual planning and the picturesque, described by Pevsner; and townscape, described by Cullen and de Wolfe. Pevsner's visual planning approach combined two lessons that were of value for town planning; firstly, that the picturesque could be used to inform the aesthetic potential of functional planning; and secondly, that the traditions of the European city (streets and squares as described by Sitte, for example) could be described as picturesque. Taking existing settlements as his starting point, Pevsner attributed the attractiveness of English towns to long periods of iterative change and tactical decision-making; planning by opportunity and compromise rather than imposed ideals. Good cites were irregular and informal- a collage of incomplete urban fragments:

> *"what is most English in English town planning, and in fact amounts in my opinion to England's essential contribution to town planning development […] is not the circus or the crescent as such, but the picturesque way in which such set pieces are placed as accents in an informal composition."*[10]

Similarly, Cullen's 'Concise Townscape' (1961) prioritised visual perception of space. Discarding functional planning attributes such as density, demographics, land use, traffic and transport, the approach prioritised the perception of the inhabitant and a scenographic, visual approach that valued individual memory and experience. This extends *"beyond the mere technical aspects of city making and defines an 'art' that is able to integrate building and environment."*[11]

Cullen identified the positive benefit of juxtaposition, contrast and the visual difference between things as a way of deepening the understanding of a place.[12] He values both continuity and the unexpected in the unfolding of the city, where movement creates changing visual juxtapositions: *"the scenery of towns is often revealed in in a series of jerks or revelations. This we call serial vision."*[13] Serial vision (fig. 3.2) is an important tool whereby the character of a place is revealed through the experience of changing compositions, views and vistas and the

9 Nikolaus Pevsner, quoted in Anthony Vidler, 'Troubles in Theory Part II: Picturesque to Postmodernism', *The Architectural Review*, 231.1379 (2012), 78-83 (p.78).
10 Martin Aitcheson & Nikolaus Pevsner, *Visual Planning and the picturesque* (Los Angeles: Getty Publications, 2010) p.28.
11 Francesco Bandarin & Ron Van Oers, *The historic urban landscape: managing heritage in an urban century* (Oxford: Wiley-Blackwell, 2012) p.31.
12 Marichela Sepe, *Planning and place in the city* (London: Routledge, 2013) p.67.
13 Gordon Cullen, *The concise townscape* (London: Architectural Press, 1971) p.11.

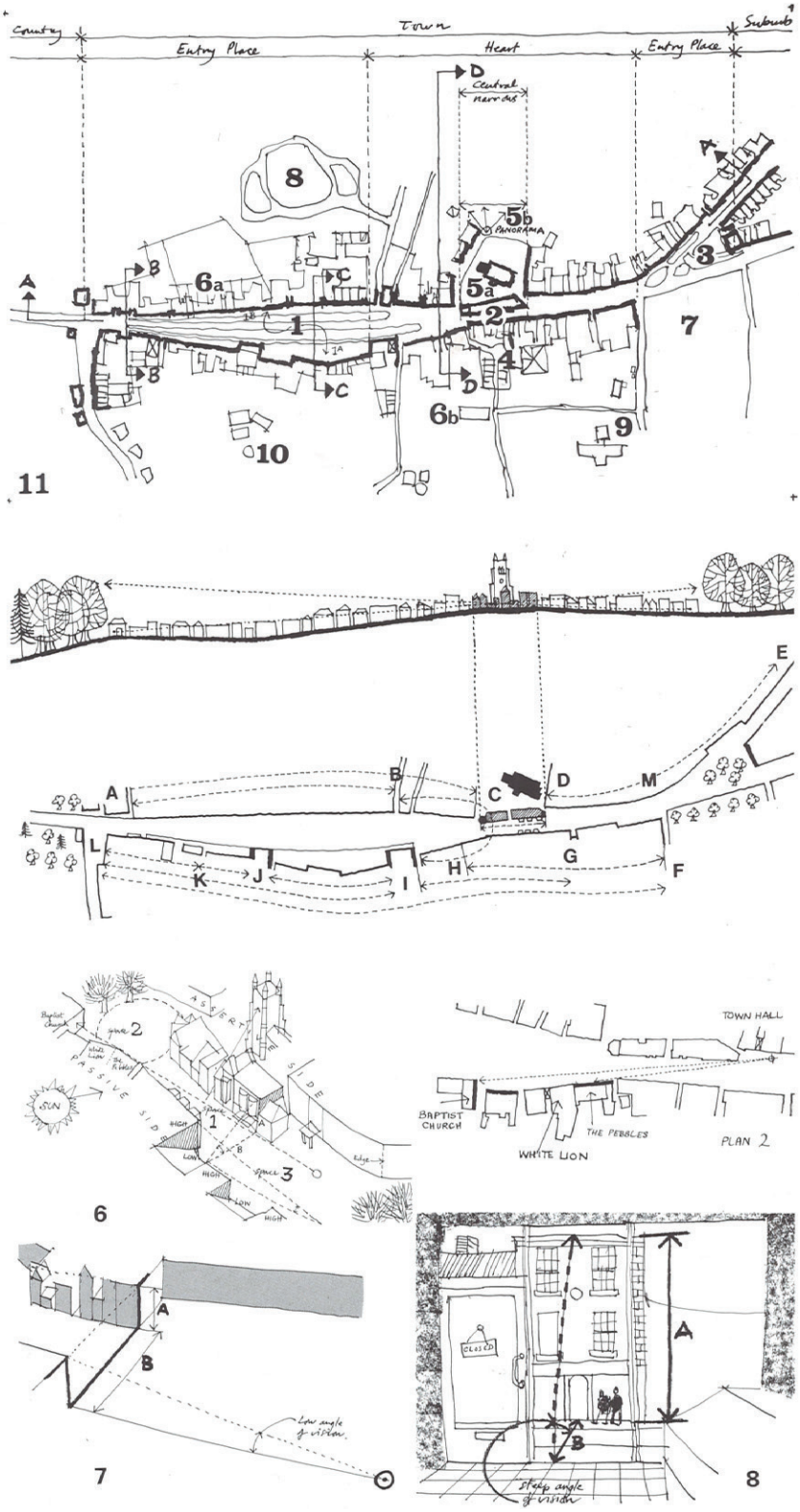


Fig 3.4. Extracts from Gordon Cullen's Tenterden study, published in the Architectural Review in 1967.

measure of a town.

The built fabric contains evidence of different periods of construction, alteration and an irregular mix of styles and materials. This Cullen described as the "*art of environment*", a move from objectivity to an attempt to understand "the structure of the subjective world,"[14] (fig.3.3) consisting of:

> *"colour texture, scale, style, character, personality and uniqueness. Accepting that most towns are of old foundation, their fabric will show evidence of differing periods in its architectural styles and also in various accidents of layout."*[15]

The townscape approach integrated contemporary city planning with conservation and preservation of the historic city through an understanding of visual planning. Despite its subjective nature, townscape's discourse of individuality and idiosyncrasy of places proved highly influential, informing the emerging Civic Trust organisation and pre-empting the concerns of the Civic Amenities Act of 1967 introducing conservation areas to the UK. It informed further explorations such as Patrick Shaffrey's '*The Irish Town: An approach to Survival*' (1975) and Roy Worskett's 'The Character of Towns' (1969), which similarly defined an approach to the integration of new buildings in historic towns to conserve the character of the place. While supporting conservation of historic areas, Worksett also highlights the positive role designers can play in the historic town:

> *"Design disciplines will be both protective and creative, always remaining alive to the possibility of creating new visual qualities and relationships, or emphasising existing ones and creating new feelings of local identity where none existed already."*[16]

He identifies four areas of particular concern in historic contexts: the relationship between town and landscape- views from and to the town and its boundaries; importance of high buildings for focal points, views across the town and skylines; the qualities of local spaces, their character and layout; and the positive effect of new buildings inserted into existing fabric.[17] While acknowledging the approach as visual and subjective, Worskett suggests objectivity can be increased through testing public opinion to the environment as part of the study of a town, in a similar approach to the interviews and cognitive mapping later developed by Kevin Lynch (see 3.6).

14 Gordon Cullen, *The concise townscape* (London: Architectural Press, 1971) p.194.
15 Gordon Cullen, ibid. p.11.
16 Roy Worskett, *The Character of Towns* (London: Architectural Press, 1971) p.74.
17 Roy Worskett, ibid. p.74.

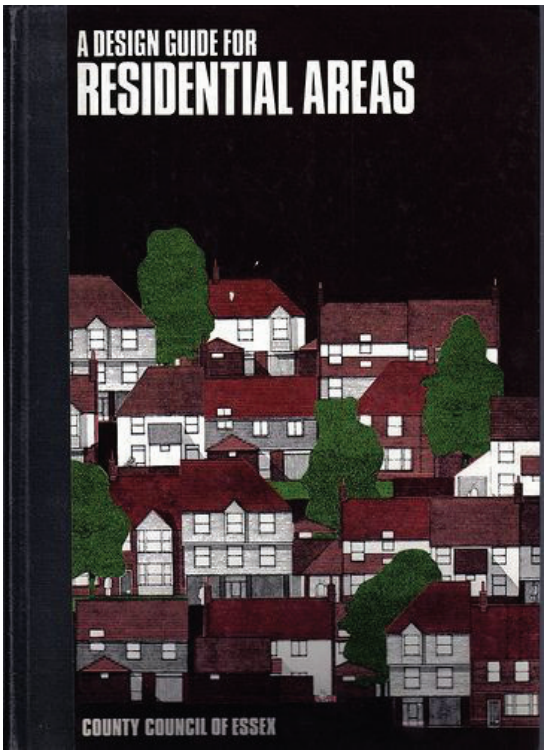


Fig 3.5. The Essex Design Guide

Fig 3.6. Poundbury, Dorchester

-Evaluation

The townscape movement had a marked impact on professional designers in the UK. By the 1980's over 1,400 articles had been published on visual planning and townscape in AR.[18] The campaign revived the principles of the picturesque and emphasised the visual, relational and three dimensional nature of the built environment as seen by the individual.

The townscape approach to towns has been highly influential and continues to have an influence over the built environment. It has been promoted through county-level planning documents such as the 1973 Essex County Council 'Design Guide for Residential Areas' (fig. 3.4). This document founded development control on townscape-centred visual principles drawn from the local vernacular: irregularity, character, picturesque composition, local materials and traditional forms.[19] However, the guide is often criticised for its subjectivity, over-emphasis on the visual and the extent of restrictions it placed on designers.[20] The influence of the visual approach has had futher impact during the 1980s and 1990s on the development of New Urbanism, resulting in the design of new urban places and urban extensions such as Poundbury, outside Dorchester (fig. 3.5). Based on principles of irregular, picturesque composition and with fake chimneys and pastiche materials, is often described as feeling like a stage set.[21]

The illustrations used in the pages of the AR and in 'The Concise Townscape' combine diagrammatic and analytical plans and sections with three dimensional sketches of serial vision or key moments in the space. However, the focus on the visual often overlooked the content and function of the buildings and places created, divorcing form from content. The result is often one of stylistic imitation and application of historic materials and detailing in a neo-vernacular pastiche.

3.3 Morphological analysis of place

Another direction that emerged from modernism was the consideration of a historic layering approach to understanding the morphology of settlements. A contemporary of Lynch, Cullen and Jacobs, the geographer M.R.G Conzen developed an evidence-based, objective method of studying urban form exemplified in a groundbreaking study of Alnwick, Northumberland,

18 Martin Aitcheson & Nikolaus Pevsner, *Visual Planning and the picturesque* (Los Angeles: Getty Publications, 2010) p.14.
19 County Council of Essex, A Design Guide for Residential Areas (Chelmsford: County Council of Essex, 1973) pp.64-81.
20 Matthew Carmona, *Housing Design Quality: Through Policy, Guidance and Review* (London: Taylor & Francis, 2001) p.15.
21 Simon Unwin, *The Ten Most Influential Buildings in History: Architecture's Archetypes* (London: Routledge, 2016) p.219.

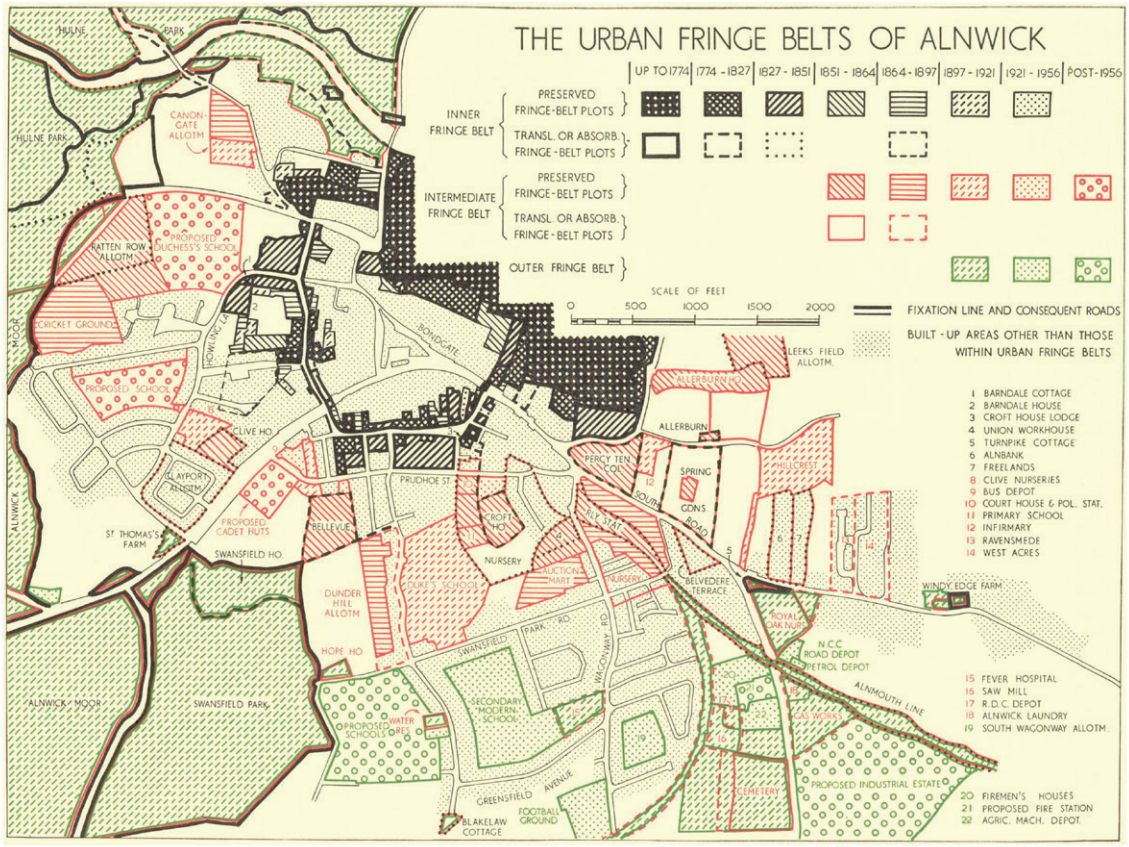


Fig 3.7. MRG Conzen's analysis of the growth of Alnwick and the fringe belts located on the town's periphery.

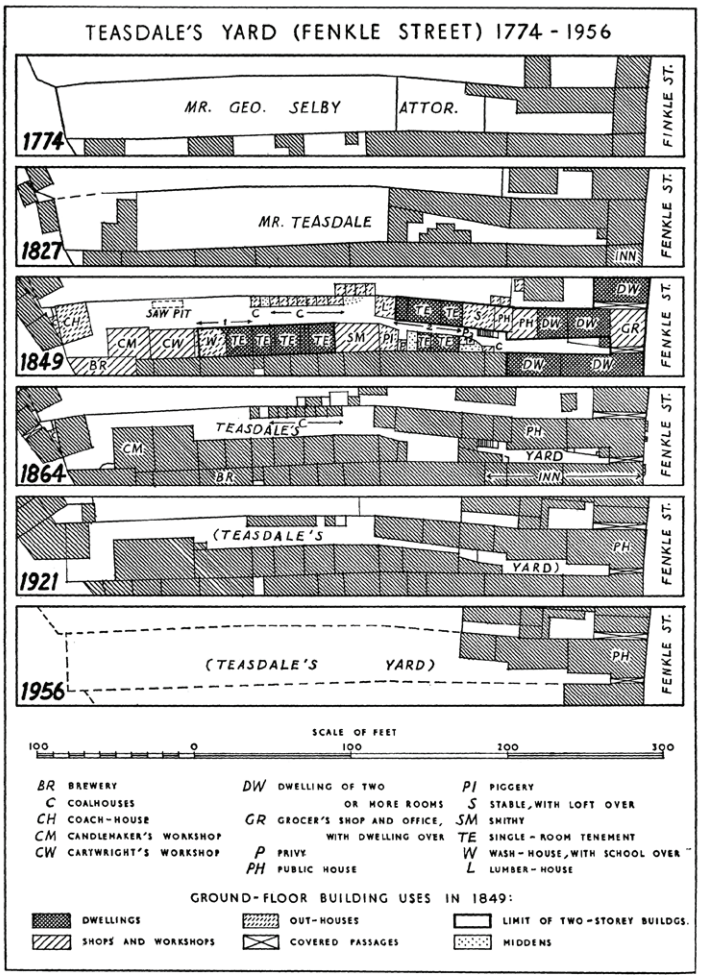


Fig 3.8. MRG Conzen's study of the burgage cycle in Alnwick.

published in 1960.[22] Conzen's analytical approach studied the marks left by every phase of society on the urban landscape and explored the underling forms that reflect the needs of each phase of the history of a place.[23] Largely based on aerial photographs and historic Ordinance Survey maps, the method goes beyond the building form to probe the formative structures or 'plan elements' of streets, plots and blocks. Conzen's approach was to extract the forms and patterns of these different elements as evidence of the historic plan development or morphogenesis of towns (figs. 3.6 & 3.7).

Alongside plan analysis, Conzen examined the process of urban development, in particular how often-concealed structures such as plot boundaries have shaped urban form. Of particular interest for Conzen was the identification of regularities in plot dimension, enabling speculation about how and why a settlement was laid out and how plots were later subdivided. This he described as the burgage cycle, a process of progressive infilling of burgages before a phase of demolition, followed by a period of 'urban fallow' and eventual redevelopment.[24]

Conzen's approach was particularly applicable to small towns and while a number of medieval towns in the UK and Ireland have been subject to his analysis, its wider adoption has been limited. Whitehand describes the time consuming nature of the process and the inability to reduce the necessary procedures to rules of thumb as a difficult bridge for local authorities to overcome.[25] Nonetheless, the recognition of the need to read a settlement as a palimpsest requiring the understanding of complex morphological processes and their interrelation is a valid approach. This goes beyond description of historical features often seen in characterisation studies to explore the complexities of development and redevelopment over time. Urban form is not fixed but continually evolving, as Whitehand describes:

> *"A problem almost everywhere is poorly-developed awareness of cities as mosaics of interrelated forms. Awareness of the existence of historic features is not enough. How they fit together is critical. Historical awareness in planning all too often remains at the level of dating and describing individual features. Historic features tend to be treated as disconnected patches. In most countries management of historical urban landscapes goes no further than conservation of individual buildings, monuments and special areas that are architecturally or historically significant or both. There is little sense of how these relate to one another and are part of a process of change: awareness of historico-*

22 Michael R.G. Conzen, *Alnwick, Northumberland: A study in town-plan analysis* (London: George Philip & Son Ltd, 1960)

23 Conzen, Michael R.G. Conzen and Michael P. Conzen, *Thinking about urban form: Papers on urban morphology, 1932-1998* (Peter Lang, 2004)
24 Jeremy Whitehand, Conzenian urban morphology and urban landscapes, *Proceedings of the 6th International Space Syntax Symposium*. 2007, pii-03.
25 Jeremy Whitehand,ibid. pii-03.

Fig 3.9. Figure ground study of Le Corbusier's Saint-Die in France

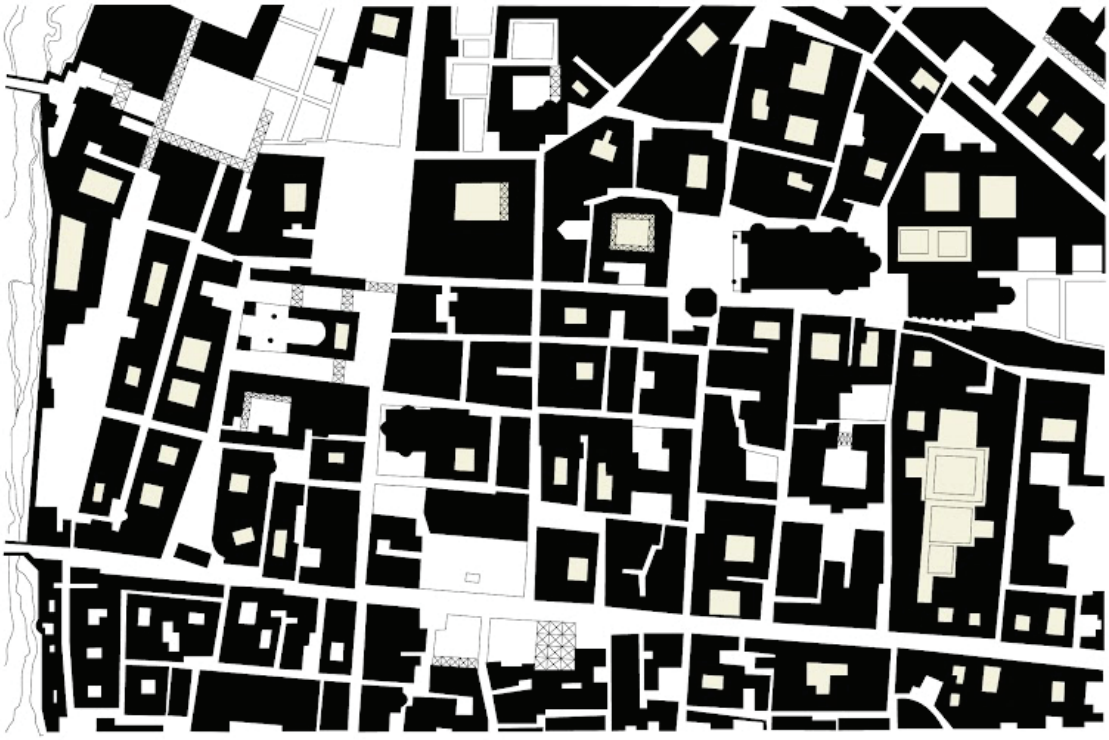


Fig 3.10. Saint-Die was juxtaposed with the plan of Parma in Emilia Romagna

geographical processes is poorly developed."[26]

The complex nature of urban processes and the understanidn gof the city as a mosaic of interrelated forms has parallels to Colin Rowe and Fred Koetter's '*Collage City*' (1978), which explored the opposition between conservation and the *avant garde* in the twentieth century city. Rowe contrasted the utopian ideal of modernism (fig.3.8) with the "*the cult of English villages, Italian hill towns and North Aftrican casbahs*"[27] that he perceived were the product of the townscape movement (fig. 3.9). In the collage approach, he aimed to find a middle ground between existing and new forms, where new buildings relate to "*the known, perhaps mundane and, necessarily, memory-laden context from which they emerge.*"[28] Rowe's concern was for the formal properties of objects and the relationships between them, producing new configurations of older forms able to mediate between existing conditions and change. Collage was used to weave old and new through figure ground studies that could be used to both evaluate and intervene in a context, as Isenstadt describes: *"the methodological symmetry between analysis and design guaranteed conceptual congruence even when old and new were visually dissimilar."*[29]

For Conzen and Rowe, the historical city can be seen as a fragment of an ever-changing urban environment, neither to be frozen or completely removed and substituted. As the city grows by small additions and new 'collages' within the historic fabric, the focus changes from a uniform vision to individual schemes that allow planned or unplanned dynamics to take hold. Each part of the city follows its own compositional and functional rules.

-Evaluation

Conzen's evidence based, objective reading of the evolution of streets, blocks, plots and buildings relies on geographical and archaeological interpretation of aerial imagery and historic plans of a place. It offers a deep understanding of the evolution of urban grain through the burgage cycle, from the level of the town to the individual burgage. The analytical system developed by Conzen is complex and time consuming, limiting its use, and exploration of the three dimensional form of place is limited.

The '*Collage City*' approach uses figure ground studies as an analytical evaluative tool and to present propositional designs. Critical of modernist urban design, Rowe developed a collage approach founded on a belief in the historic city and of urban design as an episodic 'bricolage'

26 Jeremy Whitehand, ibid. pii-04.
27 Colin Rowe & Fred Koetter, *Collage City* (Cambridge, Mass: MIT Press, 1978) p33.
28 Colin Rowe & Fred Koetter, ibid. p49.
29 Sandy Isenstadt, 'Contested Contexts' in *Site matters,* ed. by Carol Burns & Andrea Kahn (New York: Routledge, 2005) pp157-183 (p164).

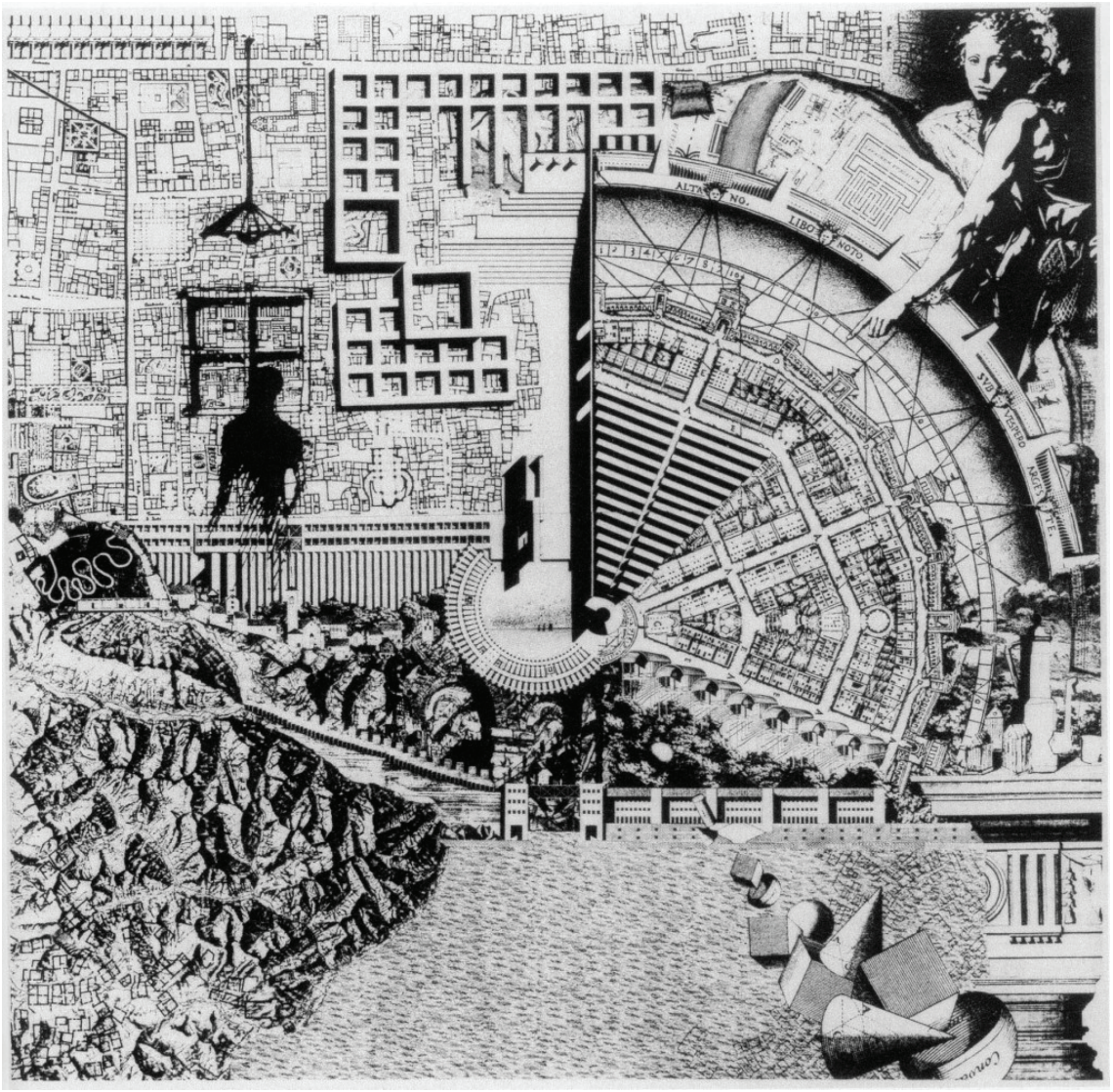


Fig 3.11. Collage for the 'analogus city' by Aldo Rossi

process. Collage City is perhaps more of an approach to urban fabric that a tool; however, it does emphasise the importance of the figure ground study and the plan as a means of analysis.

3.4 Typological analysis of place

During the 1960s and 1970s, typological analysis became a powerful tool for understanding the layering process of the city. The Italian architects Saverio Muratori and Ernesto Rogers emphasised historical context, suggesting that "*to understand history is essential for the formation of the architect, since he must be able to insert his work into the preesistenze ambientale and to take it, dialectically, into account.*"[30]

Perhaps the most influential application of typological study was Aldo Rossi's '*The Architecture of the City*' (1966). Rossi saw the city as composed of unique but interconnected elements, a historical accumulation of the actions of people and place (fig. 3.10). Through understanding the city, a critical tension could be achieved where the new is a critique of existing conditions.

Rossi proposed to study the city through the type, an underlying principle that can be read in all buildings of a particular kind. The type is defined as a structure or principle that can be no further reduced, *"the very idea of architecture, that which is closest to its essence."*[31] Rather than referring to historical styles, the type could serve as an underlying idea and could avoid stylistic imitation. In every type, a rule or structuring principle is clearly visible and articulates a building in a way that responds to place and time without losing its underlying essence. In this way, a design can achieve integration into its context that would otherwise rely on a stylistic link, rather than through an understanding of place:

> *"The type represents not so much the image of a thing to be copied or perfectly imitated as the idea of an element that must itself serve as a rule for the model… Everything is precise and give in the model, everything is more or less vague in the type."*[32]

Vittorio Gregotti extended the neo-rationalist agenda of typological form to include exploration of place and landscape. In '*Territory*' (1966) he explored the role of the architect in revealing the relationship between settlements and the geographical, natural and historical features of the surrounding landscape or territory:

> *"The environment is composed of the traces of its own history. If geography is,*

30 Ernesto Rogers quoted in Adrian Forty, *Words and buildings* (London: Thames & Hudson, 2004) p.132.
31 Aldo Rossi, *The Architecture of the City* (Cambridge, Mass: MIT Press, 1982) p.40.
32 Quatremere de Quincy, quoted in Aldo Rossi, ibid. p.64.

> *therefore, the way in which the signs of history solidify and are superimposed in a form, the architectural project has the task of drawing attention to the essence of the environmental context through transformation of form."*[33]

Gregotti was concerned with the modification of the territory, where the landscape is seen as a "*loadbearing material for the architectural project*"[34] that has both material and visual features. The purpose of architecture is to call attention to these features through modification, transformation and contrast. He suggests traditional types forms can be combined and modified to suit contemporary conditions and that modern architecture has a role in highlighting the difference between the natural landscape and the architectural project.

-Evaluation

The typological approach was a response to a perceived lack of understanding of the traditions of the European city during the late twentieth century. The approach of studying the city over time through the type and through urban artefacts offers a way to explore the traces of the past evident in the contemporary city. Through his teaching, Rossi was influential in shaping the approach of a generation of European architects emerging in the 1970's, including the Ticino School and Luigi Snozzi whose work will be discussed in chapter 4.

3.5 Phenomenological place: Genius loci

In an approach of visual and aesthetic appreciation of the city that has similarities to Sitte, Patrick Geddes suggested the city was an organism of interrelations between social and physical components in a web of evolution and change. This organic concept emerged from an appreciation of the medieval European city, interpreted as a constantly evolving context where each generation contributed to the physical environment by adding, changing and removing functions and physical components. Geddes identified the importance of the 'spirit of place' for city planning, incorporating personal and collective memory and collective association to spaces, looking at the city from morphological, geographical and social viewpoints. He proposed the city as part of a wider network that extended beyond the physical streets and public spaces to include the relationship with the surrounding landscape and the theatre of human history.

33 Vittorio Gregotti, 'Territory and Architecture', in *Theorising a new agenda for architecture: an anthology of architectural theory 1965-1995* ed. by Kate Nesbitt (New York: Princeton Architectural Press, 1996) p310.
34 Korydon Smith, *Introducing architectural theory: Debating a discipline* (New York: Routledge, 2012) p.342.

This idea was re-visited during the 1970's by Christian Norburg-Schulz. He draws on Heidegger's phenomenological philosophy, urging "*a return to things.*"[35] Architecture is seen primarily as the creation of places, "*the concrete manifestation of man's dwelling*"[36] through which he gains an understanding of himself. Due to their complexity, places cannot be fully described objectively or through abstractions of concrete phenomena; through such processes what is lost is "*the everyday life-world, which ought to be the real concern of man in general, and planners and architects in particular.*"[37]

Places are therefore qualitative and complex and mean different things to different people. They can be either man made or natural and consist of space- the three-dimensional arrangement of elements; and character- the general atmosphere of a place. Through the combination of space and character, architecture has the potential to make the environment meaningful and enable the revelation of the genius loci: "a mythical divinity, a private demon that inhabits a particular site, which architecture makes manifest, elaborates, interrogates and heeds."[38] Norberg-Schulz sees place as a totality made up of all things having a material substance, which combined make an environmental character, the essence of place. The architect's role is "to create meaningful places, whereby he helps man dwell."[39] Norberg-Schulz places particular emphasis on the skyline as a silhouette that captures the essence of a place.

Through understanding of the genius loci man is oriented and can identify his surroundings, creating a sense of emotional security through a strong image of the place. Traditionally, places were well demarked, had a unique character, and were distinct from their surroundings: they were an identifiable form in a coherent landscape. However, Norburg-Schulz recognises the loss of this form of living; like Heidegger, he sees the homogenisation of the landscape and the scattering of settlements as having a negative impact of man's ability to understand spaces and to dwell.

-Evaluation

The phenomenological approach emphasises the role of personal experience and memory in the individual experience of place. While not offering analytical tools to explore this, Norburg-Schulz draws on geographical, social and physical aspects of place which together create the

35 Kate Nesbitt, *Theorising a new agenda for architecture: an anthology of architectural theory 1965-* (New York: Princeton Architectural Press, 1996) p.413.
36 Christian Norberg Schulz, *Genius Loci: Towards a phenomenology of architecture* (New York: Rizzoli, 1980) p.8.
37 Christian Norberg Schulz, ibid. p.8.
38 Ignasi de Sola-Morales and Sarah Whiting, *Differences: Topographies of contemporary architecture* (Cambridge, Mass: Cambridge Univesity Press, 1997) p.98.
39 Christian Norberg Schulz ibid. p.5.

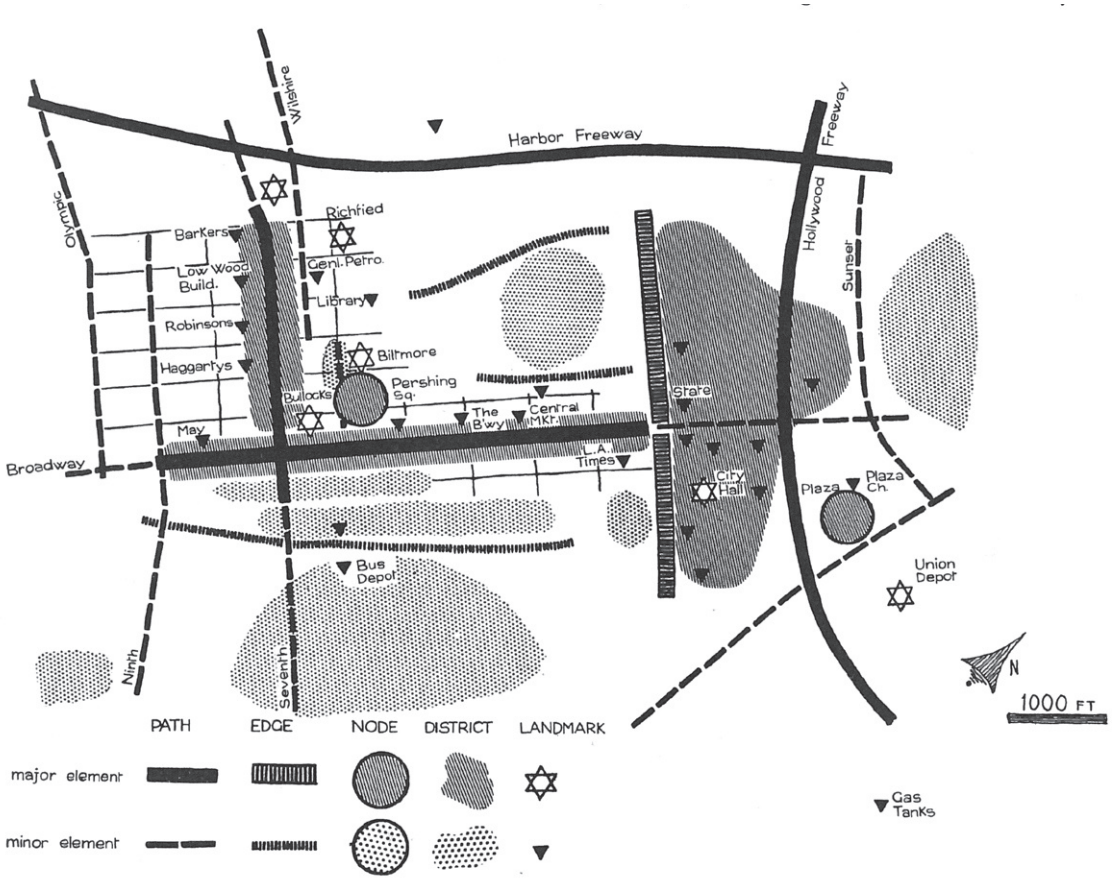


Fig 3.12. The visual form of Los Angeles: Analysis by Kevin Lynch.

genius loci. His analysis ranges from visual impressions to the experience of the lived world, searching for meaning in patterns of settlement: character, place and skyline to offering guidance on aspects of a town that should be explored and recorded. However, the approach does not suggest ways of becoming generative beyond the analytical method.

3.6 People-oriented approaches

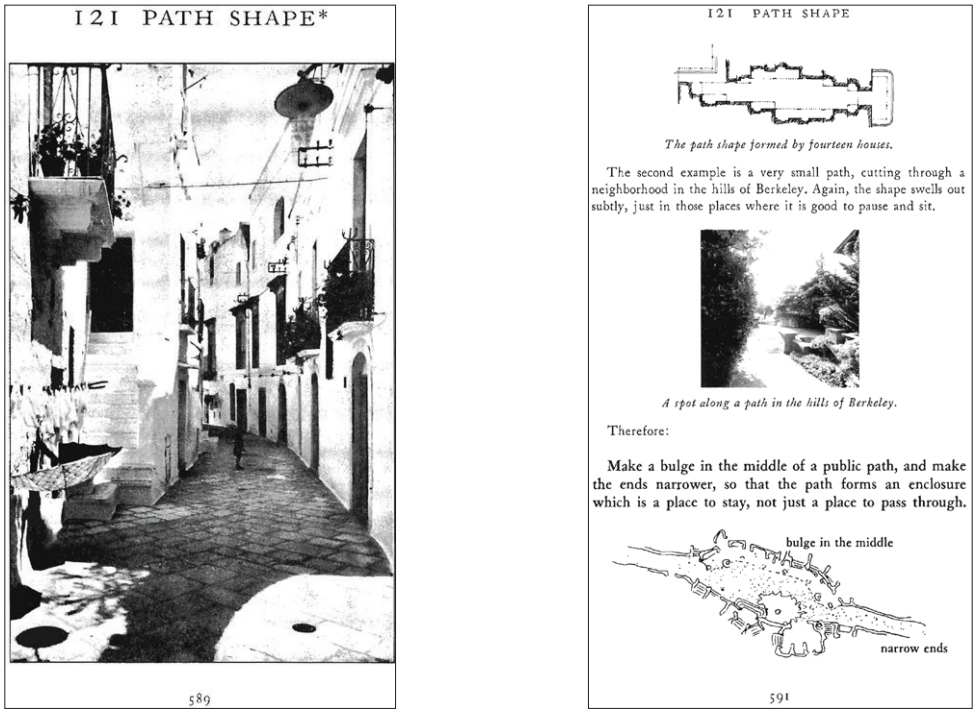
The importance of the relationship between people and places was first described during the early 1960s through emerging studies in the UK and USA. Drawing from a wide range of disciplines from planning to geography to psychology, new approaches were developed exploring perception as a tool to understand space.

Through interviews and mapping exercises in three American cities, Kevin Lynch explored resident's perception of their place in '*The Image of the City*' (1960; fig. 3.11). He defined elements that facilitate man's orientation in space and contribute to 'imagability' of a place: *"That shape, colour or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment."*[40] The theoretical approach is founded on the legibility of the urban scene, *"the ease with which its parts can be recognised and can be organised into a coherent pattern"*[41]. He identified three characteristics that can be used to analyse environmental images: identity, the extent to which an object is a separate and distinct entity; structure, the relationship between the object and other objects; and meaning, the practical or emotional sentiment the object generates in the viewer.[42] Lynch identified nodes, paths, edges, landmarks and districts as the basis of the visual structure of the urban environment, through which he develops a qualitative analysis of space. Through each attribute, space is described: nodes can be arrival or destination; paths describe places for encounter; districts offer socialisation and intimacy; and margins describe a limit or a connection.[43]

Lynch uses visual mapping to not only communicate information about the city, but to also reveal the quality of the urban form. His is a cognitive mapping process that interprets day-to-day experience to link physical space to the use and perception of its inhabitants:

> *"The form of a settlement is always willed and valued, but its complexity and inertia frequently obscure those connections. One must uncover- by inference, if no better source is available- why people created the forms they did and how they felt about them. One must penetrate into the actual experience of places by their inhabitants, in the*

40 Kevin Lynch, *The image of the city* (Cambridge, Mass: MIT Press, 1960) p.4.
41 Kevin Lynch, ibid.p.2.
42 Kevin Lynch, ibid.p.57.
43 Christian Norberg Schulz, *Architecture: Language, presence, place* (Milan: Skira Editore, 2000) p.



121 PATH SHAPE*

589

121 PATH SHAPE

The path shape formed by fourteen houses.

The second example is a very small path, cutting through a neighborhood in the hills of Berkeley. Again, the shape swells out subtly, just in those places where it is good to pause and sit.

A spot along a path in the hills of Berkeley.

Therefore:

Make a bulge in the middle of a public path, and make the ends narrower, so that the path forms an enclosure which is a place to stay, not just a place to pass through.

bulge in the middle

narrow ends

591

Fig 3.13. Alexander's pattern language combines photography and sketches with written description.

Fig 3.14. From Jan Gehl's diary – standing, sitting, waiting, and talking registrations on Strøget in Copenhagen, Winter and Summer of 1968.

course of their daily lives."[44]

Christopher Alexander's '*A Pattern Language*' (1977) similarly aimed to explore the elements that constitute the built environment and the relationships of people to the spaces they inhabit. Through a catalogue of 253 patterns for spaces, Alexander aimed to raise awareness of and provide a practical language for how people unconsciously relate to spaces in all their complexity (fig. 3.12). It aimed to describe "*the core of the solution to the problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice.*"[45] Alexander considered that modernism had failed to consider the psychological needs of inhabitants of the built environment; by searching for insights from traditional and pre-modern environments he aimed to narrow the gap between designers and users of space. The patterns Alexander identified aimed to evoke an unconscious understanding of a space and its organisation,"not by being proven empirically correct, but by showing us a direct connection between the pattern and our experience of the built environment."[46] His analysis has some parallels to Rossi's search for underlying types, identifying underlying patterns that can be manipulated, combined and connected in different combinations. Perhaps the most successful aspect of '*A Pattern Language'* is its visual and verbal description of these prototypical patterns that can be applied to transform functional spaces into social spaces.

While Lynch and Alexander were concerned with the patterns and legibility of the city, Jan Gehl explored the social aspect of the city from the person's point of view. He critiqued the reduction of the pedestrian's experience of the contemporary city to a form of transport, losing its social and cultural function.[47] Gehl emphasised that the life between buildings is often neglected by architects and requires careful consideration.[48] Based on observations of both public spaces and the people within these spaces (fig. 3.13), the problems and potential of public spaces can be outlined and opportunities for improvement identified. For Gehl, high quality public spaces are created by opportunities for optional and social activities, not just necessary activities. Approaches revolve around counting and mapping pedestrian, cycle and vehicule movements through space. From an initial case study in Copenhagen, the method has been applied to cities across the globe.

44 Kevin Lynch, quoted in Terry Farrell, *The City as a Tangled bank: Urban Design Versus Urban Evolution* (Chichester: John Wiley & Sons, 2014) p85.
45 Christopher Alexander, *A pattern language: Towns, buildings, construction* (New York: Oxford University Press, 1977) p.x
46 Kim Dovey, quoted in Ritu Bhatt, 'Christopher Alexander's pattern language: An alternative exploration of space-making practices' in *The Journal of Architecture*, 15. 6 (2010) pp.711-729 (p.714).
47 Marichela Sepe, *Planning and place in the city* (London: Routledge, 2013) p78.
48 Jan Gehl & Svarre Birgitte, *How to study public life* (Washington: Island Press, 2013) p.2.

-Evaluation

Lynch, Alexander and Gehl's methods are founded on an evidence-based understanding of the urban environment and use diagrams and drawings as ways of interpreting city form. All are concerned with the life of the city and how this can be analysed and enhanced.

Lynch's imagability explores the city in plan and develops a language of marks and notations that interpret the mental maps people hold of a place. These capture aspects of image and built environment that are recognisable, as well as recording movement, the structure of the environment and the mental recollection of inhabitants. This analysis bridges from an abstract and objective analysis of the city into existential and experiential lived place. While strongly related to the visual, Lynch looks beyond the surfaces explored by townscape and into the underlying structures that make up the image of a place. Similarly, Alexander's approach is based in observation of the built environment. The patterns he identifies are described and illustrated with combinations of text, photographs and sketches. Each pattern describes a problem and offers a solution, founded on principles drawn from the historic city.

Gehl's analysis is based less in an experiential realm and more in observation and empirical data collection. His approach explores the city from the pedestrian's viewpoint and advocates the positive impact the built environment and public spaces can have on the lives of people. Using direct observation and tools such as counting, mapping and tracking, locations for change can be identified. In this case, the recording of place is integral to the development of design propositions.

Fig 3.15. Glasdir Estate, Ruthin in flood in 2013.

3.7 Placemaking in UK market towns in practice

As the previous section shows, there exists a wide range of literature on placemaking that could be applied in market towns. While the literature demonstrates the long tradition of placemaking over the past century or more, evidence of its success in market towns is more limited. The tools described have proved useful for designers and widely applicable in analysing urban form and place, but they have proved less successful in reinforcing local distinctiveness or a sense of place in market towns.

The lack of successful placemaking can be seen as the result of a number of factors. Despite prioritising place, planning policy and local development plans remain largely abstract. The allocation of land for development is decided at strategic level and not in response to assessment of the built environment or sense of place. This results in increased development in peripheral locations with little sense of connection to town cores or consideration of the full impact of development, for example allocating areas of flood risk for housing development (fig.3.15).

With increasing mass production and distribution, construction is increasingly driven by commercial economic concerns. The growth of supermarkets and out of town shopping centres, based on standardised industrial building systems, are situated in landscapes designed around the need to accommodate and maximise car parking. To maximise the benefit of national supply chains and material sourcing, volume house builders construct the same pattern book of homes across the country, clad to respond to context. As David Lea describes:

> *"the British building industry has developed a "vernacular" costume to hide modern construction; its colours and textures can easily be adjusted to give a regional flavour."*[49]

Similarly, the placelessness of contemporary architecture can partly be seen as a result of increasingly globalised architectural practices. With limited knowledge of the places in which they are building, site information is simplified and codified, reducing the site to little more than a geometric representation of plot boundary and legal limits.[50] Furthermore, the prevalence of object buildings in the late twentieth and early twenty-first centuries has resulted in buildings that are formally distinctive and unique but disconnected from the qualities a site possesses and with little relationship their surroundings.[51]

Where new buildings are designed to respond to their place they can polarise opinion. Many

49 David Lea, 'Fake or Real?', in *Planet* 138 (1999/2000), pp.77-83 (p.80).
50 Enis Aldallal, *Site and Composition* (London: Routledge, 2016) p.7.
51 Enis Aldallal, ibid. p.7.

Fig 3.16. Hebden Bridge: Aerial view of Studio BAAD's Garden Street mixed use development.

Fig 3.17. Hebden Bridge: Street view of Studio BAAD's Garden Street mixed use development.

people may be supportive of contemporary architecture, but there are equally those who prefer a historic, conservation or preservation approach to new buildings. This has been demonstrated by events at Hebden Bridge in Yorkshire in 2008: Garden Street, a £10 million mixed-use development integrated into the core of the town, provoked a campaign of intimidation against the architects (fig. 3.16 & 3.17). Described by CABE as *"refreshing"* and *"responding well to the complex historical context of the site,"*[52] the six buildings designed by Studio BAAD referenced local materials and building typologies. Despite the planning officer's recommendations for approval, the design team faced death threats from an aggressive action group campaigning against the application.[53] This demonstrates the complexities of working in sensitive and historic settings that elicit strong feelings from their inhabitants, and demonstrates a need for a careful approach.

To address the perceived lack of successful placemaking in the UK market town context, a survey of published best practice was carried out. Through this identification of exemplary of placemaking there emerged evidence of alternative methods, in particular in central Europe. Of those identified, (see fig.3.18) the work of Luigi Snozzi in Monte Carasso, a small town in the Ticino canton of Switzerland, was identified as rooted in a long standing engagement with place. Slowly and persistently, with the political support of the townspeople, Snozzi has developed the town from a rural community under threat from expanding urban areas into a place with its own identity and sense of place. Furthermore, it offered the opportunity to gain first hand experience of the approach in practice through an annual design seminar, held in the town every summer. Through this experience and literature based research, a thorough understanding of the approach can be gained and its applicability to the UK context assessed.

52 Richard Vaughan, 'Studio BAAD's Hebden Bridge scheme triggers death threats' *Architect's Journal* 228.8 (2008) p.4.
53 Richard Vaughan, ibid. p.4.

Architect/project	Image	Type of settlement & population	Urban approach	Response to place	Aesthetics	Material choice	Potential as pilot study
Giancarlo De Carlo Urbino, Italy		Town 15,566 Fits within definition of market town	New buildings within historic town, reuse of existing building shells; new university buildings outside the town.	Building form and materials, mapping	Externally referential to place and preserves characteristics of surroundings, internally different and more contemporary; references both local and universal	Brick and concrete	Can be visited and described in monographs, but no potential to 'try it out'
Gion Caminada Vrin, Switzerland		Village 255	Centre, periphery. Small buildings located according to need	Material, form and construction	Preserves the characteristics of context; references both local and universal	Timber- innovation based on traditional Strickbau timber construction systems	Can be visited, described in monographs and architect/local people could be interviewed. Village scale so not large enough to meet criteria for market towns.
Luigi Snozzi Monte Carasso, Switzerland		Town 2,796 Fits within definition of market town	Centre, periphery, consolidation, connections. Combination of new buildings located according to need and impact	Location of projects, public spaces, routes, edges and definition of centre	Contrast to existing buildings	Concrete, render and glass	Can be visited, described in monographs and architect could be interviewed; opportunity to take part in summer school
Group 92 Temple Bar, Dublin		Neighbourhood 3,000 Fits within definition of market town but located in a city	Combination of new buildings located according to need and impact	Projects create new links and routes through the area; some material and formal references	Varies according to project as numerous architects are involved	Varies according to project as numerous architects are involved	Can be visited, described in monographs and architect/local people could be interviewed
Bauman Lyons Dewsbury		Town 62,945 Although a town, is larger than market town definition	Distinctiveness, high street regeneration, connections	Mapping and statistical analysis; social, economic and physical response to as found conditions through stepping stones, building in scale from small interventions to large scale projects			Little realised output although process is interesting. Architect could be interviewed

Fig 3.18. Examples of contemporary place making practice from the UK and Europe considered as pilot studies for the thesis.

Leon Krier Poundbury		Neighbourhood 6,000 (when complete) Fits within definition of market town but a new town	Townscape based, visual and picturesque principles applied to a new town	A new urban extension, so references are to regional material choices and composition of buildings	Neo-vernacular; a pastiche of historical styles constructed using contemporary materials and systems. Fake historic elements, e.g.: chimneys.	Brick, render, stone cladding.	A new town so not as relevant as other examples.
Orla Murphy 'Town'		Westport 5,543 Bandon 6,640 New Ross 8,151 Longford 9,601 Fit within definition of market town	Mapping of exisiting physical condition and inhabitation, resulting in 4 principles: connect, overlap, exchange, accomodate	Response to impact of zonal planning strategies and specifics of development in Irish towns. Location of projects, public spaces, routes, edges, infill	Contemporary architectural language, but no realised projects		A vision for rural towns rather than a realised example; literature, online film and interview with the architect possible
Witherford Watson Mann Bankside Urban Forest		Neighbourhood	Urban acupuncture with small scale projects	Mappping of physical and social conditions			Little realised output although process is interesting. Architect could be interviewed
Raffaele Cavadini Iragna, Switzerland		Village 563	Centre, public space, connections	Location of projects, public spaces, routes, edges and definition of centre, material references	Simple forms and abstracted material references	Stone and concrete	Can be visited, described in monographs and architect could be interviewed. Village scale; does not meet criteria for market towns.
Design Research Unit Wales Ruthin, Wales		Town 5,461 Fits within definition of market town	Urban acupuncture, considering centre, connections, edges. Mapping of existing physical condition	Location of projects, public spaces, routes, centre, connections	Mostly public realm projects, not realised		Author led the project so useful for background information or a case study, but little realised result
Russell Light Calver		Village 710	Centre and edge, continuity of fabric	Exploration of characteristic forms at urban and building scale	Strong indigenous character combined with typological rationalism; references both local and universal	Stone, local tile, concrete	Can be visited but not all projects realised, described in ARQ paper and architect could be interviewed

3.8 Conclusion

The approaches to the city described have been variously applied and tested, and the work of Lynch and Cullen provided the groundwork for later urban thinkers such as Robert Venturi, Marc Auge and Rem Koolhaas.[54] The literature reviewed describes the wide criteria that affect the sense of place and that the designer has to consider. Memory, affect, landscape, image, physical attributes, experience, form, relationships and materials all have a role to play in creating distinctive places. People and perception have been shown to be important in the creation of places. Furthermore, the literature agrees that places should not be seen as frozen but part of an evolving continuum. As Bandarin describes:

> *"A city is not just architecture or a monument. It is, most of all, a living place, where the meaning of the built environment has to be understood in relation to the living society, its needs for the preservation of memory as part of its culture and life, its sense of beauty, its uses of places and it changing processes. The values of the city cannot be understood without accurate cultural mapping, without the participation of the people living, using and shaping the space."*[55]

The literature suggests there are multiple different approaches to placemaking, highlighting the complex relationships between the elements that make up the urban environment. Visual, morphological, typological, phenomenological and people-based approaches have been identified. Used on their own, each approach explores a different facet of the urban environment and its affect. However, in order to achieve a complete understanding of the "*total phenomenon of a place,*"[56] these approaches may need to be combined. As Southworth and Ruggeri identify, place:

> *"should be thought of as a gradient that includes several dimensions and should be as complex as the processes at play in every neighbourhood. It should account for aesthetic appeal and imageability, but be expanded to include social considerations, the discourses and meanings that are shared by community members."*[57]

While the literature demonstrates the long tradition of placemaking over the past century or more, evidence of its success is limited. The tools described have proved useful and widely applicable in analysing urban form and place, but they have proved less successful in reinforcing

54 Marichela Sepe, ibid. p.69.
55 Francesco Bandarin & Ron Van Oers, *Reconnecting the city* (Chichester: John Wiley & Sons, 2014) p.15.
56 Christian Norberg-Schulz, *Genius Loci: Towards a phenomenology of architecture* (New York: Rizzoli, 1980).
57 Southworth and Ruggeri, quoted in Marichela Sepe & Michael Pitt, 'The Characters of Place in Urban Design' in *Urban Design International* 19.3 (2014) pp.215-227 (p.225).

local distinctiveness or a sense of place in market towns. However, through exploration of placemaking there emerged evidence of alternative approaches, in particular found in central Europe.

From a range of opportunities explored, the work of Luigi Snozzi in Monte Carasso has been identified as a suitable pilot study for the thesis. The long-standing involvement of the architect in the town has led to a substantial number of projects being realised that have transformed the town from a threatened suburban dormitory to a place with its own distinctive character. Snozzi's work is closely aligned with a number of the themes discussed in this chapter and is underpinned by a belief in the value of the traditions of the European city and in an approach that explores the genius loci and reveals the structure of place through architectural moves. The next chapter will report on first hand experience of Snozzi's approach though attendance at the Monte Carasso Design Seminar, an annual design event in the town.

Fig 4.1. The Mayor's house, Monte Carasso.

4.0 PILOT STUDY : MONTE CARASSO

4.1 Introduction

The previous chapter identified the importance of placemaking for policy and a range of theories of placemaking that could be applied in market towns. The literature review identified five major strands of placemaking; in order to respond to the complexities of the built environment and the changing needs of market towns, the value of a careful consideration of place combining these multiple facets was identified.

Following this study, examples of relevant approaches that applied the principles of placemaking in market towns were sought. A search for practitioners working today found that more exemplary case studies can be found in central Europe than in the UK. Of those identified, the work of Luigi Snozzi in Monte Carasso, Switzerland, was seen as an approach rooted in place and placemaking (fig. 4.1). Luigi Snozzi is an architect from the Swiss Ticino canton who rose to international recognition during the 1980s as part of the Ticino school or Tendenza.[1] The group received critical acclaim[2] for their a strong-armed approach to architecture, landscape and urbanism that does not create buildings in isolation but engages with and shapes the wider context.

The focus of this chapter will be on the approach developed by Snozzi in Monte Carasso since 1978. Working one site at a time, every project is considered with its urban potential in mind regardless of scale. Each project celebrates the particularity of its individual site to root it in its context, but a wider impact is sought where projects extend their influence to the urban realm. In small towns where major development opportunities are rare and funding uncertain and often limited, this approach offers a critique of current policy and suggests an alternative approach to small town placemaking.

Furthermore, there was an opportunity to gain first hand experience of the approach in practice through attendance at the Monte Carasso Summer School in 2006. Snozzi's approach, described at the seminar through lectures and interrogated through a design project, is critiqued and its applicability to the UK context evaluated.

1 A term coined by Martin Steinmann, organiser of the exhibition '*Tendensa: New Architecture in the Ticino*.' Other well known members included Mario Botta and Aurelio Galfetti.
2 Monte Carasso has been exhibited at the 9H Gallery in London (1986) Architekturgalerie München (2013) and at the Venice Biennale (2012). The projects have been published in The Architectural Review, La Visiteur and the Architectural Record.

- Aims and objectives

It was the aim of attending the Monte Carasso Summer School to gain an insight into the approach and methods of Snozzi, in particular his long-standing involvement in the town of Monte Carasso, and assess its transferability to the UK context. The purpose was to understand how the involvement of the architect, working with the community and town mayor, has influenced the development of a sense of place in the town.

Attendance at the design seminar had the following objectives:

- To understand the cultural context of Monte Carasso
- To understand how the urban form of the town had been shaped by the involvement of Snozzi
- To gain an insight into Snozzi's working methods through first hand experience
- To explore the design process within Monte Carasso's planning framework
- to learn lessons to inform an approach to placemaking in the UK context

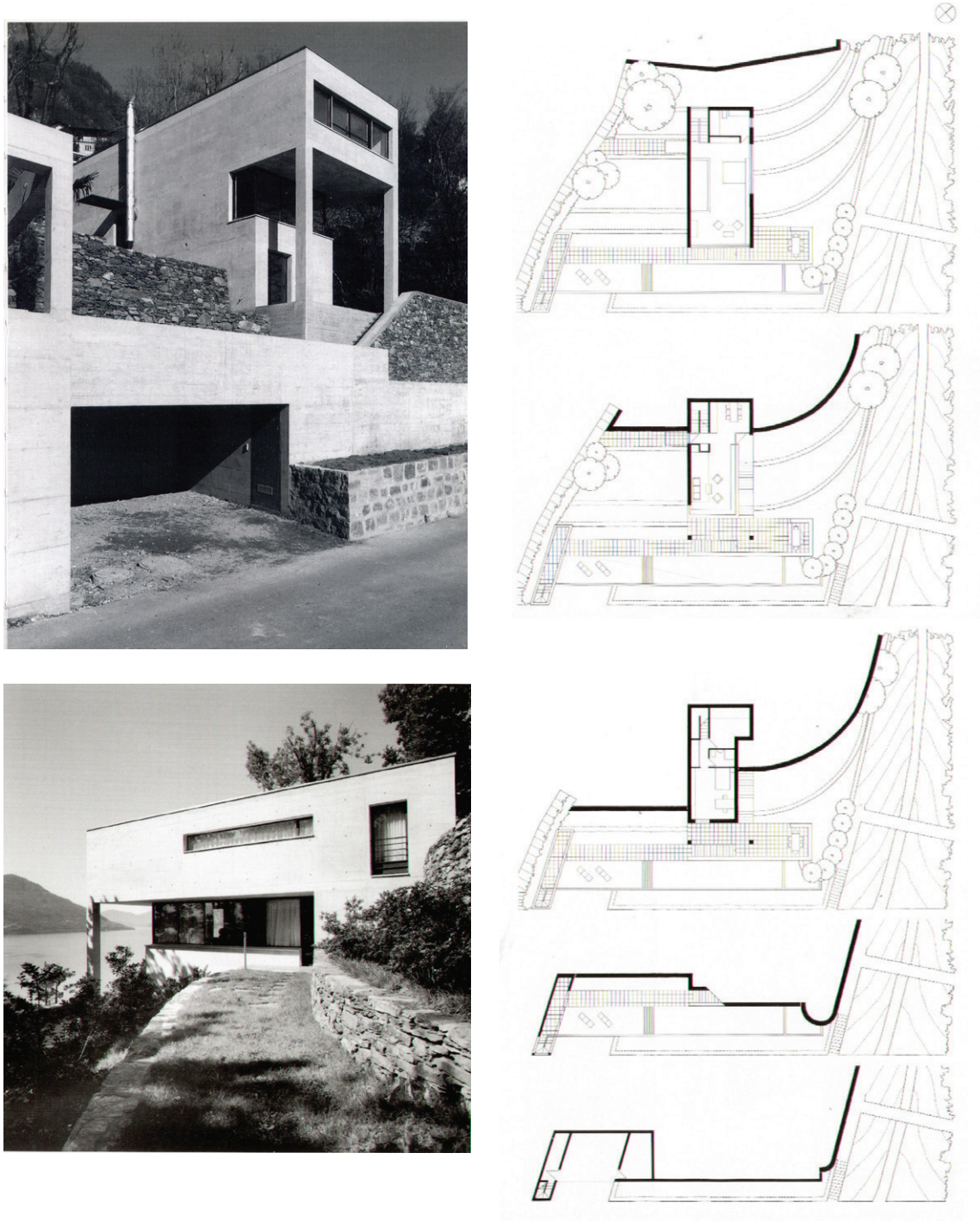


Fig 4.2. Casa Diener, Ronco: A small steep is divided into vineyard terraces, revealing the natural features of the site through contrast with the orthogonal and clearly man-made interventions.

4.2 Luigi Snozzi

> *"The way to achieve a place, the process of design, is the principal moment in the work of Luigi Snozzi. It leads to the concretisation of the respective place. The path is the same whether in the case of a small house on a steep slope, or in that of the city or the suburbs. The careful analysis, the "critical interpretation" of the oreography, the geography, the cosmic values, as signs of a specific social history, the traces of human activity (transformations), the inclusion of the urban structure in its entirety, lead to the architectural conception."*[3]

Luigi Snozzi (b.1932) is an architect from the Ticino who rose to international recognition during the 1970's as part of the Ticino School or Tendenza. The group were emerging onto the international stage concurrently with Tzonis, Lefaivre and Frampton's development of Critical Regionalism. The Tendenza was used as an example of a critical regionalist culture that *"concentrates on creating places, as well as an intimate relationship between architecture and society in a given place."*[4] Frampton cites the Ticino school as an exemplar "*cultural interstice*" building regionally-based world architecture, concerned with building the site, 'place form', the tactile and the site specific.[5] At a time when Post-modernism was spreading across Europe, the Tendenza demonstrated confidence in both the traditions of the European city and modernism, exhibiting a reverence for modernist masters including Le Corbusier, Wright and Kahn. The group were also influenced by Italian rationalism through the teaching of Aldo Rossi in Zurich, which emphasised the importance of historical continuity and the relevance of the classical past Following his dictum of *"architecture is the product of past architectures,"*[6] Rossi proposed architecture required a sense of genius loci and an understanding of the legibility of the city, while avoiding an antiquarian approach to history. Part of this approach was the study of typology, an underlying principle seen in all buildings of a particular kind. His analysis of the city was primarily historical and was based on an interpretation of grammatical structures through which the city could be analysed. Through understanding the city, a critical tension could be achieved where the new is a critique of existing conditions. In this way, a design can achieve integration into its context that would otherwise rely on a stylistic link, rather than through an understanding of place.

Snozzi's projects are grounded in an in depth examination of a place and its wider territory, which are revealed using an architectural form that is based on a minimum number of elements acting together to reveal the nature of the place (fig. 4.2). Snozzi aims to find the limits of the

3 Peter Disch, *Luigi Snozzi: The complete works* (Lugano: ADV, 2003) p.13.
4 Peter Disch, ibid. p.13.
5 Kenneth Frampton, *Modern architecture: A critical history* (London: Thames & Hudson, 2007).
6 Akos Moravanszky, 'Concrete Constructs: The limits of rationalism in Swiss architecture', *Architectural Design*, 77, 5 (2007) 30-35 (p.32).

Fig 4.3. View of Monte Carasso from the mountainside to the north of the town.

Fig 4.4. Figure ground plan of Monte Carasso showing locations of Snozzi's projects

site: *"In my designs, these limits contain the true process which permits the total, dynamic realisation of the place."*[7] The positioning, relationship of new to old and to landscape, and the exploitation of existing structures are all integral to his design method. The materials and geometry are nearly always in sharp contrast to the original fabric or landscape. However, his approach is characterised by both respect and confrontation; respect for the site, the cultural context and landscape, and confrontation with perceived conflicts and problems. As Snozzi says, the new interventions must "*simultaneously respect the existing architectonic and urban structure and establish a new connection with it.*"[8] The outcome of his approach results in a consolidation and clarification of an overall settlement structure, which involves reinforcing edges, consolidating built fabric, tracing public routes and moving streets.

4.3 The 13th International Design Seminar, Monte Carasso

The town of Monte Carasso (population 2,000) is located outside Bellinzona, the cantonal capital of the Ticino in South Switzerland. Bellinzona forms a gateway between Italy and the mountain passes to the north and has historically been of strategic importance. The suburbs of the town cling to the edges of the valley between Bellinzona and the lake wherever a tributary flows from the mountains (fig. 4.3). Monte Carasso lies on the Sementina River; the tributary joins the River Ticino on the valley floor, and along the river are a series of waterside parks running from Bellinzona to the Lake Maggiore. However, the construction of a motorway between Monte Carasso and the parks has severed the town from these amenities. Located between the flat-bottomed Maggiore valley and steep mountains, the twentieth century saw the town threatened by the spreading suburbs of Bellinzona.

Snozzi's involvement in Monte Carasso has evolved over thirty years in a collaborative process with the townspeople. His links with the town started in 1974 with a design for the Verdemonte apartment block on the edge of the town and has continued since, making the town into an experimental test bed for his ideas on urban design and his interpretation of the city (fig. 4.4). Projects are seen as *"interpretations of the site and points of reference for a new configuration of the territory [...] the results should not be measured in the single projects, but rather in the overall relation which brings out new values."*[9] Through his projects, Snozzi critiqued the cantonal development plan which did not account for the different character of each village or town, primarily due to its "*position of defence and its elaborate general regulations which do*

7 Luigi Snozzi, "Notes on a design process" in *Catalogue of the 9H gallery* (London: 9H, 1986) p.5.
8 Luigi Snozzi, quoted in Thomas Deckler, 'The reinvention of the site' in *Relating architecture to landscape* ed. by Jan Birksted, (London: Thames & Hudson, 2004) p.161.
9 Roger Diener, 'The seduction of the architect' in *Luigi Snozzi: the complete works, ed. by Peter Disch* (Lugano: ADV, 2003) p.46.

Fig 4.5. The Monte Carasso Design Seminar: Studio days and reviews were based in the converted convent in the centre of the town.

not take into account the specifics of place."[10] Snozzi proposed a unique plan for each town, a method that was tested in a series of projects and competition entries in the late 1970's, including proposals for Minusio, Tenero, Munsterlinger, Montagnola and Monte Carasso.[11]

Snozzi's projects in Monte Carasso demonstrate the evolution of a unique planning process through a series of small-scale investigative interventions in the village, working alongside the mayor and local people. The maturing of this process reveals the substantial influence incremental projects can have on the urban environment. An integral part of this process, the annual International design seminar in Monte Carasso contributes towards the planning process developed in the town. Taking place at the former Augustinian Convent in Monte Carasso, it attracts young architects from around the world to participate in an intensive studio environment under Snozzi's tutelage. In 2006, the session the author attended, the two week seminar was attended by twenty-four participants from three continents, who tackled one of three design projects based in the town (fig. 4.5). The intensive two week course was structured around daily tutorials with Snozzi and his assistants, three design crits, and daily lectures by Snozzi on his projects. Through the combination of tutoring and lectures, participants gain both an insight into his methods and a deeper understanding of his work.

The following section describes the key themes that emerged from the lectures and workshops run by Snozzi before presenting the design project undertaken at the seminar, a proposal for single family housing development in the north of the town.

10 Luigi Snozzi, quoted in Thomas Deckler, 'The reinvention of the site' in *Relating architecture to landscape* ed. by Jan Birksted, (London: Thames & Hudson, 2004) p.165.
11 See, for example, Peter Disch, ibid.

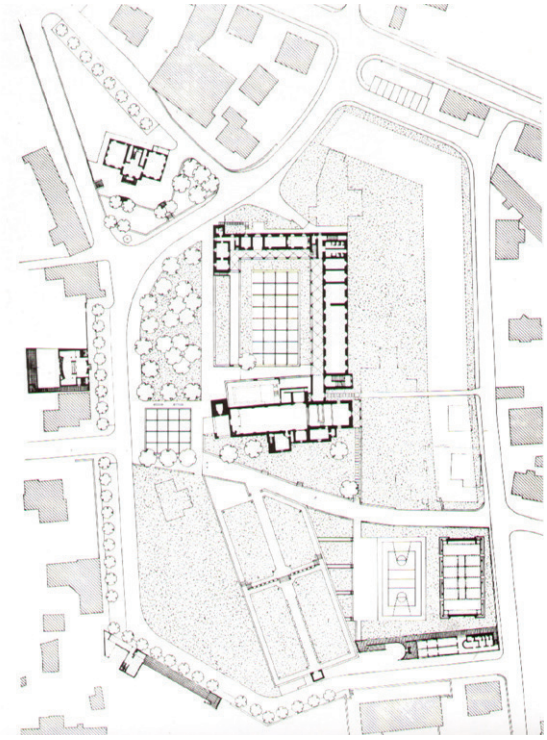


Fig 4.6. The restored convent at the heart of the redesigned civic precinct.

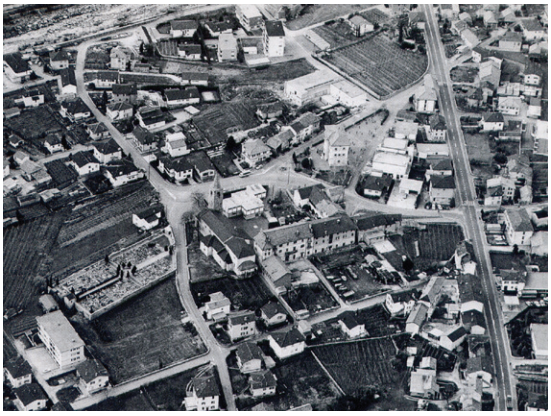


Fig 4.7. The village centre before Snozzi's reconfiguration

Fig 4.8. The restored convent and public piazza.

Fig 4.9. The road around the civic centre was rerouted and tree lined; the mayor's house (Guidotti House) acts as a marker on the turn in the road and is one of the only buildings of more than two storeys.

4.4 Defining a centre

Snozzi's long running involvement with the town and its mayor begun with a competition win for a new elementary school on the edge of the town. Rather than creating a peripheral school as was proposed by the competition brief, Snozzi proposed its relocation to the dilapidated Augustinian convent in the centre of the village (fig. 4.7). This move would bring purpose to the largest building in the town, making it a focal point for the community and revitalising the centre of the village: *"In Monte Carasso the idea of creating a 'monumental centre' around the restructured convent corresponded to a real necessity, because the village was utterly lacking in a real centre."*[12]

The restoration of the convent stripped the building back to its renaissance form (fig. 4.8). A duplex classroom block was constructed within the arm of the convent that had suffered the most damage, while community facilities including the mayor's offices were located in the remaining space. Parallels can be drawn with Rossi's theory of urbanisation, where a 'permanence' within the city becomes rejuvenated by changing its use.[13] Rather than understanding buildings as part of a linear categorical concept of time, in which buildings are either part of the past or seen as a projection into the future, this offers a view of the city as a '*living present.*'[14] In this way, the city does not become frozen in history but instead is part of an evolving continuum (as described in the previous chapter).

A new green space is created around the building, differentiating this new central square from the everyday fabric of the town and setting it against the mountainous landscape. A linear block of new housing defines the edge of this green space, designed by Alrelio Galfetti. A central public square framed on three sides by the cloisters and the church creates a partially enclosed piazza used for public festivals, events and occasions (fig. 4.6 & 4.8).

The renovation of the convent and its surroundings led to the development of a plan to strengthen the core of the town, renovating central buildings, building new public buildings, creating a central precinct and ordering public spaces, reinforcing the centre of the village. The limit of this new centre takes the form of a tree lined perimeter road along which new proposals are positioned (fig. 4.9). The town cemetery is realigned to the geometry of the church; a row of new loculi (niches) mark a change in level in the cemetery, while a low wall encloses this well

12 Luigi Snozzi, interview with Pierre-Alain Croset and Gabriele Basilico, in Pierre Alain Croset, *Monte Carasso: la ricerca di un centro. Un viaggio fotografico di Gabriele Basilico con Luigi Snozzi* (Zurich: Lars Müller, 1996) p.17.
13 Rossi identified two categories of monument: the pathological, which is unchanged and impermeable, and the propelling, which is adaptable and reinterpretable. See Aldo Rossi, The Architecture of the City (Cambridge, Mass; London: MIT Press, 1982)
14 John Tuomey, *Architecture, Craft and culture: Reflections on the work of O'Donnell + Tuomey* (Kinsale: Gandon Editions, 2008) p.30.

Fig 4.10. Two apartment buildings define an edge to the town.

Fig 4.11. Verdemonte apartments

visited public space, defining its edges. The pedestrianisation of a road separating the church and cemetery links the two and integrates the cemetery into the civic centre. This is further defined by a gymnasium and community storage building located on the south eastern corner of the town centre. The gymnasium complex consists of a slightly sunken open air basketball court, a sunken gymnasium, and a colonnaded stoa that combined have a substantial urban presence that defines the limit of the new central complex. These buildings provide for the town more than sports facilities; the gym is used for social events, while the podium of the stoa contain a wood burning furnace that provides hot water for the town and community storage. However, it is the urban role of the new buildings that provide most for the town; the gymnasium is sunken so not to compete with the facing monuments and the stoa provides a place to meet for the townspeople.

With two major public buildings (church and school) defined, a third intervention acts as a counterpoint. The Mayor's house (fig.4.1) defies all preexisting planning legislation in the town, standing as a tower amidst an existing vineyard. It shows the importance of an exception to the rules in a particular situation; in this case its careful placement at the precise point where the new ring road turns makes it a key point in the village. The three storey tower and its boundary wall create an edge to the new ring road and limit the monumental area. It stands almost equidistant from the cemetery, church and gymnasium as a belvedere in a field of vines. By building vertically with a small floor area, the field of vines are protected and preserved and a key point in the new plan is marked. Its height makes it an important point of reference at the southern extreme of the civic centre.

4.5 Strengthening edges

The approach taken to the periphery acknowledges the town is threatened by the spread of suburban sprawl and aims to buffer the town against its impact. Natural edges of the town are identified and sprawl restricted using a mix of landscape and building. Two urban blocks define the periphery of the town to the east and west, linked by a line of vegetation (fig. 4.10 & 4.11). Perpendicular to the motorway, these long walls of affordable housing describe the limits of the town, clearly defining a zone for smaller scale future development. These blocks act equally as a town wall against the encroachment of suburban sprawl as they do as markers of the extent of the town. Combined with an eighteenth century town wall to the west of the town alongside the Sementina River and the rising foothills to the north of the town, three sides of the town are contained and their edges defined. Between these blocks, a pattern of vines was laid out, a piece of landscape infrastructure to organise and offer a use to the space between the blocks and suggesting how this zone of land could be developed in the future.

Fig 4.12. Guidotti Houses.

4.6 Consolidate, densify, infill

Increasing density and housing close to the centre aims to increase the population and enliven the town- increasing the need for services, sense of community and conviviality. Many older towns have a much denser core, while Monte Carasso has been developed with an essentially suburban character outside a small number of historic buildings in the centre of the town.

Planning policy prior to Snozzi's involvement supported a low-density approach, stipulating detached houses located in the centre of their plots. In order to increase the population of the town without it spreading beyond its limits, Snozzi proposed the subdivision of plots. This enables the creation of a variety of house types that were not available in the town, such as smaller, affordable houses, attached and terraced houses and apartments. This diversifies the housing stock and increases affordability and social mix, ensuring that younger residents can afford to stay in the town rather than being priced out.

New buildings edge the street creating a hierarchy of spaces from the public street to the private house and garden, improving the disparate streetscape. This cretes a sense of privacy and a safer environment for residents. The plan also includes a high ratio of floor area to site area, and a limit of building heights to three storeys maximum, except for special cases or if the roof is inhabitable. The twinned Guidotti Houses are a clear example of this approach (fig.4.12). Under previous regulations only an extremely narrow two storey house could be approved, located in the centre of its plot. At three storeys, the new semi detached houses are a storey higher than previous regulations allowed, filling the entire width of the plot and lining the street. By raising the ground floor, parking is on plot and allows a view through to the gardens beyond.

4.7 Connections

Links and routes around the town have been realigned to channel around the redesigned civic precinct. Parking is restricted to the edges of the town centre and is under a ring of trees.

The quadrangle of the monastery is opened up as a public square, with a second smaller public space outside the church doors. These two spaces form the central focus of the town. With a cafe, the school, a general store and church around the square, it is a well populated space and is frequently used for community events and meetings.

A new pedestrian link across the centre joins the school, church, gymnasium and cemetery (fig. 4.13). This route was pedestrianised as part of the redesign of the civic centre and creates a larger civic heart that encompasses all the communal facilities. A new public space is framed by

Fig 4.13. A pedestrian lane run through the civic centre, formerly a vehicular route.

Fig 4.14. A gymnasium and community storage building edge the civic centre.

Fig 4.15. The gymnasium and community storage building create a public space with a playground, enclosed by a stoa.

the gymnasium, a stoa behind and the cemetery wall (figs. 4.14 & 4.15). The reworking of these routes creates a stronger sense of centre and strengthens the town centre node.

Fig 4.16. Aerial view of the site, with the site, the 18th century wall and the civic centre picked out.

Fig 4.17. View of the site from the north east.

Fig 4.18. View of the site from the south east.

4.8 Seminar design project: Family housing

The seminar combined tutorials with both Snozzi and local architects with lectures. In morning lectures, Snozzi presented his single family houses, his work in Monte Carasso and urban projects around Europe. The seminar finished with two days of reviews and a public lecture from guest critic Paulo Mendes da Rocha.

Three briefs were offered in the 2006 symposium: New family housing on one of two sites in the town (one in amongst suburban housing and a second at the interface of the town and countryside); a memorial chapel and extension to the cemetery; and an urban design proposal for the extension of the town to the south (to the line defined by the earlier described apartment buildings). Of these projects, single family housing at the interface of town and countryside was chosen; the project offered the opportunity to explore two of the themes identified- working at the periphery and consolidation and infill on a vacant plot.

The site is located to the north of the civic centre on the edge of the village (fig. 4.16 & 4.17). The site has several historic features around it: to the north west, a catholic church sits on a promontory dominating the edge of the town below (fig. 4.18); to the west is an eighteenth century fortified wall, lining the bank of the river Sementina; and a dry stone boundary wall defines the east of the site. Detached residential dwellings in the centre of their plots are the common typology to the south of the site. To the north, the ground rises rapidly. The road from the town to the mountains winds around the site, bounding its east and west edges. The site slopes from southeast to northwest. Currently the site contains the remnants of two buildings; a stone wall creates a level footing at the centre of the site, while two timber agricultural sheds sit to the south of this platform.

- Brief

The project is designed to meet the planning policy guidenlines developed by Snozzi. As is common in Swiss building regulations, the guidelines set out a maximum building envelope and conditions where this can manipulated, as well as a site coverage ratio. The brief outlined the following constraints:

- Development is limited to a height of 9m, unless the roof is habitable, in which case the limit rises to 11m
- The building can embed itself up to 2m below ground in order to address the slope
- Development must meet a coverage ratio of floor area to site area of 1.0
- Maximum of 1.5m elevation of ground floor about street level

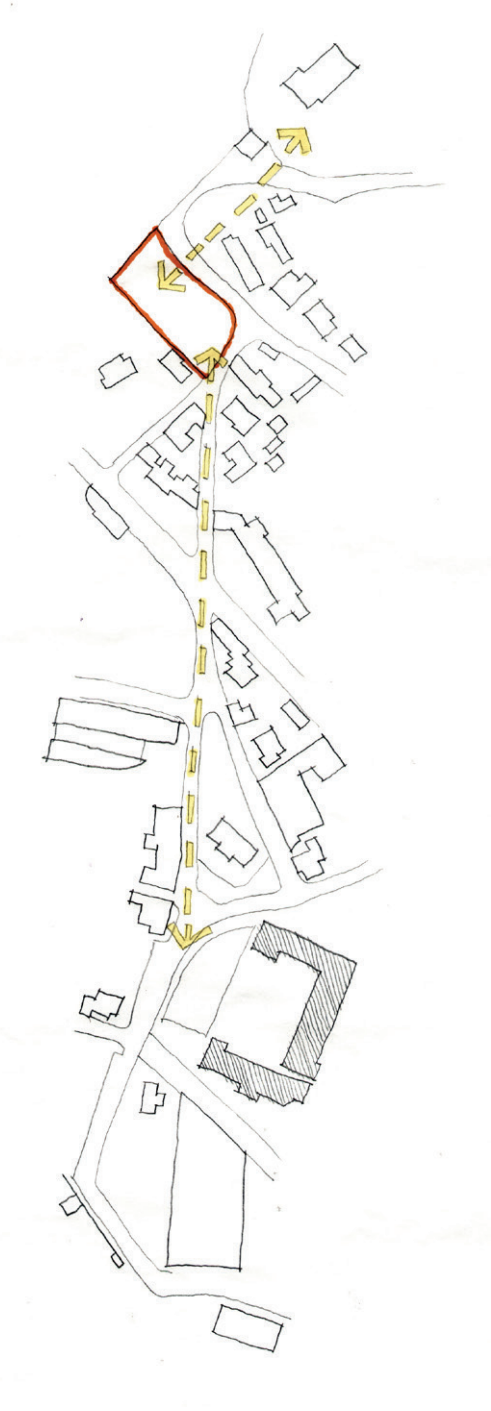
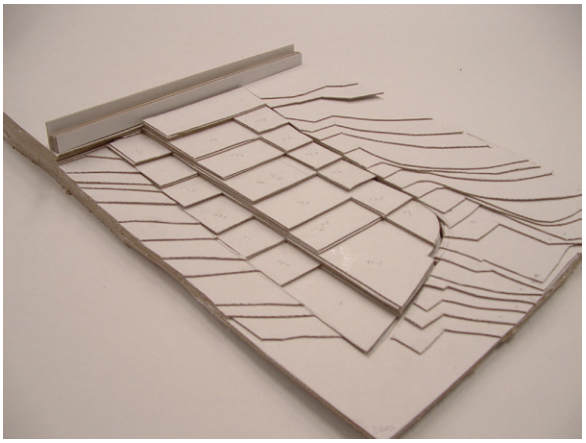
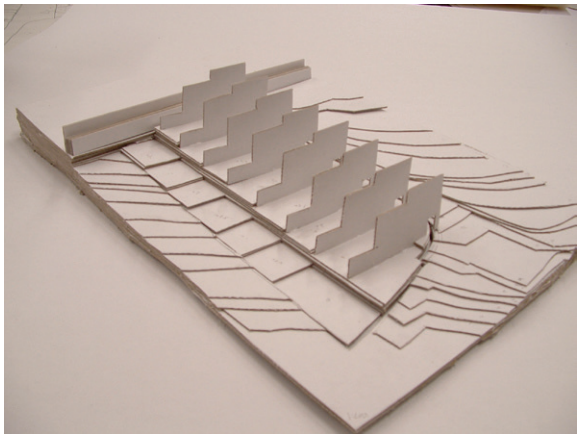


Fig 4.19. The relationship of the site to the civic centre and the church on the promontory above.





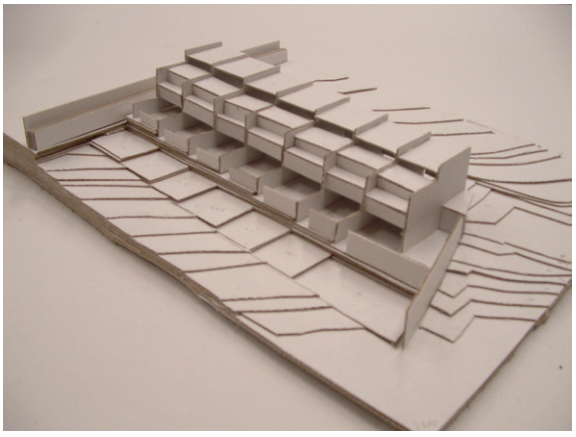


Fig 4.20. Sketch model showing site terracing, parti walls and the stepping form of the houses.

The brief for the project was for single family housing. Key requirements for each house were:

- Entrance hall
- Kitchen
- Living room
- Dining room
- Studio
- Master bedroom
- 2 single bedrooms
- Bathroom
- Parking for minimum 1 car per house

A number of communal facilities were also required:

- Communal washing facility
- Community space

-The design proposal

The site is on the outskirts of Monte Carasso, separated from town centre by main road but visible from the square. It is located on the edge of the town (fig. 4.19), mostly populated with single family houses in the centre of their plots with heights no more than 2 storeys. The building was therefore required to be low rise to fit with local plan.

Unlike the surrounding houses, densification of the site was important and a high proportion of floor area to site area was required- a ratio of 1 to 1 was demanded by the brief. This density could be achieved by building over three storeys, the maximum allowed by the local plan. Several moves were made that defined the building form:

- The site was formed into a series of terraces that address the slope in two directions on the site (fig. 4.20). This allows car ports to be built into the street facade while maintaining a strong street presence.
- The terraces would be separated by a series of cross walls that define the dwellings and conceptually repeat the eighteenth century wall.
- The mass of the building lines the street to the north of the site. This defines the edge of the street and reinforces the pattern of the settlement.
- To the south east of the site the street widens into a tree lined piazza wide enough to act as a parking court to houses to the east. Here, community facilities are located which hold the eastern boundary of the site.

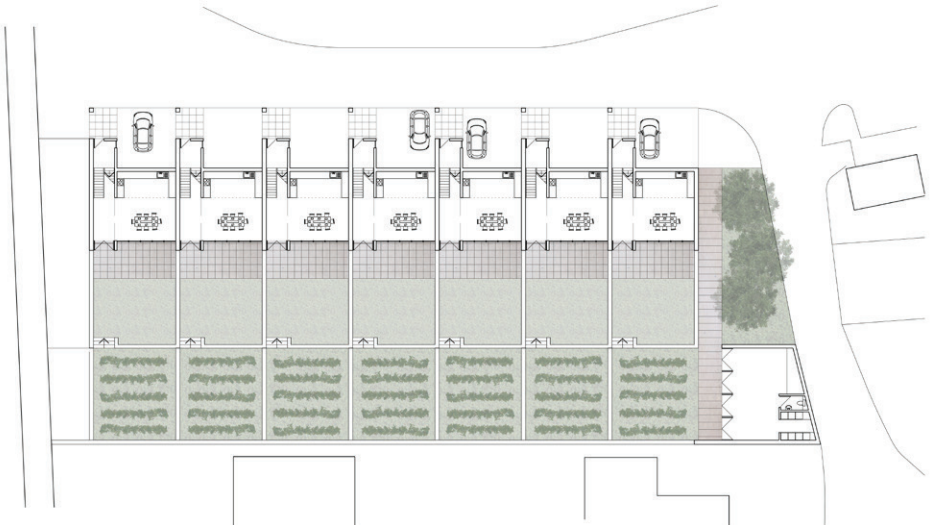


Fig 4.21. Ground floor plan

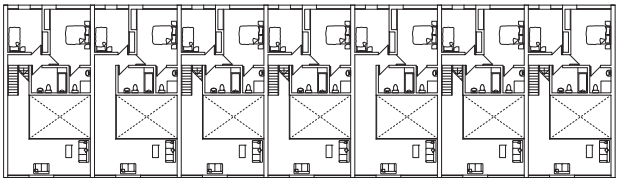


Fig 4.22. First floor plan

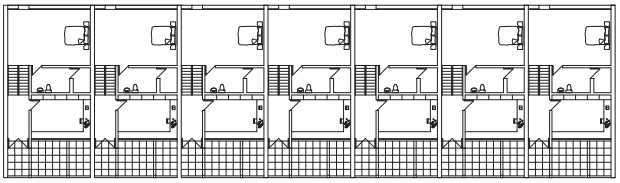


Fig 4.23. Second floor plan

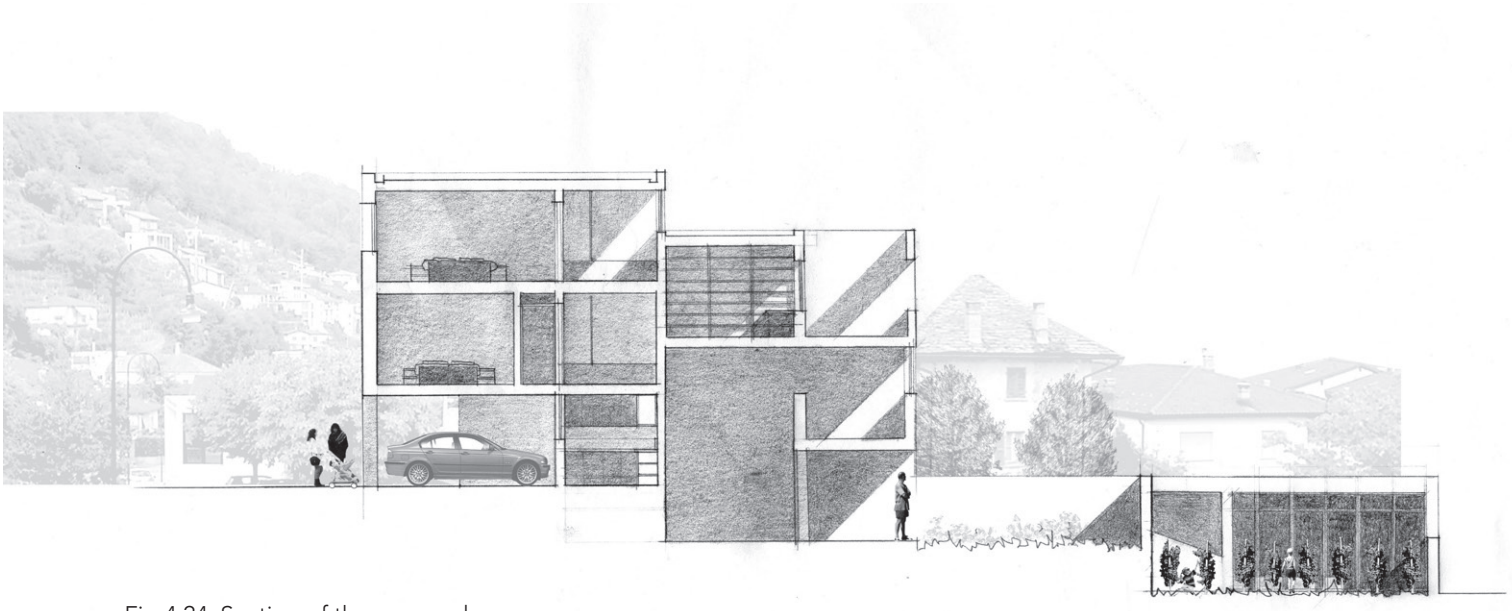


Fig 4.24. Section of the proposal.

- The apartments each have a split section, with a difference of half a storey between the front and the back of the house and gardens terracing from private to semi-private space.
- Each house steps down the hill to the east, creating a stepping form to the building mass.
- The block sits along the road, forming a solid edge to the street. This would have level access off the street, with a difference of half a metre between each of the dwellings. The building would also step following the slope down the road, stepping with each new dwelling. This form is seen as respecting the terrain and demonstrating the natural topography of the site.
- Directly off the street is a carport for two cars and the entrance lobby to the house, recessed below the building.

The section of each dwelling is divided into three zones, a bedroom zone alongside the road, a service core in the middle and a living zone to the rear of the house (figs. 4.24 & 2.25). The front zone has a master bedroom on the top floor, two smaller bedrooms below and the carport on the ground floor at street level. The service core contains the kitchen at ground floor level, and two bathrooms above. The living areas consist of a double height dining room, served by the kitchen, and a mezzanine living room above, all at a lower level than the entrance floor. The rear facade is recessed on the ground floor to prevent overheating. The dining room continues outside onto a terrace under the overhanging living room, and flows into a private garden to the rear of the house. Moving down the steps at the back of this garden, a strip of residents-only communal garden planted with vines is reached.

-Review and feedback

The final crit on the project, led by Luigi Snozzi, Alessandro Fonti and Paula Mendes de Rocha, raised several ideas that could improve the scheme and relate to the methodology developed by Snozzi in Monte Carasso:

- The stepped form of the building does not illustrate that there is a slope on the site. For Snozzi, to show there is a slope, the building should be a single block, expressing horizontality which would then contrast with the slope of the road. Although the critics said the stepping form was interesting in section, they did not see it articulating the nature of the site in elevation.
- The building could better address the 18th century wall. This was a common problem across all the student schemes. Perhaps by making more of the route alongside the wall by making it a public route onto the wall or by utilising the space as communal space this could be resolved. It was suggested that a dwelling should be removed to facilitate this, but this would reduce the density to below the index of 1.0 floor area to site area.

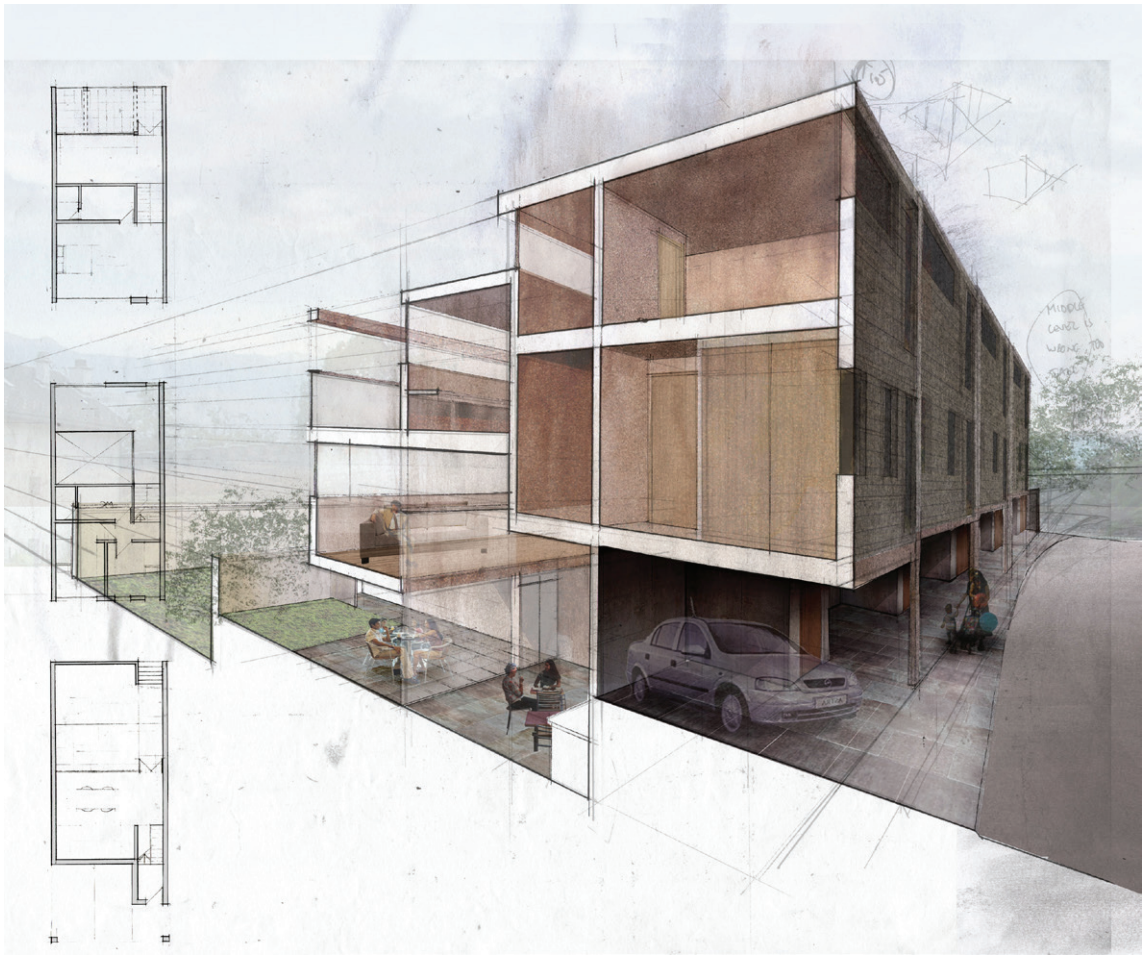


Fig 4.25. Perspective section.

- The terracing of the communal space to the rear of the dwellings was not seen as necessary, as it becomes and extension of the garden and not a space used by all. Maintaining the slope or inclusion of a common facility such as a swimming pool could change this.
- The common facilities should wrap around the corner of the building, opening onto the corner piazza, thereby removing the enlarged garden.
- The architectural language of the proposal was questioned. Rather than a pure concrete form as Snozzi would propose, the design proposal suggested timber cladding to the street with concrete cross walls. It was suggested that this undermined the clarity of the architectural form and detracted from its simplicity.

4.9 Findings

The incremental approach taken in Monte Carasso and the long evolution of a unique planning process based on as found conditions offer an alternative to current approaches to placemaking in small towns. The approach combines several aspects: a morphological understanding of place; an understanding of typology derived from Rossi; and a belief in traditions of the European city.

By focusing on the morphology of the town, its centre and edges through a network of small scale interventions, the approach reinforces the sense of place and creates strong and recognisable edges. Increasing the density of the fabric defines the street pattern and tackles affordability by creating smaller houses and infill development. Slow and careful manoeuvring ensures the wider impact of projects, providing an economical way of working in a small town. While it addresses specific issues that exist in Swiss towns, an incremental and economic approach based on the Monte Carasso example could provide a model for British market towns.

The opportunity to take part in the design seminar gave first hand experience of Snozzi's design approach. Through Snozzi's lectures and tackling a design problem in the town, a greater understanding of the planning process has been gained. The urban proposals suggested by Snozzi in Monte Carasso consist not of projects conceived in isolation, but instead suggest a series of projects that in combination renew the urban fabric and create new relationships within the town. Snozzi considers the whole context, creating new urban relationships over time. The result is a measured, cautious, incremental transformation of the town through a series of projects at different scales, both public and private. This started with the Verdemonte apartments, continued with the renovation of the Augustinian convent, the re-planning of the civic centre, and numerous private commissions.

Working with the community to question the planning policy in the town through paper based and realised projects, Snozzi has been able to simplify the town's planning guidelines and to reduce these from over one hundred items to only seven, which are constantly tested and modified as appropriate:

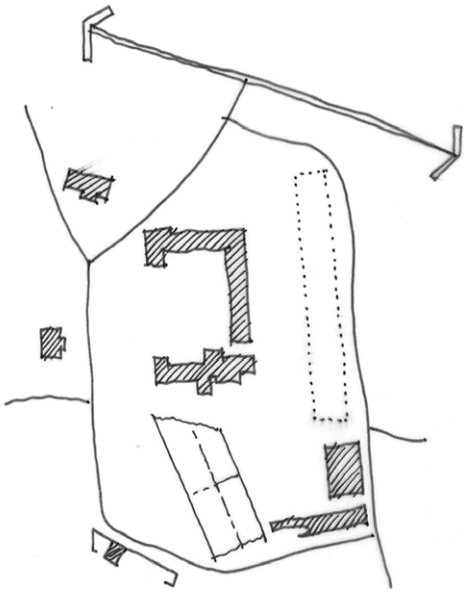
> *"Possible norms are established for small areas which are homogenous in character, in which there is a true demand for construction; these norms are then approved by the municipal authorities; then comes the stage of verification through concrete works. In this phase, problems may arise concerning the norms, leading to their reformulation. The cycle continues in a dialectical process between the planned proposal and the concrete realisation."*[15]

The continual testing and modification of the planning regulations has been extremely effective in a small town, where residents meet to discuss the planning procedure as cases arise. The key guidelines set out are:

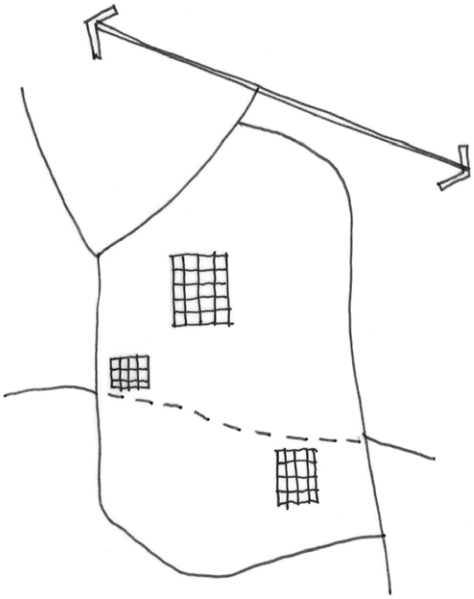
- Increasing density through infill between existing houses.
- The creation of a density index linking building footprint to site area.
- Building against site boundaries as opposed to centrally as was typical before, thereby defining the public realm.
- Reducing plot sizes so multiple dwellings occupy what was formerly a single plot.
- Lifting limitations regarding material or formal language.
- Limiting building heights to two storeys unless certain conditions are met.

The incremental approach has developed the town from a rural community under threat from expanding urban areas into a town with its own distinctive identity and sense of place. By focusing on the definition of centre and edge through a network of small-scale interventions, the approach reinforces the sense of place and creates strong and recognisable limits to the town. Increasing the density of the fabric strengthens the street pattern and tackles affordability by generating smaller houses and infill development. Slow and careful manoeuvring ensures the wider impact of projects; working one site at a time, every project is considered with its urban role in mind regardless of scale, *"like fitting together a village sized puzzle in which every house, every item of infrastructure, down to the most trivial feature- a path, a park bench, a garden wall- has its proper place."*[16] Each project celebrates the particularity of its individual site, but a wider impact is sought where projects extend their influence to the urban realm.

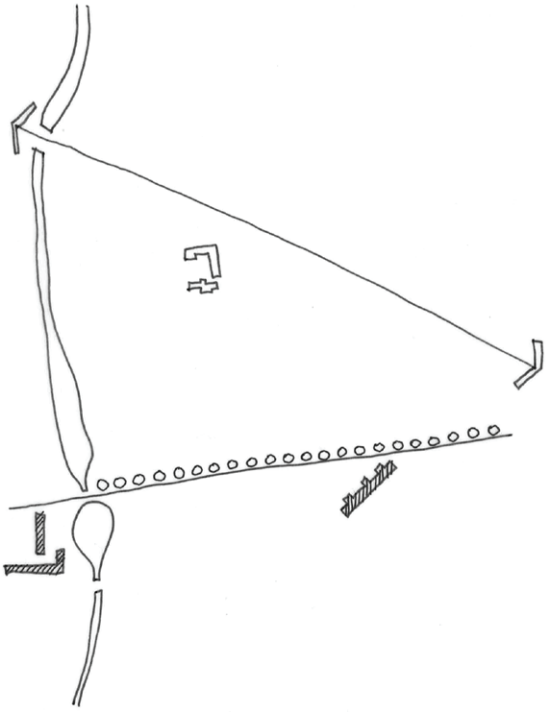
15 Luigi Snozzi, quoted in Peter Disch, *Luigi Snozzi: the complete works* (Lugano: ADV, 2003) p.53.
16 Pierre Alain Croset, 'Luigi Snozzi & Monte Carasso: A long running experiment' in La Visiteur 16, (2010) 122-124 (p.122).



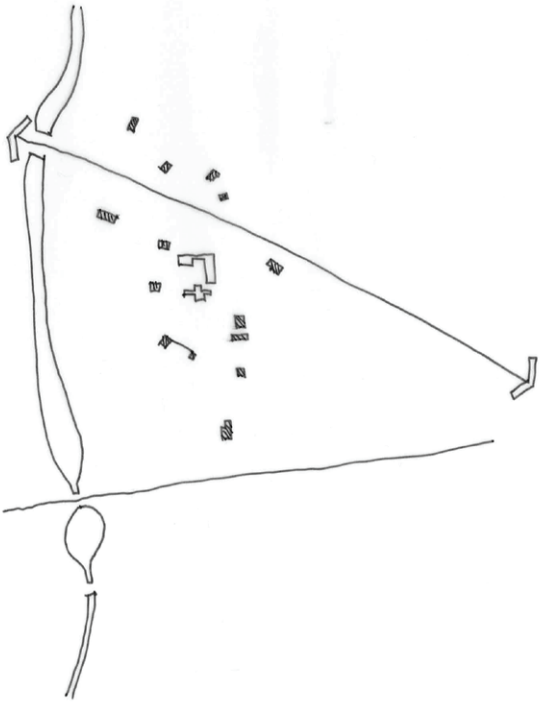
Defining the centre



Connections



Strengthening edges



Consolidating, densifying, infilling

Fig 4.26. Four themes drawn from the work of Snozzi in Monte Carasso.

The result is an architecture that resists the neo-vernacular and is unashamedly contemporary in form and appearance. The project undertaken by the author attempted to question this approach by softening the building using timber and a stepping building form that reflected the landscape rather than contrasting with it. This is perhaps a reflection of the influence of a 'British' approach, where the influence of the picturesque and townscape has a residual influence on urban design and architecture. Snozzi's approach is spatially powerful, but it unlikely that replicating his architectural language in the UK context would be a widely acceptable approach. Instead, underlying principles will be drawn from Snozzi's approach and adapted as necessary to reflect the traditions, sense of place and genius loci in the UK context.

The experience of the seminar and literature has allowed a distillation of the key aspects of Snozzi's approach that will now be explored further in the UK context. The four principles are as follows (fig. 4.26):

1) Defining a centre
2) Strengthening edges
3) Consolidating, densifying, infilling
4) Connections

These themes will be taken forward and tested in the UK context through design studies in Ludlow, Shropshire. Testing these urban moves in a well known historic market town will assess their transferability to the UK context and will assess how these principles may adapt to suit the specifics of the UK market town. How this will be achieved will now be described in the methodology. While these four themes are seen as applicable to the UK context, the architectural language employed by Snozzi is not seen as directly replicable. To address this, the chapter following the methodology will describe the development of an operational framework that is based in an exploration of place and genius loci to inform the spatial, organisational and aesthetic principles of potential projects.

5.0 METHODOLOGY

5.1 Introduction

The previous chapters have highlighted the sense of place evident in market towns, their contemporary challenges, and identified the importance of placemaking. Following a critique of current practice, the outcome of a pilot study in Monte Carasso was reported to inform an alternative approach to UK market towns.

In this chapter the hypothesis is revisited in relations to aims, objectives and limitations before a methodology for undertaking research by design in UK market towns is described. The literature review reveals sensitive and fragile cores surrounded by sprawling low-density housing estates, industrial units and retail stores which draw people away from town centres. The intention of the thesis is to identify how intervention within the historic core of market towns can strengthen, define and reinforce their sense of place as an alternative to peripheral development.

Design is the primary vehicle through which the research is undertaken and through which the hypothesis and aims are tested: a formal and spatial enquiry using the tools of the designer. The research is personal and reflective. However, it has been underpinned by practice at Design Research Unit Wales (DRU-w) between 2005 and 2012, a design studio based in the Welsh School of Architecture, Cardiff University, and is influenced by the approach and values of the group of designers working in the Unit. The approach of DRU-w is explained to provide a background to the context in which this thesis has been undertaken.

5.2 Hypothesis

A place-specific approach to development is needed to ensure the character and distinctiveness of UK market towns is preserved and enhanced.

5.3 Aim and objectives

The aim of this thesis is to develop a place-specific approach to market towns based on the integration of new buildings into historic town fabrics and to test this through research by design. The argument made in the thesis is that the growth and evolution of sustainable market towns should be as much spatial as it is economic and political and suggests a positive role for architects in enhancing the experience of living and working in a 21st century market town.

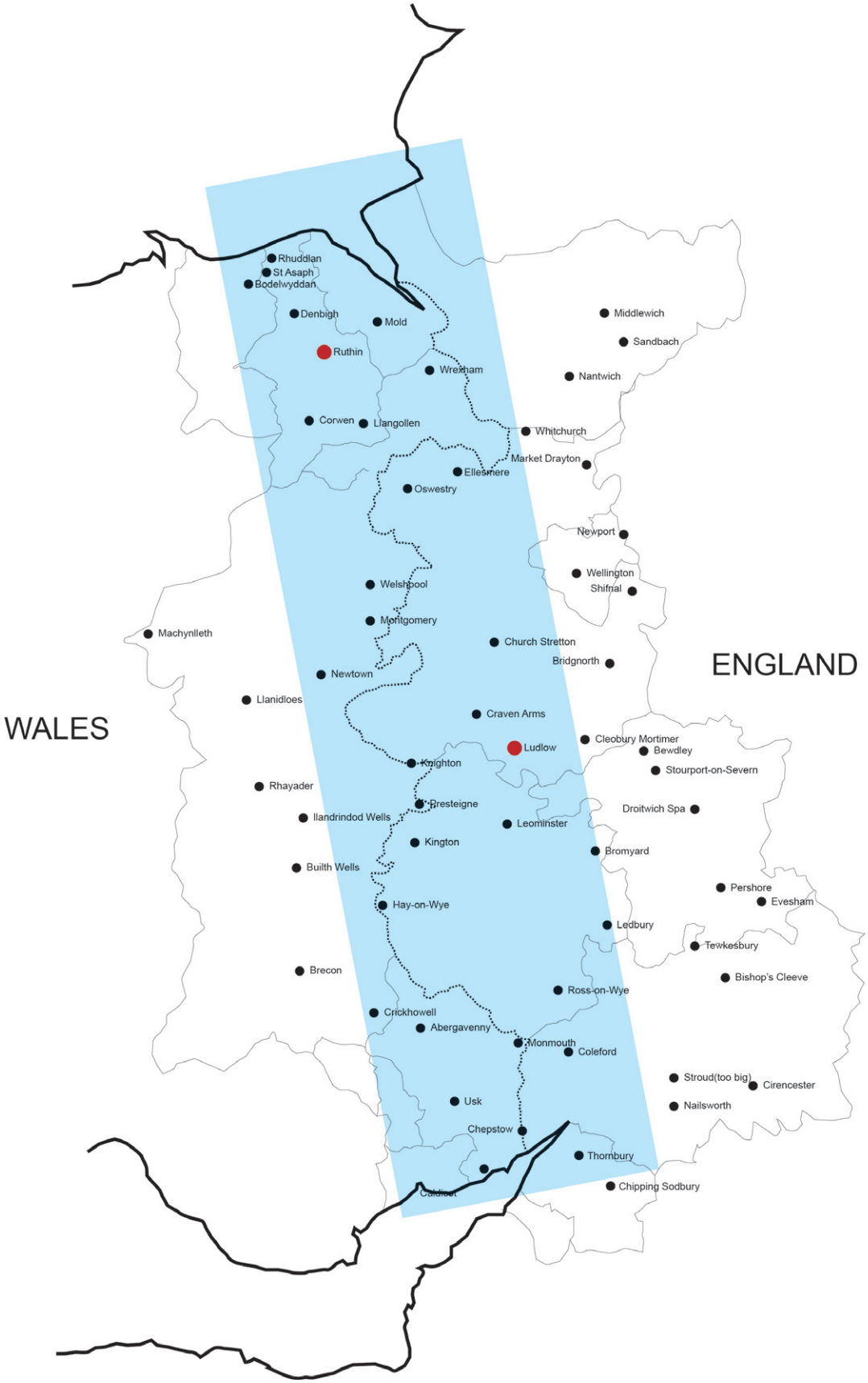


Fig. 5.1. The study area: While the extent of the Welsh Marches is considered to be the counties either side of the border, the towns studied sit within a narrower band (shown in blue) along Offa's Dyke, the border footpath between England and Wales.

Within this aim are a number of objectives:

- To assess the transfer of Luigi Snozzi's approach to market towns in the UK;
- To develop a method of mapping and analysing rural towns that becomes an armature for design, revealing potential rather than a true record of the history and development of a place;
- To develop an operational framework for design in historic town fabrics;
- To use design as a tool to test and refine the operational framework, working through research by design and practice based research.

5.4 Scope and limitations

Market towns have been identified for this study due to their identifiable scale, freestanding nature, historic character and distinctive sense of place. These small towns are a rarely explored field of operation for the architectural profession, but are of a scale where they can be understood fully and can be acted upon as 'urban laboratories'. This has particular relevance with the growth of localised planning processes as identified in the literature review and the case study of Monte Carasso with its long standing collaboration between town and architect. However, their scale and population leaves them an awkward 'in-between' position. Falling between urban and rural policy and strategy, they are places where urban and rural challenges collide.

The Marches, a geographically defined area on the border between England and Wales, has been identified as a suitable context in which to explore the thesis (fig. 5.1). The distinct history and geography of this contested borderland has led to common town forms across the region. The relative accessibility from the author's institutions has enabled case study towns to be visited and re-visited throughout the study period. The research by design focuses on the physical aspects of towns and their hinterlands; while not diminishing the importance of economic, social and political aspects of life in market towns, the author's profession as an architect and architectural training has led to consideration of the built environment as the starting point of the thesis.

The study has focused on the historic cores of market towns. As the literature review reveals, these sensitive and fragile cores are increasingly surrounded by sprawling low-density housing estates, industrial units and retail stores which draw people away from town centres. The intention of this study is to suggest how intervention within the historic core can strengthen, define and reinforce their character as an alternative to peripheral development. It is acknowledged that this approach is unlikely to provide the quantity of new development

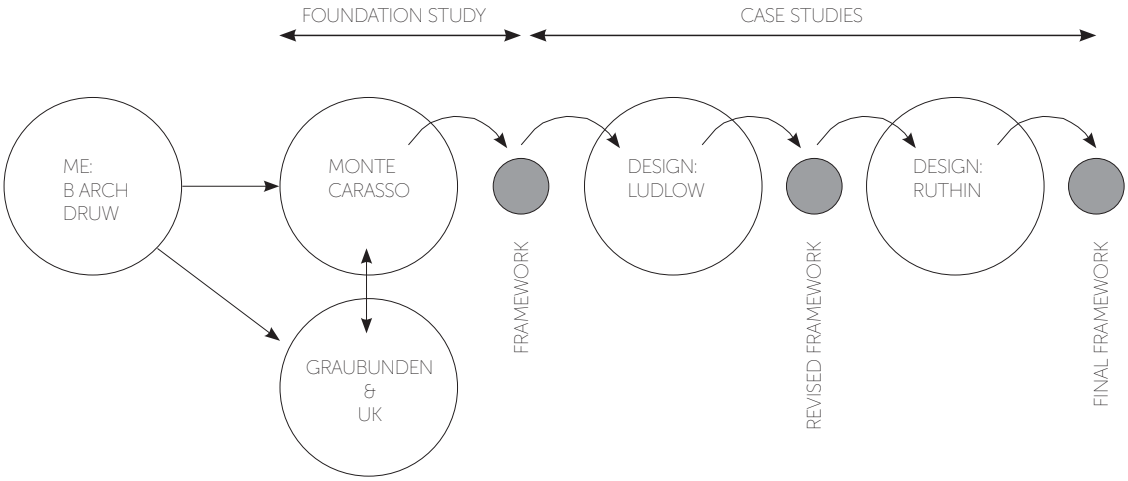


Fig. 5.2. Outline of the thesis

Fig. 5.3. Concept sketch and challenges map from DRU-w's Ruthin Market Town of the Future project.

Fig. 5.4. Ruthin Future exhibition opening

Fig. 5.5. Working with students to generate ideas for public spaces around Ruthin.

required to meet Government housing targets and that further expansion may be required in some market towns. However, the study aims to suggest that by strengthening historic cores, consolidating and defining their fabric, increasing density and creating connections to suburban developments and the hinterland beyond, historic cores can be revitalised as dynamic places to live, work and play.

Following the pilot study in Monte Carasso, two Marches towns have been selected as locations for design-led case studies (fig. 5.2). Ludlow, Shropshire, was selected as it is seen by many as a quintessential market town- well preserved, with a strong character and a distinctive focus on food. Working in a well constituted and widely admired town will test the method in a sensitive setting, before testing in a second town to assess transferability.

Ruthin, North Wales, was selected as a second case study as its fabric is more fragile and less well constituted than Ludlow. Furthermore, the author led the development of a community-led town plan for Ruthin Town Council while in practice at Design Research Unit Wales (fig. 5.3, 5.4 & 5.5). This 'real life' experience forms a backdrop to the design study and this supporting experience lends a realism to the proposal that may otherwise be lacking. While the two towns explored cannot be expected to demonstrate the full range of issues shaping the character of twenty first century market towns, the scale and legible structure of the chosen towns enables principles to be identified and tested. Testing the framework in a second town aims to ensure the transferability of the method to other settings; the risk with only one case study is that it becomes so specific to Ludlow that it does not function in other towns.

While the model will be tested and implemented in the Welsh Marches, it is the intention that architects and designers may employ it across England and Wales and potentially further afield in helping to understand and design new buildings in historic environments.

5.5 The role of the author

The author's profession as an architect has been the starting point for the research by design methodology employed in the thesis. As described in the preface, the thesis has emerged from a personal interest that has grown from the author's B Arch design thesis (completed in 2005) exploring place and time (fig. 5.3). The two projects forming the core of the thesis explored ideas of hidden histories and the revelation of archaeology in two small settlements, Caerleon in South Wales and Lyme Regis, Dorset. The author's interest in rural contexts and the positive impact of contemporary architecture in these settings developed from these studies.

The research by design in the thesis was commenced while employed at Design Research Unit

Fig. 5.6. B Arch final design project, exploring time and place in Lyme Regis.

Fig. 5.7. DRU-w's Environmental Resource Centre, Ebbw Vale.

Wales (DRU-w) between 2005-2012. DRU-w is a design research practice based in the Welsh School of Architecture, Cardiff University, established in 2001 with the aim of founding the creative activities of the design studio on a research-based approach. DRU-w has undertaken numerous commissions in which research-based design is allied to notions of sustainability, tectonics, material innovation, environmental and functional performance, and economy. The unit aims to bridge from academia to practice; while projects receive funding from different sources (research councils, public authorities, funding applications, private development) all employees are engaged with academia and academic research as well as the wider construction industry and the public. Alongside design projects, DRU-w carries out orthodox research in various fields, publishing its research interests in journals and at conferences, as well as contributing to teaching at the Welsh School of Architecture. The unit aims to make architecture of strong forms, constructed in a legible way and resourceful manner from local materials, and responding to the physical, social and cultural environment of Wales.

Projects undertaken by DRU-w are developed primarily through design-oriented and practice-based research. These modes of design research are primarily process-led; emphasis is placed on the role of design, practice and the development of physical outputs within a body of research. The emphasis is less on the final output of design, which may not encompass all the findings of the research, but instead on the process of design and critical reflections upon this. Design projects are therefore seen as a vehicle to test, analyse and demonstrate the aims and objectives of research and not only as an end in themselves. Further, the unit strives to achieve 'critical' practice, where "The quality of the outputs (designs) '*implicitly represent a critical commentary on the production of ordinary practice.*'"[1]

Employment at DRU-w offered the chance to take advantage of opportunities of benefit to the development of the thesis. In particular, the engagement of DRU-w to carry out an analytical study of Ruthin, a market town in rural North Wales, provided a vehicle to test the ideas of the thesis with a live client. A further successful funding bid to Beacon For Wales extended the project into the development of a community-led town plan for the town, allowing a number of themes from this thesis to be tested with a real community.

Since leaving DRU-w in 2012, the author's interest in design in market towns has continued through involvement in a number of community-led planning initiatives in market towns in Wales. These include the development of Shape My Town, a toolkit for resident-led neighbourhood planning in Welsh towns, villages and neighbourhoods and involvement in teaching projects in small towns in England and Wales.

1 Wayne Forster, Steve Coombs and Rhian Thomas, 'The architect and the academy: Research through design at the Welsh School of Architecture' in *The Oxford Conference: A Re-evaluation of Education in Architecture,* ed. by Susan Roaf and A. Bairstow (Oxford: WIT, 2008), p.363.

5.6 A design-led enquiry

The thesis is a spatial and formal enquiry carried out through the mechanisms of design, with a high degree of design content. While the study combines a number of research approaches it will primarily be carried out through research by design. This section aims to define research by design and how it has been applied.

Architectural design research is a relatively young discipline that does not yet have an established framework of research methodologies. It has been criticised for its messy nature; the unpredictable and non-linear sequence of design does not fit easily with established research processes.[2] However, the European Association for Architectural Education (EAAE) Charter acknowledges that design can form a key component of architectural research and describe its ability to meet commonly applied criteria of research if properly framed:

> *"In research by design, the architectural design process forms the pathway through which new insights, knowledge, practices or products come into being. It generates critical inquiry through design work. Therefore research results are obtained by, and consistent with experience in practice."*[3]

The charter identifies a number of characteristics that help inform a methodology for the design process:

- The creative act of designing is the central process to design research. This is supported by Fraser's assertion that in design research the "creative aspect becomes the dominant part of the investigation."[4]
- Peer review (of method, context, process and results) is essential to maintain the quality of the research. This should be undertaken during the process and not only at the end.
- The research makes its processes and foundations as clear and as understandable as possible. This ensures the research can be followed by peers and allows dissemination.
- Design research needs to be linked to practice and studio work. A key aspect of design research is its ability to bridge the academic and practice divide in architectural research, a quality reinforced by the RIBA.[5]

All of these characteristics are integral to the methodology employed in the thesis. The design research will follow a clear methodology to ensure it is transferable, legible and understandable.

2 Murray Fraser, *Design Research in Architecture* (London: Ashgate, 2014) p.3.
3 European Association for Architectural Education, *EAAE Charter on Architectural Research* (Leuven: European Association for Architectural Education) <http://www.eaae.be/old/research.php> [accessed 19.09.14].
4 Murray Fraser, ibid. p.3.
5 RIBA, *What is architectural research? Architectural Research: Three Myths And One Model* (London: RIBA, 2007) p.4.

Fallman identifies that research by design is about being engaged in a specific situation, where the design process is one of interpretation and creation of meaning. Design is seen as a cyclic and iterative creative process; stages of analysis, synthesis, and evaluation are interwoven. The designer operates between and around the stages throughout the design process in a conversation with the concrete reality of a site. This 'designerly thinking', as it has been described by McClean, "*raises questions and ignites the sparks of curiosity that instigate activity.*"[6]

Schön describes how throughout the design process designers "*work simultaneously from the unit and from the total and then go in cycles- back and forth, back and forth…*"[7] Schön identifies the cyclic nature of the design process and the continuous iteration and revision that takes places through the life of a project. Pallasmaa similarly describes the design process as beginning,

> *"with an initial idea that is developed for a while, but soon the concept branches out into new paths, and the pattern of criss-crossing trajectories grows ever denser through the process itself. Design is a process of going back and forth among hundreds of ideas, where partial solutions and details are repeatedly tested to gradually reveal and fuse a complete rendition of thousands of demands and criteria, as well as the architect's personal ideas of coordination and harmonisation, into a complete architectural or artistic entity."* [8]

Schön terms this continual referencing and testing of ideas a 'reflective conversation'[9] with the situation. Similarly, Fallman describes the designer as a "*self-organising system with constructive as well as reflective skills.*"[10] The designer "operates from the available means but treats them abstractly, by seeking to determine and redefine the roles they can play in the given situation by entering into a dialogue with them"[11] in a "*reflective conversation with the materials of the design situation.*"[12]

The dialogic exchange between situation and designer as alluded to by Schon, Fallman and Pallasmaa has been further explored by Coyne and Snodgrass who describe the 'reflective

6 Susan McLaren, *Designerly Thinking*, (Livingston: Education Scotland, unknown date) <http://www.educationscotland.gov.uk/Images/Designerlythinkingarticle_tcm4-654736.pdf > [Accessed April 13 2015]
7 Donald Schön, *The Reflective Practitioner: How Professionals Think in Action* (New York: Basics Books, 1983) p.78.
8 Juhani Pallasmaa, *The Thinking Hand: Existential and Embodied Wisdom in Architecture* (Chichester: Wiley, 2009) p.107.
9 Donald Schön, *ibid.* p.78.
10 Daniel Fallman, 'Design-oriented Human-Computer Interaction' in *Proceedings of the SIGCHI Conference on human factors in computing systems* (ACM, 2003), pp.225-232. (p.227).
11 Claude Levi-Straus, '*The Savage Mind*', quoted in Daniel Fallman, ibid. p.227.
12 Daniel Fallman, ibid. p.227.

conversation' as an example of a hermeneutic process:

> *"the hermeneutic act of designing follows a dialectical structure of question and answer. The designer projects an anticipated completion of the work, and then enters into a dialogue with it, questioning its validity in the light of the particular factors that make up the design situation. The designer then allows the design situation to ask questions in its turn. The answers given by the situation and the questions it raises evoke further questions and answers, and the design proceeds by a back-and-forth, to-and-fro movement of query and response."*[13]

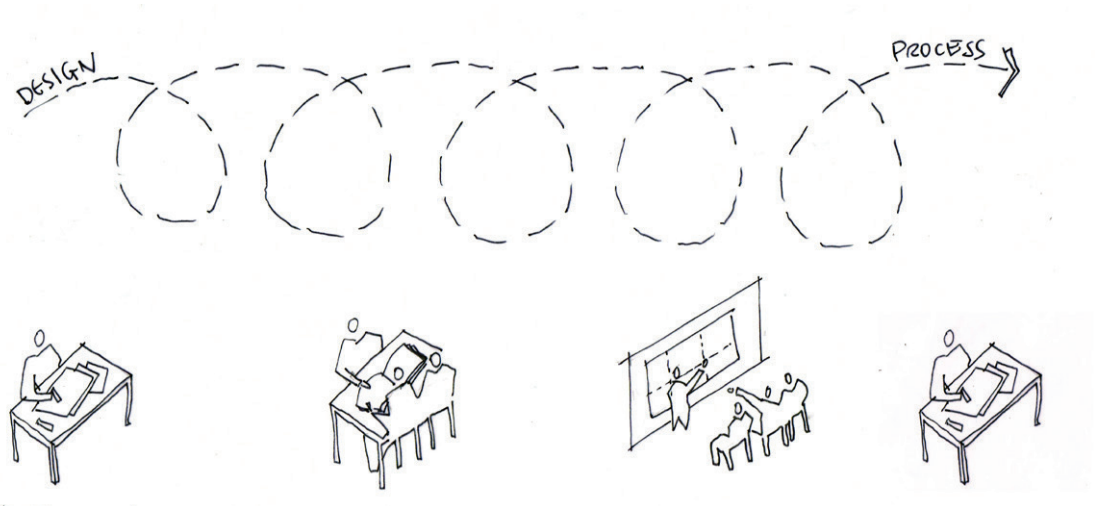
The questioning of the situation leads to a reciprocal questioning of the designer's pre-judgments, pre-understanding, values and attitudes, to which the designer must be open, "l*eaving themselves vulnerable, at risk.*"[14] The process of design leads not only to the disclosure of the artifact but, if embraced, can also be self-revelatory by exposing the preconceptions and preconditions that are constructive of the artifact.

The research by design will be undertaken in an approach Groat and Wang describe as mixed method research.[15] In order to test and appraise the analysis and mapping of market towns and to test a design framework for new buildings in historic cores, the research will include historical and interpretive research, qualitative research and case studies. Ways of mapping and exploring place are tested through design studies. Ideas are applied to selected sites through the tools of the architect: sketches, diagrams, drawings and both physical and computer models. These are intuitive ways of developing a design idea and provide a way of critiquing a design throughout the process. Designs will be further informed by gathered information, knowledge and best practice precedent to provide a basis for making valid design decisions. There will be a process of acknowledging previous work in historic settings in the UK, which will inform the developing design proposals. These processes are supported by case studies and precedent examples drawn from best practice.

5.7 Critical practice & reflective design

The above examples suggest the design process is both messy and complex. It is both iterative-traversing and revisiting ideas- and reflective- testing and retesting partial solutions (fig. 5.8). In this thesis, design strategies are critically analysed and tested in progress through 'reflection-in-action.' This is an ongoing appraisal as a work progresses and is "central to the 'art' by which

13 Adrian Snodgrass and Richard Coyne, 'Is Designing Hermeneutical?' in *Architectural Theory Review*, 2.1 (1996) pp.65-97. (p.75).
14 Adrian Snodgrass and Richard Coyne, ibid. p.76.
15 Linda Groat and David Wang, *Architectural Research Methods* (New York: Wiley, 2003) p.362.



Reflection-in-action: Personal reflection and critical design

Reflection-in-action: Tutor guidance

Reflection-in-action: Peer review, exhibition and publication

Reflection-on-action:, personal, tutor and peer

Fig. 5.8. The reflective design process

practitioners sometimes deal well with situations of uncertainty, instability, uniqueness, and value conflict."[16] For the designs in this thesis, reflection-in-action will involve different research approaches including reading, questioning, appraising and making. Systematic documentation of reflection-in-action will play an important role in recording design proposals, bringing what Makela terms '*critical subjectivity*'[17] to the project. This will aid the capture of tacit and experimental knowledge embedded in the creative process and assist in making this accessible and communicable, as required by the EAAE charter.

While 'reflection-in-action' will take place as a project progresses, a critical review of the experiences of the designs, design process, and the operational framework will be carried out in what Schön terms 'reflection-on-action'[18]. This aspect of the research will enable critical interrogation and refinement of the design framework. Design involves a degree of tacit knowledge and interpretation and as a subjective research method requires effective critical analysis to "ensure that the critical information gained from the research process can be applied constructively and is appropriate for the situation at hand."[19] Critical analysis reflects on what Mäkelä describes as *"the issues explored but also on the goals attained and the reflection in action and practice itself."*[20] This further step is required to translate a reflective design process into a process that creates new knowledge or understanding of a situation. Projects will be assessed against the framework for design and will be a measure of its success. The framework will then be amended as appropriate in light of the reflection-on-action.

5.8 Design process

Design briefs undertaken will be developed in response to the themes of the literature review and the outcomes of the mapping process. They will aspire to facilitate an iterative design process. The briefs will prescribe performance criteria (accommodation and site, for example) but will be kept open in order not to constrain the design process or "send it down a blind alley."[21] The briefs will be flexible enough to change as necessary as the projects develop and will be subject to reflection in action.

The process of research-by-design and its resolution will be guided and informed by architectural design tools. The primary routes of enquiry will be though sketches, drawings,

16 Donald Schön, ibid. p.50.
17 Maarit Mäkelä, Reflection and documentation in practice-led research' in *Nordes* 4 (2011), p.2
18 Donald Schön, 'The Reflective Practitioner: How Professionals Think in Action'
19 Sally Augustin and Cindy Coleman, *The Designer's Guide to Doing Research: Applying knowledge to Inform Design* (New Jersey: John Wiley & Sons, 2012) p.xx.
20 Maarit Mäkelä, ibid. p.2.
21 Bryan Lawson, 'The Art of the Process' in *The Art of the Process: Architectural Design in Practice*, Ed. Louise Rogers (London: RIBA, 1993) p.8.

precedent analysis and models (physical and digital) with a bias toward the hand made, drawn and modelled. While the virtual and experimental are commonplace tools for architectural design, the "hand-mind-eye connection"[22] expressed in physical drawing and modeling creates space for reflection to occur, as Jonathan Sergison describes:

> *"When you draw by hand, you feel your way through a plan. The scale of the drawing is constant. You cannot zoom in and out in the manner permitted by a computer. A hand drawing is physical and charged with doubt, allowing for certain elements to be contingent until such time as they become resolved."*[23]

The hand-made and hand-drawn are seen as intuitive ways of developing a design and provide a way of critiquing a design throughout the process. Drawings are used to test composition, order and spatial layout, while models are used to test form and volume. The design process has been further informed by gathered information, knowledge and best practice precedent to provide a basis for making valid design decisions.

The design process and reflection on and in action will been recorded in several ways: through design diaries, a record of the stages of design alongside personal and tutored reflection and peer review; sketchbooks recording the thinking, sketches and precedent studies that support the design process; and, minutes of tutorial sessions, peer reviews and interviews drawn from audio recordings. The key stages in the reflective design process are recorded in the design study chapters in the thesis. This is presented in three parts:

- Key stages of the reflective design process
- Final drawings and models
- Critique and reflection through the operational framework

5.9 Peer review, presentation and exhibition

Throughout the development of the thesis, meetings, interviews and reviews with professionals skilled in aspects of the research have been carried out to gain guidance and feedback on the research process and design ideas. These have happened at critical points in the development of the research and have shaped the direction of the thesis. These include participation in the Monte Carasso Design Symposium 2006 and interviews with Jonathan Sergison (Sergison

22 Juhani Pallasmaa, ibid. p.60.
23 Jonathan Sergison, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) p.5.

Fig. 5.9. Mappings of Ludlow exhibited at the National Eisteddfod 2010 in Ebbw Vale.

Fig. 5.10. Mappings of Ruthin exhibited at Ruthin Craft Centre.

Fig. 5.11. Delight in the Everyday: Models and figure ground plans of lanes, alleys and yards in Ruthin, viewed thorugh peepholes, exhibited at Ruthin Craft Centre.

Bates Architects), Irena Bauman (Bauman Lyons Architects), Rhona Pringle (Yorkshire Forward & Accend) and Orla Murphy (University College Dublin).

Presentations have been made to research seminars at the Welsh School of Architecture (WSA), Cardiff University and the Department of Architecture & the Built Environment, University of the West of England (UWE). The methodology was presented at UWE's 'Design Research Symposium' in May 2015 alongside numerous design researchers from across the UK. In addition, academic papers have been presented at international conferences, including 'Economy', (6-8 July 2011 at the WSA) and 'Re-imagining Rurality' (27-28 February 2015 at the University of Westminster). Design work has been publicly exhibited through selection for competitive calls for artwork or exhibition content, notably Design Commission for Wales' exhibitions 'Reflecting Wales 09.09', exhibited at Howard Gardens, Cardiff, the Welsh National Eisteddfod in Ebbw Vale (2010; fig. 5.9) and at Ruthin Craft Centre (May 2010; fig. 5.10), and 'Delight in the Everyday', exhibited at Ruthin Craft Centre (2014-15; fig. 5.11).

Peer review critiques were carried out at significant points in the design process to aid evaluation of the design development and to provide guidance on future direction. Emeritus Professor Simon Unwin was a key reviewer though the process; his expertise and sensitivity in identification of place is seen as highly applicable to the aims of the thesis and offered important guidance. Peer reviewers also included Professor Bill Gething alongside tutors Professor Wayne Forster and Professor Peter Salter. Peer reviews have happened at critical points in the research process and have steered the direction of the thesis as well as ensuring the quality of the research.

5.10 A note on design layout

The design layout of this document has been considered as another aspect of the research. The combination of written text with visual images aims to express the interconnection of design and research. Images are not merely illustrative, but record the process of research and its documentation. Images primarily take two forms: mappings of place and speculative propositions. Mappings are designed to be communicative and analytical, revealing the hidden aspects of market towns and exploring latent potential. While often exploring one aspect of place, mappings are seen as interrelated: their overlay and juxtaposition reveals new insights and allows new possibilities to emerge. Speculative designs are represented through drawings and 3d or physical models. The layout of this document, with images primarily on the left hand page facing written text on the right aims to interlink the two components into one graphic whole where design and research are seen as complementary and of equal importance.

6.0 OPERATIONAL FRAMEWORK FOR DESIGN

6.1 Introduction

This chapter describes the development of an operational framework for design in UK market towns that encourages a place specific approach. It starts with a critique of Snozzi's approach in Monte Carasso, highlighting the confrontational architectural language of Snozzi's projects as problematic in light of the picturesque and visual tradition of placemaking in the UK. A second approach to placemaking is then described through literature that addresses the shortcomings identified. These two approaches are distilled into an operational framework for design to be tested and refined through design studies in Ludlow and Ruthin.

The operational framework creates a structure within which design studies will be undertaken. It identifies concepts and themes drawn from the work of others, formulated into a matrix of characteristics which act as constraints on the process of design. The operational framework will be used as an analytical and generative tool and a way of reflecting on the design outputs. Different aspects of the framework may be studied to different degrees depending on the specific context, design brief and issues identified in the case study locations. It seeks to align the rules identified in Snozzi's approach to Monte Carasso (Defining the centre, edges and boundaries, consolidation and densification, and connections) with an architectural and formal approach identified as applicable to the UK market town context.

6.2 A critique of Snozzi's approach in Monte Carasso

Snozzi's approach of understanding morphology in depth to identify and strengthen underlying urban structures is seen as applicable to the UK context. His approach builds on European traditions of urban form and sees the historic model of the European city as worthy of continued exploration. The Swiss Tendenza emphasised a morphological diagnosis of a place, a concern for specific cultural circumstances and modernist principles derived from the neues bauen and vernacular modernism.[1] Its autonomy and difference suggests a critique of emerging consumerism and the political situation in the canton. However, as discussed in chapter 4, while Snozzi's urban rules are seen as applicable, the strategy of confrontation between new buildings and the context is seen as too strong-handed to be widely applicable or accepted in the UK context. The influence in the UK of the townscape movement must be acknowledged, an impact that was not felt in the Ticino. The UK context was strongly affected by the townscape

1 Irena Davidovici, *Forms of Practice: German-Swiss architecture 1980-2000* (Zurich: gta Verlag, 2012) p.58.

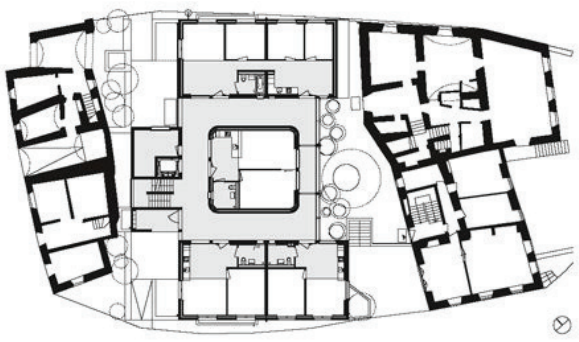
movement, with many of the articles published in the Architectural Review focusing on rural towns in particular and having a powerful impact on the approach taken by designers in these settings. While seen by its advocates as a method of integrating modern buildings into sensitive contexts, townscape became a byword for conservatism, sentimentality and romanticism.[2] It was highly influential on the civic trust and heritage movements and alongside the presence of conservation areas in the historic town cores suggests that architectural difference would be less acceptable to local people or policymakers. The emphasis on the visual and scenographic as a principle for design is in contrast to Snozzi, whose materials and forms are nearly always in sharp contrast to the original fabric or landscape. His approach is characterised by both respect and confrontation: respect for the site, the cultural context and landscape, and confrontation with perceived conflicts and problems. While Snozzi's projects respond to the sense of place, what emerges from the literature is a need for a sensitivity to the visual aspects of placemaking as well as the underlying structure of place as seen in Monte Carasso.

6.3 Extending Snozzi's approach

Following critique of Snozzi's approach, alternative practitioners were sought whose architecture was seen as complimentary in their reading of place but whose approach addressed the shortcomings identified. To this end, two complementary approaches are introduced with a shared interest in the familiar and the everyday: German-Swiss architecture in the Graubünden canton from 1980-2000[3] and an English realist sensibility toward the everyday (henceforth termed English realism) that emerged in the UK in the latter part of the 20th century. This is inspired in part by Alison and Peter Smithson and practiced by Sergison Bates Architects, Caruso St John Architects, East Architects, Lynch Architects and Stephen Taylor Architects. The two approaches combine a strong sense of place and situation, awareness of classic modernism and a deep understanding of materials. Both are characterised by restraint and ordinariness; construction as a means of expression; use of imagery and memory; distortion and abstraction; and an engagement with their context and surroundings. While originating in different parts of Europe, the trajectories of these two groups of architects are becoming increasingly aligned. The early work of Sergison Bates for example, was considered 'Swiss' because of its development out of construction[4], and recent significant built works of these English practices are located in Central Europe and increasingly Switzerland. Furthermore, the principals of

2 John Macarthur & Mathew Aitchison 'Oxford Versus the Bath Road: empiricism and romanticism in The Architectural Review's picturesque revival' in *The Journal of Architecture* 17.1 (2012) pp.51-68 (p.51).
3 Davidovici focuses on the timeframe 1980-2000, as the period was associated with certain recognisable practices and a specific cultural and intellectual climate. While Swiss architectural discourse in the period is seen as far from homogenous, Davidovici suggest that collective traits can be identified. See Irena Davidovici, *Forms of Practice: German-Swiss architecture 1980-2000* (Zurich: gta Verlag, 2012) p.7.
4 Martin Steinmann, 'A raison d'etre of its own', in *Sergison Bates Architects: Buildings* (Zurich: Quart Publ. 2012) ed. by Heinz Wirz pp15-20 (p.16).

Fig 6.1. Burgurhuus by Miroslav Sik



these practices are engaged in academia in Switzerland, for example in Zurich, Lausanne and Mendrisio.[5]

German-Swiss architecture between 1980-2000 was highly influenced by Aldo Rossi's professorship at the ETH Zurich[6], which anchored design in the urban realm with the historic city as a guide and model, and Robert Venturi & Denise Scott-Brown's careful study of the forms of the trivial and everyday in the city periphery.[7] Both Rossi's analogical approach and Venturi's pictorial, visual approach attempted to demonstrate how the material of architecture operated at a fundamental and emotional level. These two approaches informed the poetic-realistic method developed by Miroslav Sik's Analogue Architecture studio at ETZ Zurich (1983-91; fig. 6.1). This combined an exploration of everyday life; the poetic expression of the ordinary; and, a relationship with tradition, resulting in an architecture of experience and presence which is inseparable from its place but also provokes an evolution of the existing condition, mediating between local and contemporary, global conditions. Projects blend the will of the designer with the '*familiar reality*' of the location; architecture aims to respect its neighbours and enhance or strengthen the context, creating *"a more valuable whole."*[8]

Similarly, the work of the identified English realist architects, influenced by Team 10 and Alison and Peter Smithson, sits within a tradition of analogous architecture where ordinary typologies are given an artistic presence through distortion and familiarity.[9] Although not defined as a movement or a school, a rough agglomeration of architects that clustered around regular discussion groups at London's 9H gallery during the 1990's demonstrate shared concerns and ambitions that could be described as a realist approach. While in the Graubunden, this leads to an abstraction of form and a search for presence, in the UK context this has been characterised by a search for familiar forms that have a powerful emotional association combined with a concern for tectonic expression. This position has been informed by the Smithson's search for an alternative to orthodox modernism and the specific nature of the UK construction context when compared to Central Europe.[10] This everyday architecture is characterised by a distrust of

5 Jonathan Sergison is Professor of Architectural Design at the Accademia di Architettura in Mendrisio and was visiting professor at ETH Zurich and École Polytechnique Fédérale de Lausanne (EFPL); Stephen Bates was visiting professor at ETH Zurich and EFPL and is Professor of Urbanism and Housing at the Technische Universität in Munich; Stephen Taylor has been a visiting critic at ETH Zurich and EFPL; Adam Caruso is Professor of Architecture and Construction at the ETH Zurich; Peter St John was a visiting professor at ETH in Zurich and at the Academy of Architecture in Mendrisio.
6 Eidgenössische Technische Hochschule Zürich, the Swiss Federal Institute of Technology in Zurich.
7 Irena Davidovici, *Forms of Practice: German-Swiss architecture 1980-2000* (Zurich: gta Verlag, 2012) p.60..
8 Hinz Wirz, 'Forward' in Heinz Wirz [ed] 'Miroslav Šik : Architectur 1988-2012 (Luzern: Quart Verlag, 2012) p4.
9 Irena Davidovici, 'Tectonic Presence' in *Sergison Bates Architects: Buildings* (Zurich: Quart Publ. 2012) ed. by Heinz Wirz pp.9-14 (p.9).
10 Sergison Bates cite conservative planning authorities, the Egan report and design and build contracts as of particular note in contrast with other parts of Europe. See Jonathan Sergison & Stephen Bates, 'More tolerance' in Jonathan Sergison, *Papers* (London: Sergison Bates Architects, 2001) pp.16-27.

Fig 6.2. Walsall Art Gallery, Caruso St John

the heroic or fashionable. Its resistance is based in the real- in the nature of lived experience, the familiar and the ordinary (fig. 6.2). Projects reveal hidden notations of the situation; use familiar and recognisable forms; extend and embed into networks of ways and routes; use direct construction and mediate between the past, present and future.[11]

In this chapter the themes that emerge from the two approaches are described and their crossover explored to inform the development of the operational framework. The themes identified have been drawn from a number of key sources. The commonalities found in Swiss-German architecture have been described by Jaques Lucan in *'A matter of art: Contemporary architecture in Switzerland'*, Irena Davidovici in *'Forms of Practice: German-Swiss architecture 1980-2000'*, 2G's special issue, '*Building in the Mountains'* and articles published in 'Architecture + Urbanism' accompanying special issues on Swiss architecture. Jonathan Sergison and Stephen Bates's paper *'Lessons learnt from Peter and Alison Smithson*' has been influential in identifying themes, supplemented by the critical writing of the practices identified (for example, Sergison Bates' '*Papers'* series and Adam Caruso's '*The Feeling of Things')*. Supplementary literature including monographs, academic papers and journals are used to discuss the wider application of the themes.

The key themes drawn from the literature are:

- Abstraction
- Constellation plan
- Volumetric grain
- Material solidity
- Presence
- Quirk
- As found
- Continuity and mediation
- Conglomerate order
- Ways
- Ground notations
- Strategy and detail
- Familiar forms

Each will be discussed in further detail before an operational framework is proposed that supplements Snozzi's approach in Monte Carasso.

11Jonathan Sergison and Stephen Bates, 'Lessons learnt from Peter and Alison Smithson' in Jonathan Sergison and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) p.52.

Fig 6.3. School in Paspels, Valerio Olgiatti. A simple geometric form with a strong resonance with its place Jacques Lucan and Bruno Marchand, A Matter of Art: Contemporary Architecture in Switzerland (Basel: Birkhauser, 2001) p.114.

6.3.1 Abstraction

> *"There is a trend in contemporary architecture to design buildings as simple, lucid, geometric bodies- bodies whose simplicity spotlights shape, material and colour, without relating to any other buildings […] these schemes are characterised by a quest for forceful forms."*[12]

A process of simplification and reduction of form is evident in German-Swiss architecture, described as a search for forceful or strong forms with a sense of presence. Informed in part by the minimalism of Carl Andre, Richard Serra and Max Bill and founded on Rossi's search for the type as a basic and commonly understood underlying principle, simple abstract forms leads to a sense of difference that is grounded in a specific place (fig. 6.5). What is strived for is not a mathematical or geometric simplicity but a building that has a sense of unity and creates an emotional effect, having a "*reductive sense of form, poised between abstraction and familiarity.*"[13]

A belief in the autonomy of the architectural object and its communicative potential can be identified, founded on forms that engage collective meaning and universal understanding. This is supplemented by material and contextual references, taken up to endow new architecture with older associations, for example 'shed-like' or 'stable-like' (fig. 6.4), a lesson from Rossi's search for underlying types. A focus on humble building types reflects a concern for culturally relevant, familiar and ordinary models of building. Removal of detail and formal simplicity leads to new interpretations of these typological models, in which only the most essential elements are preserved. As Davidovici describes,

> *"projects do not merely imitate existing type forms but subject them to degrees of distortion, initiating a friction with convention. This suggests the need for architecture to relate to a recognisable order of reality, yet remain capable of transcending it."*[14]

Formal simplicity aims to have a direct impact and make sense of complicated and confusing realities by appealing to deeper cultural sensibilities. Reduction aims for an evocative architectural effect and a sense of appropriateness; Marcel Meili sees this as "*a defence against the wild proliferation of meaningless and uncontrolled constructive connections.*"[15]

12 Jacques Lucan, *A matter of art: Contemporary architecture in Switzerland* (Basel: Birkhauser, 2001) p.14.
13 Irena Davidovici, *Forms of Practice: German-Swiss architecture 1980-2000* (Zurich: gta Verlag, 2012) p.234.
14 Irena Davidovici, ibid. p.241.
15 Marcel Meili, 'A few remarks concerning Swiss-German architecture', *A+U* 309 (1996) p.25.

Fig 6.4. Hermitage, Oberrealta, Christian Kerez

Fig 6.5. Willman-Lotscher House, Bearth & Deplazes.

Fig 6.6. Craddock Cottages by Stephen Taylor

The Willman-Lotscher House (fig.6.5) by Bearth & Deplazes is a distortion of a typical house form, presenting a distinctly modern identity through its abstraction. A deformed perimeter and use of a single cladding material gives the house a sculptural presence in its landscape. The elongated form creates completely different aspects on its narrow and long sides, changing the perception of the object depending on the angle of view. Use of a single cladding material gives a material unity- in this case vertical timber cladding. Elimination of characteristic details of neighbouring houses, such as overhanging eaves, creates a simplified and formally abstracted reinterpretation of these buildings. Similarly, the School at Vella, also by Bearth & Depalzes (figs. 6.9 and 10), echoes the double-pitched roof of neighbouring houses but eliminates any relief or detail. It is a formally abstract building, achieved through simplification, asymmetric window reveals and a homogenous off white render.

A similar approach to abstraction can be seen in Stephen Taylor Architects Craddock Cottages (fig. 6.6). Abstract, elemental volumes distort an archetypical house form in response to the site. Details are reduced; the roof and wall junction is taut and chimneys with no cowls or flashings.[16]

6.3.2 Constellation

The constellation plan form is characterised by the fracturing of large buildings into interlinked but separate volumes. This reduces the impact of a building, allowing new routes to penetrate between the building elements. This is particularly relevant when working in small towns or villages where a sensitive approach is required. Lucan describes the logic of the constellation plan form as serving as,

> *"a constellation of contrasts, opposites, of analogies and homothetic relationships, of balance and tension, thus engendering multiple associations without any of the individual parts losing their integrity or relative autonomy."*[17]

The constellation considers buildings as living environments, a combination of both aesthetic and functional pragmatic requirements. They have an urban function, as each part of the constellation equally affects the other component parts and the wider city. There is a dialogue between the built elements and the spaces they create between; each element has a character of its own but belongs to a larger composition; each part is affected by and affects the shape, position and form of the others.

The constellation has a role beyond the disintegration of large building masses. They define ways and spaces of movement, pause, encounter and gathering through the relationship

16 Heinz Wirz, *Stephen Taylor Architects* (Luzern: Quart, 2015) p13.
17 Jacques Lucan, ibid. p.14.

Fig 6.7. Wartekhof, Basel by Diener & Diener

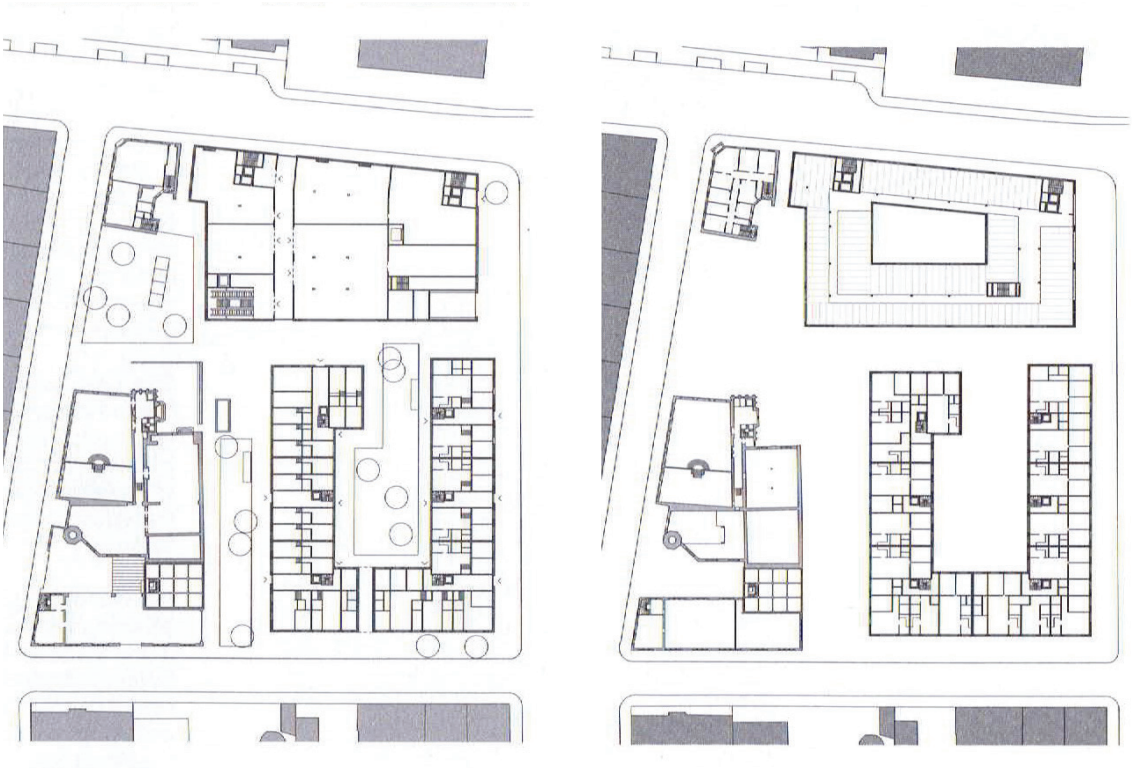


Fig 6.8. Ground and first floor plan: Wartekhof, Basel by Diener & Diener

between solid and void; they delineate inside and outside, considered as interior and exterior rooms; and they orientate and organise openings and entrances toward the ensemble. Beyond the site, they extend and integrate with the pattern of the city.

Diener & Diener's Wartekhof in Basel is an example of a constellation (fig. 6.7). Two existing and two new buildings create an urban block that extends the character of the neighbourhood, mediating between nineteenth century perimeter blocks and more fragmented twentieth century development patterns. Each of the four blocks has its own character, while being identifiable as part of a larger whole through the relationship and positioning between it and the others. Different scales of public space exist between and around the buildings, from private internal courtyards to pedestrian streets to discreet alleys they lead into and through the blocks, creating a network of possible routes through and between the blocks (fig. 6.8). Relationships with the surroundings are developed through subtle adjustment to the forms, using devices usually associated with the picturesque- framed views, layering of volumes, mixing new and old, and subtle breaks from regularity. As Davidovici describes,

> *"These small and tentative gestures, which in another context would seem disconcerting, are highly intentional and raise the plan to the level of aesthetic composition […] rather than being left as some diachronic residues of piecemeal growth, they are brought together in in a synchronic whole. Rather than the product of casualness or pragmatiscm, the new configurations are meant to convey architectural unity."*[18]

Similarly, the constellation approach is identifiable in a school in Vella by Bearth and Deplazes (fig. 6.9 & 6.10).. The school is fragmented into three blocks, framing a central play space between. Pitched roofs link the building into the existing situation, but abstraction and elimination of detail establishes the building as distinctly contemporary. A canopy marking the main entrance links two street-side blocks, with the public space adjusting to the line of the street and the change in height between the street and courtyard within. The larger gymnasium and a classroom block slip past one another, reading as linked but individual elements, reducing the bulk of the building.

6.3.3 Volumetric grain

Linked to the constellation plan form is the idea of volumetric grain. New buildings are embedded into their context through a relationship with the grain and scale of the surroundings, belonging in their place not through direct representation of the context but by

18 Irena Davidovici, ibid. p.143.

Fig 6.9. School in Vella, Bearth & Depazes

Fig 6.10. School in Vella, Bearth & Depazes

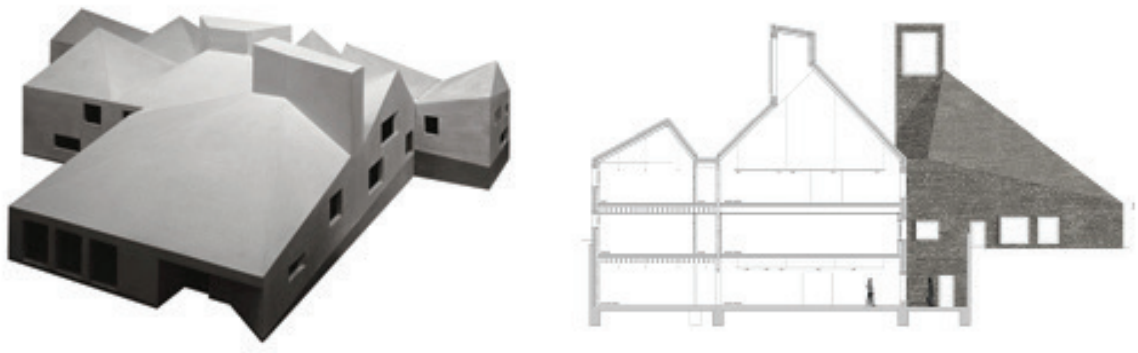


Fig 6.11. Bornholms Cultural History Museum, by Sergison Bates

revealing the site's underlying structure through positioning and effect. As with constellation plan forms, larger volumes are subdivided and fragmented, allowing routes through and around the building and knitting into the scale of the surrounding streets, buildings and public spaces as can be seen in Bearth & Deplazes School in Vella (fig. 6.9 & 6.10).

The competition proposal for Bornholms Cultural History Museum by Sergison Bates (2004; fig. 6.11) provides an intense and abstracted representation of the typical local buildings, organised around courtyards. The spaces are located to allow new routes through and around the building, creating new public spaces that continue the grain of the town. The strong and simple forms, reminiscent of local 'smokehouses', are adjusted according to scale of the surrounding context. Monolithic brickwork wraps the walls and roof in *"an enveloping mass of brick,"*[19] expressed in interconnected vault-like roof forms that reduce the scale of the building and create a grain that relates to the scale of the surrounding streets and buildings.

6.3.4 Presence

Within German-Swiss architecture there can be identified an exploration of building with presence and effect. This aims to evoke sensual or emotional responses from the viewer, revealing what Peter Zumthor calls the "*quiet presence of the work,*"[20], the ability to "*affect people physically and emotionally before they are intellectually aware of what is going on*".[21]

For Sergison Bates and Caruso St John there is a similar search for architecture with physical presence that causes a direct emotion effect. This has parallels with the vernacular, where buildings are not concerned with appearance or formal concepts but have a sense of belonging in their surroundings. Embracing awkwardness, repetition and convention, Caruso St John aim to harness associative memory and direct experience. With a referential attitude to the past, the practice aspires to the formal and material presence found in historic buildings.[22] Similarly, Sergison Bates prioritise the atmospheric quality of spaces and buildings and explore the character and feel of a space through large scale models (fig. 6.13).[23] Through the process, the architects refer to their own experiences of atmospheric character that can be recreated or interpreted. Stephen Bates describes this search for an architecture that can:

> *"express in concrete terms the immaterial aspects of our existence- emotion, memory,*

19 Jonathan Sergison and Stephen Bates, 'Sergison Bates', in 2G 34, 2 (2005) p.107.
20 Peter Zumthor, Thinking Architecture (Basel: Birkhauser, 2006) p.12.
21 Jacques Herzog & Pierre de Meuron, quoted in Irena Davidovici, ibid. p.253.
22 Adam Caruso, 'Traditions' in Adam Caruso, *The feeling of things* ((Barcelona: Ediciones Polígrafa, 2008) pp.22-25. (p.25).
23 Stephen Bates, 'Making Impressions' in Jonathan Sergison and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) pp.107-108.

Fig 6.12. There Vals by Peter Zumthor.

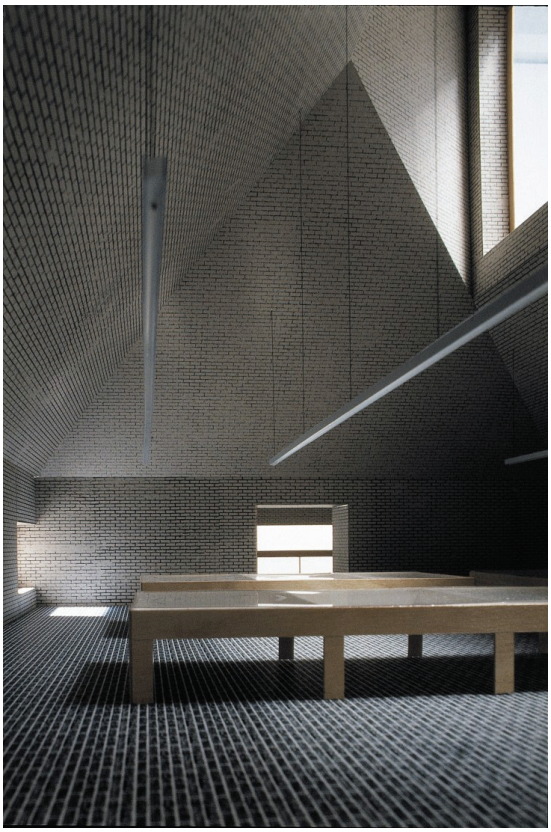


Fig 6.13. Interior model of Bornholms Cultural History Museum by Sergison Bates

Fig 6.14. La Congiunta by Peter Markli.

presence- and it may also recognise the imperfection in daily phenomena. This architecture contributes to an increased atmospheric density of a place and in this there lies an ultimate resistance to the artificial and the virtual."24

The search for presence can be read as a form of resistance to market culture and a statement of the autonomy and self-sufficiency of the object.[25] A tension exists between the reference to site, the familiar and surroundings and the abstract aesthetic object with a presence or effect.

6.3.5 Material solidity

Presence is achieved through a careful balance of form and materiality. In German Swiss architecture, there is a leaning toward a combination of formal simplicity and a reliance on a single material, resulting in a visual intensification of the surface and a '*painterly character*'.[26] This can be seen in projects such as Peter Markli's La Congiunta, Valerio Olgiatti's Yellow House (Das Gelbe Haus) in Flims, and Peter Zumthor's Thermal Baths in Vals (fig. 6.12). The projects tend toward an 'over-all' appearance with direct use of material in a single wrapping creating ambiguity between components. Pamela Self describes the importance of the expression of material for experience; with relation to Peter Markli's La Congiunta gallery in Leventina (fig. 6.14), she describes how "*a single material has direct experiential impact because the processes of making can be expressed"*[27] resulting in a building which *"not only intensifies the perceptual experience, but also heightens the mystery of the forms by reducing indications of scale and use."*[28] Similarly, Martin Tschanz describes this material homogeneity as having a sense of massiveness that *"permits simple direct design"*.[29] He cites vernacular alpine buildings consisting of stone walls and roofs as an example of this, a building form he describes as an influence on Christian Kerez in the design of his monolithic and elemental hermitage in Oberrealta.

A focus on everyday materials such as brick, stone, concrete and timber suggest an appreciation of craft technique and the traditions of building. However, the use of these materials is not undertaken in a traditional manner but is shaped by formal articulation and abstraction. Materials are selected for their physical presence and are used with directness, creating:

24 Stephen Bates & Jonathan Sergison, 'Resistance' in 'Sergison Bates', *2G* 34, 2 (2005) p.133.
25 Irena Davidovici, ibid. p.224.
26 Irena Davidovici, ibid. p.216.
27 Pamela Self, 'Material Presence and the Mystery of the Object', in *Architectural Research Quarterly* 6. 3 (2000), pp.190-192 (p.190).
28 Pamela Self, ibid. p.192.
29 Martin Tschanz, 'Of Mass and Apparent Heaviness' in *Constructing Architecture: Materials, Processes, Structures,* ed. by Andrea Deplazes (Basel: Birkhauser, 2005) pp.255-257.

Fig 6.15. Meuli House, Flasch by Bearth & Deplazes.

> *"Buildings that employ normal construction techniques to extraordinary artistic ends. Work that develops a critical attitude towards building in the contemporary city, neither blind reconstruction of the contemporary city nor a prolongation of post-war indifference, but a true architecture of the everyday."*[30]

The Meuli House in Fläsch by Bearth & Deplazes (1997-2001; fig.6.15) is an example of the use of an 'all over' appearance and direct use of material providing a critique of situation. Located on the edge of a small village amongst a collection of traditional rendered houses and timber barns, the house is a concrete form with recessed punched windows and an asymmetric pitched roof. The irregular form is derived from the positioning of the building against the road (rather than in the centre of its plot), generates an irregular plan form and gives the roofline its asymmetry. Its entirely concrete form is a reinterpretation of the surrounding houses, stripped of detail. All walls are of 500mm thick in situ insulating concrete with the traces of vertical timber board formwork lining retained and celebrated, evoking the memory of the surrounding timber clad houses. An asymmetrical tiled roof with minimal eaves recalls the surrounding roofs, but here is stripped of detail and overhang, creating an abstract, monolithic form on the edge of the village.

In the UK, a recurring theme is the use of brickwork, an ordinary and traditional material that is suited to the UK's temperate climate and affords a degree of tolerance in its construction.[31] Its consistent use across the urban fabric of the UK and in particular in London makes it a familiar, almost background material. As Salter describes,

> *"its construction becomes as if unseen; only its mass, material weathering and context are identified and registered, its form of building used to judge the scale of new additions to the city".*[32]

In the work of Stephen Taylor, brick similarly expresses a way of becoming part of the patchwork fabric of the city and expressing a sense of continuity (fig. 6.18). However, it has an ability to create a presence in the city; brick implies an elemental mass that perhaps many contemporary buildings do not have. Discussing the nature of contemporary layered constructions, Heal describes that:

> *"Construction is usually multi-layered so that only the outside and inside layers are visible and the structure is hidden. The thin claddings and internal finishes follow the*

30 Miroslav Sik, *Now, The Ensemble!* (Zurich: Lars Mueller Publishers GmbH, 2012) p.67.
31 David Grandorge, 'Under the Arches' Architectural Review 235. 1407 (2014) pp.72-79.
32 Peter Salter, 'The Economy of Means' in Jonathan Sergison & Stephen Bates, Sergison Bates Architects, *Brickwork: Thinking and Making*, pp7-11 (p.17).

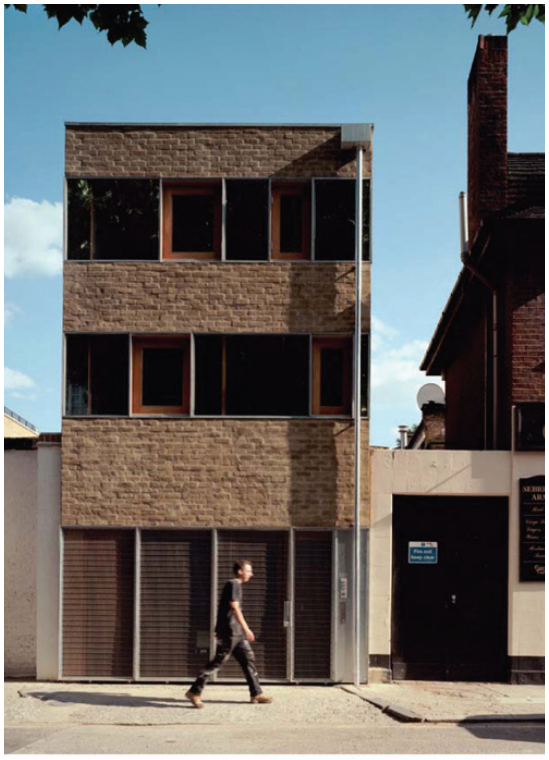


Fig 6.17. Studio House, Hackney by Sergison Bates

Fig 6.16. Craddock Cottages by Stephen Taylor.

Fig 6.18. A grid of perpend ventilation gaps pepper the brick facade: Urban Housing, Hackney by Sergison Bates

Fig 6.19. Urban Housing, Hackney by Sergison Bates

> *latest fashions, to be replaced when they become dated and worn. In this sense, iconic buildings are superficial, as priority is given to surface image over tectonic clarity. The heaviness, mass, presence and timelessness of the traditional is exchanged for the light, transparent and fast."*[33]

In contrast, brick carries a material weight and solidity. The method of construction is clearly visible and allows the visitor to understand how a building was made- expressing a direct form of construction. It creates a sense of colour and texture, and its surface can be manipulated; in as Sergison Bates' Studio Housing in Hackney (fig.6.17), the brick is finished in a layer of slurry, blurring the definition of brick and mortar while maintaining the texture of brickwork.

A simple, natural expression of materials and their properties that requires no further decoration or embellishment can be seen as an important aim of Swiss-German architecture; materials are not concealed or layered unnecessarily but are used for their direct experiential effect. However, striving for formal simplicity and direct experience of materials often requires application of advanced constructional means to reach this goal. As Christian Schittich describes,

> *"the formal simplicity resulting from aesthetic endeavours is rarely also really simple in a technical or economic sense, however. The perfectly reduced form can often only be attained with greater effort. This effort can manifest itself in more extensive design work, but also in an enormous amount of work on hidden details, as is often found beneath the smooth outer surface of a multi-layered wall construction."*[34]

This attention to detail can be seen in both the work of architects in German-Swiss architecture and in the UK. However, perhaps through regulatory demands or technical limitations, the sense of presence and material solidity in some cases is only skin-deep, a visual effect. Salter attributes this to the additional demands of warranties, regulation, production methods and precision required in the contemporary built environment.[35] An example of this is Sergison Bates' Urban Housing in Hackney (1999-2002; figs. 6.18 and 6.19), where an apparently formal and weighty brick building relating to its context is, on closer inspection, revealed to be constructed from a timber frame with brick cladding. However, rather than disguising this, the architects have made this explicit through a grid of perpend ventilation gaps in the cladding that increase ventilation of the timber frame.

33 Amanda Heal, *Building Simply: An Investigation Into The Potential For Building Simply In The UK* (unpublished MPhil thesis, 2010) p.16.
34 Christian Schittich, 'Building Simply', in *Building Simply,* ed. by Christian Schittich (Switzerland: Birkhäuser, 2005), p.9.
35 Peter Salter, 'The Economy Of Means' in Jonathan Sergion & Stephen Bates, *Brick-work, Thinking and Making* (Zurich: ETH Zurich, 2005) pp.7-11 (p.8).

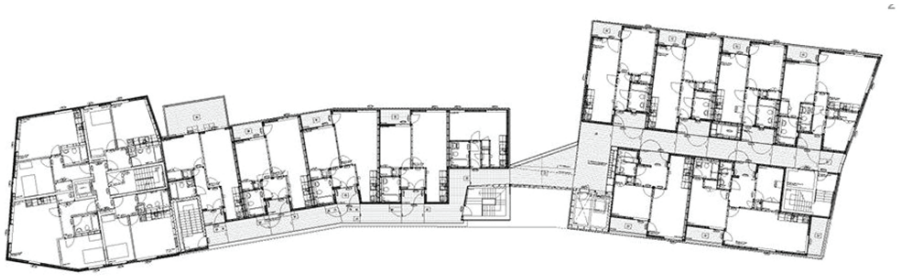


Fig 6.20. Mixed use building, Wandsworth by Sergison Bates

Fig 6.21. Nottingham Contemporary, Caruso St John

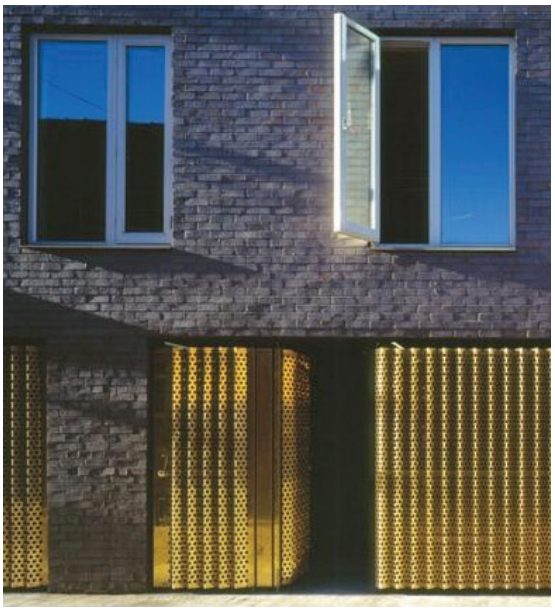


Fig 6.22. Chance Street, Stephen Taylor Architects

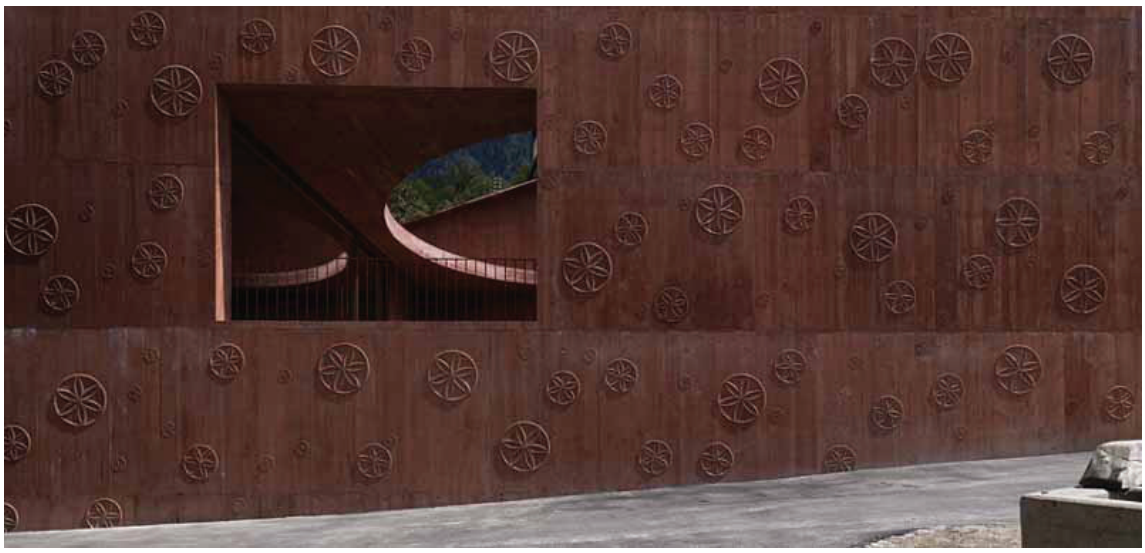


Fig 6.23. Musician's House, Valerio Olgiatti

6.3.6 Quirk

The notion of quirk embodies two ideas: first, the particularity of a building form derived from manipulation in response to as found conditions; and secondly the effect of chance and the individual on a proposal. It embodies a spirit of eventful irregularities, where peculiarities are celebrated rather than concealed. Gestures are not arbitrary, but are accepted where they respond to given conditions or desires, such as patterns of material and weathering, inhabitation, regulations or site constraints.

Sergison Bates Architects Wandsworth Housing (fig.6.20) is tolerant of the irregular shape of its site as found. A short tower at the head of the building derives its form from the decision to build up to the irregular site boundary. The resulting irregular plan form contrasts with an orthogonal internal arrangement, creating subtle shifts and changes between each apartment.[36]

At Caruso St John's Nottingham Contemporary Gallery (fig.2.22), the irregular plan form is similarly derived from building to the perimeter of the site. A forceful exterior of precast coffered concrete panels are imprinted with a lace pattern, a reference to the history of lace making in Nottingham that is abstracted and reinterpreted. At Chance Street by Stephen Taylor (fig. 6.23), perforated and concertinaed brass screens identify the entrance to the house and screen an entrance porch. Ornament is here used to draw attention to and make legible an important moment; quirk is used to a communicative end to celebrate an incident, such as the front door.

While in English realism quirks are derived from the site as found or interpretation of the history of place, in Swiss-German architecture the designer can be seen to introduce the quirk. Valerio Olgiatti's Musician's House in Scharans (fig.6.25) is a monolithic red-dyed concrete form with hundreds of rosettes cast into the concrete walls. These are derived from local furniture makers marks, enlarged and repeated across the façade in a seemingly random arrangement. Chiselled by hand into the spruce formwork, the somewhat naïve marks reflect the rural and cultural context of the building but are transformed into an expressive act through their repetition and scale.[37]

6.3.7 Continuity & mediation

As has been seen, German- Swiss architecture abstracts and reduces the familiar and recognisable to present a reinterpretation of the existing condition. Architecture is seen as a

36 Jonathan Sergison & Stephen Bates, *Papers 3* (Lucerne: Quart, 2016) p.101.
37 Valerio Olgiati, *Olgiati: A lecture by Valerio Olgiati* (Basel: Birkhauser, 2011) p.30-32.

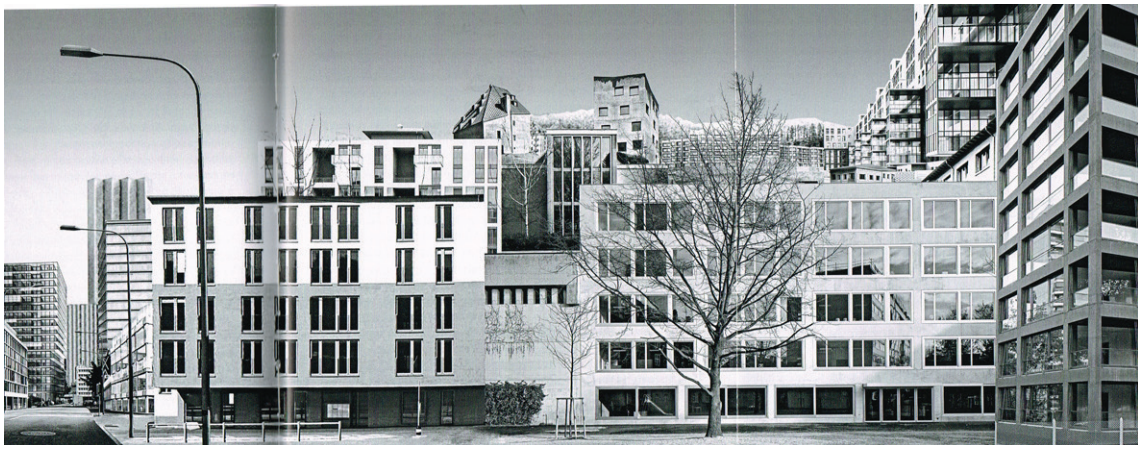


Fig 6.25. The architecture of the ensemble. Composite collage image exhibited at the Venice Biennale.

Fig 6.24. The architecture of the ensemble. Composite collage image exhibited at the Venice Biennale.

means of preparing a situation for change and presenting alternatives to the existing situation. In German-Swiss architecture, form and material abstractions are placed in relation to the specifics of a site, with the aim of revealing the organisational structure through positioning and effect. Architecture is seen as having the ability to adapt and re-order its surroundings. A balance is sought between local appropriateness and universal appeal. Miroslav Sik has termed this the architecture of the ensemble (figs. 6.25 & 6.26).[38] Between contrast and holistic form, the ensemble refers to history but also is aware of its own time:

> *"designing an ensemble means choosing from the variety of a setting a few characteristic allusions, emulating them, and at the same time mixing them with other architectures that may be alien to the particular setting. An additional alienation of the images through unexpected- indeed odd looking- details ensures that, in lieu of a blatant collage-like hybrid, an analogy comes about in which the references fuse to create a new unity. The appropriateness of the selected architecture is dictated not by a fashionable style but by the milieu of its use, images and functions."*[39]

This way of thinking about the city has been discussed by Peter Rowe, who describes a critically contextual approach to design:

> *"Critically contextual projects must present palpable alternatives to existing situations and in a manner that makes an unambiguous link between both the existing problems and the new opportunities."*[40]

For Rowe, a critical contextual attitude has an appreciation of the need for change at local and urban level and, like the 'as found', is not a simple acceptance of an existing context. It has continuity with the past but remains open to the future, allowing an evolution of a new direction for a place, development of tradition and an acceptance of change. In this way, architecture can mediate between past and future, offering a direct linkage to the existing and prepare it for transformation. A comparable approach can be found in the work of Sergison Bates, who describe mediation as a critical aspect of their work:

> *"Many of our projects attempt to mediate with what exists already in a place and offer an open-endedness which often prompts unplanned relationships to be developed between the object and the place."*[41]

38 Miroslav Sik *Now, the ensemble!* (Zurich: Lars Mueller Publishers GmbH, 2012).
39 Miroslav Sik *Now, the ensemble!* (Zurich: Lars Mueller Publishers GmbH, 2012) p.54.
40 Peter Rowe, *Modernity and housing* (Cambridge, Mass: MIT Press, 1993) p.335.
41 Stephen Bates, 'Brickwork: Familiarity and form-making', in Jonathan Sergison & Stephen Bates, *Brick-work, Thinking and Making* (Zurich: ETH Zurich, 2005) pp.19-31 (p.19).

Sergison Bates' Urban Housing in Hackney (1999-2002) mediates between a Georgian terrace, a 1970's housing development opposite the site and a future condition. The simple form aims to add to the existing structure of the city and make its as found character more particular. The brick volume references the neighbouring terrace with a low band of white brickwork at ground floor below two storeys of black-brown engineering brick. The new building is stripped of all detail and classical proportions, with windows located according to need. Other forms and materials reference the more recent building opposite and as such the building acts as a mediator between the different elements of the city.

6.3.8 As found

The core principle of the 'as found' is an acceptance of the value of the familiar and the everyday. It is an acknowledgement of the physical and emotive aspects of a place, and an ability to make interpretations of these conditions in a process of adding new layers that extend and adjust a given situation, critically interpreting a place. The aim of the architecture is to create a backdrop for life, based on the conditions found in a place. As Segison Bates describe, by:

> *"engaging with what is around us we are able to make representations of the specific and universal conditions we observe. These observations generate the development of new objects, which affect a transformation of the existing condition and offer a new potential to it. Through the rigorous transformation of seemingly modest conditions, therefore, something special and elevated is added to the here and now. In this there is a certain tolerance, not only in the acceptance of the existing as legitimate but also in the willingness to identify the everyday as the basis of the study."*[42]

Thomas Schrengenberger similarly sees the 'as found' as a tendency to engage with the existing situation, to follow its traces to determine new insights and new forms. This engagement does not limit itself to the site alone, but extends beyond its boundaries; it is engaged with what has gone before it: the palimpsest of a site and a city. As Alison and Peter Smithson describe, it explores:

> *"Not only the adjacent buildings but all those marks that constitute remembrances in a place that are to be read through finding out how the existing built fabric of the place had come to be as it was."*[43]

42 Jonathan Sergison and Stephen Bates, *Papers* (London: Sergison Bates Architects, 2001) p.16.
43 Alison and Peter Smithson, 'The as found and the found', in *The independent group: Post-war Britain and the aesthetics of plenty*, ed. by David Robbins (Cambridge, Mass; London: MIT Press, 1990) p.200.

Fig 6.26. Upper Lawn Pavilion, Alison & Peter Smithson.

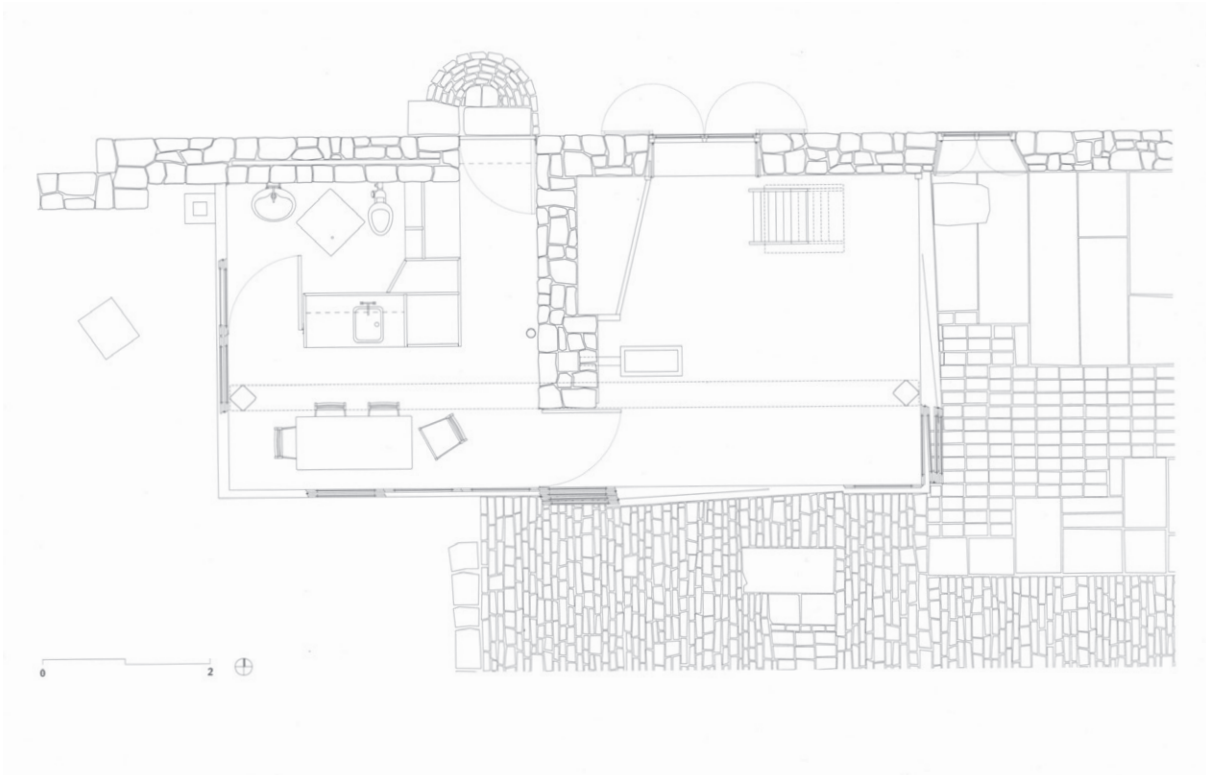


Fig 6.27. Plan of the Upper Lawn Pavilion, Alison & Peter Smithson.

The Smithson's define the 'as found' and the 'found' as, "*the as found, where the art is in the picking up, turning over, and putting with, and the found, where the art is in the process and the watchful eye.*"[44] This brings about a new seeing of the existing and ordinary and an openness to how the everyday may energise a design process. As the Smithsons Team 10 colleague De Carlo explains, this requires a careful reading of the site and context, which "*must be treated as one of the components of the design process and not as a neutral survey.*"[45] Only through a thorough understanding of the existing and its peculiarities can a new layer be designed that will reinforce and not negate the value of what has gone before. As an approach to design it relies on the 'second glance', a concern for what already exists, an approach Schrengenberger describes as "*a passion for the task of making something from something, rather than pretending to make something from nothing.*"[46] It is dialogic, establishing a "communicative relationship with the situation."[47]

The as found is a dialectic relationship, where as the interpretation of as found conditions informs the ideas of the architects, which is in turn affected by their ideas. This approach is described in the essay '*Somewhere between ideas and places*', which suggests a starting point for engagement with what is found:

> *"we have been concerned with the here and now, with the real and the ordinary. It has led to the manipulation of familiar images and forms in order to engage with the forces of association which we all hold within us."*[48]

The design of the Upper Lawn Pavilion (1962; figs. 6.26 & 6.27) demonstrates the Smithson's approach to the as found. The existing walled garden was subject to a careful analysis, layer by layer, with a careful sifting of elements and the incorporation of existing features into the design of the house and its garden. As found parts are combined with new elements to create a new order, resulting in an ensemble that emerges from a respect for the existing condition of the site and wider landscape. An existing chimney, formerly on the gable end of the demolished cottage, becomes the centre of the house. A timber framed pavilion hangs over the existing garden wall. The original floor is preserved as found in the new garden, while the foundation wall of another demolished building is grassed-over, preserving its memory but reinterpreting it as part of a children's play landscape. Similarly, existing planting is maintained but "trimmed in

44 Alison and Peter Smithson, ibid. p.200
45 Giancarlo de Carlo, quoted in *Modernism without Rhetoric,* ed. by Helena Webster (London: Academy, 1997) p.99.
46 Thomas Schregenberger, 'As found', in *Architecture is not made with the brain: The labour of Alison and Peter Smithson* (London: Architectural Association, 2005) p.81.
47 Adam Caruso, *Gardens of Experience* (Amsterdam: Sun Architecture, 2010) p.55.
48 Jonathan Sergison and Stephen Bates, 'Somewhere between ideas and places' in Jonathan Sergison and Stephen Bates, *Papers* (London: Sergison Bates Architects, 2001) p.2-3.

Fig 6.28. Studio House, Caruso St John: House in context.

Fig 6.29. Studio House: Front facade.

Fig 6.30. Studio House, Caruso St John: Internal view showing careful treatment of as found.

figural form."[49] The references to the existing as found site are multi layered and implicit in the project, rather than being overtly expressed.

Caruso St John's Studio House (1993-4; figs. 6.28-6.30) similarly expresses a carefulness to as found conditions and has a grounded presence, embedded into the patterns of everyday life. The house was made within the shell of a two-storey warehouse on a London mews. The existing building was retained with the new insertions adding new layers to the as found condition. Materials and linings were used in their raw state, analogous to the retained layers of paint and rough brick of the existing building. Alterations to the fabric are carefully considered; a new light well is cut into the rear of the plan with a roof light above, dropping light to the kitchen. A façade of insulating glass is clamped over the window openings at the front of the house, an obvious addition to the existing situation. The project is non-heroic and ordinary on the outside but rich within. It is part of the city, an extension of the existing fabric; a representation and reconfiguration the existing and the known.[50]

6.3.9 Conglomerate order

> *"The ordering of built fabrics by devices experienced beyond the visual… the ways of conglomerate ordering."51*

Through the idea of conglomerate ordering, the Smithson's sought a series of criteria to allow architecture to respond to the complexity and specificity of its location and its programme. It arose during ILAUD[52] from the study of natural or vernacular fabrics such as Santa Maria Della Scala and La Grancia di Cuna (fig. 6.31) and was concerned with the identification of essential qualities and ordering devices that could be transposed without resort to stylistic imitation.[53]

Describing conglomerate ordering in '*Italian Thoughts*', the Smithson's explained an approach that was informal and inclusive in organisation, but simultaneously easy to navigate and recognise. It has a spatial presence that cannot be described through reduction to two-dimensional images and can absorb additions and change over time without disturbing the

49 Bruno Krucker, 'Complex Ordinariness: The Upper Lawn Pavilion by Alison & Peter Smithson' in *Daidalos*, 75.5 (2000) p.47.
50 Aurora Fernández Per, *As Built: Caruso St John architects* (Vitoria-Gasteiz: a+t, 2005) p.21.
51 Alison & Peter Smithson, *Italian Thoughts* (Place of publication not identified: Publisher not identified, 1993) p103.
52 International Laboratory of Architecture and Urban Design (ILAUD), a design seminar coordinated by Giancarlo de Carlo.
53 Fouad Samara, 'Toujours vers une architecture. Alison and Peter Smithson's School of Architecture and Civil Engineering at the University of Bath- an essay in conglomerate ordering', in *Modernism Without Rhetoric,* edited by Helena Webster (London: Academy, 1997) p.141.

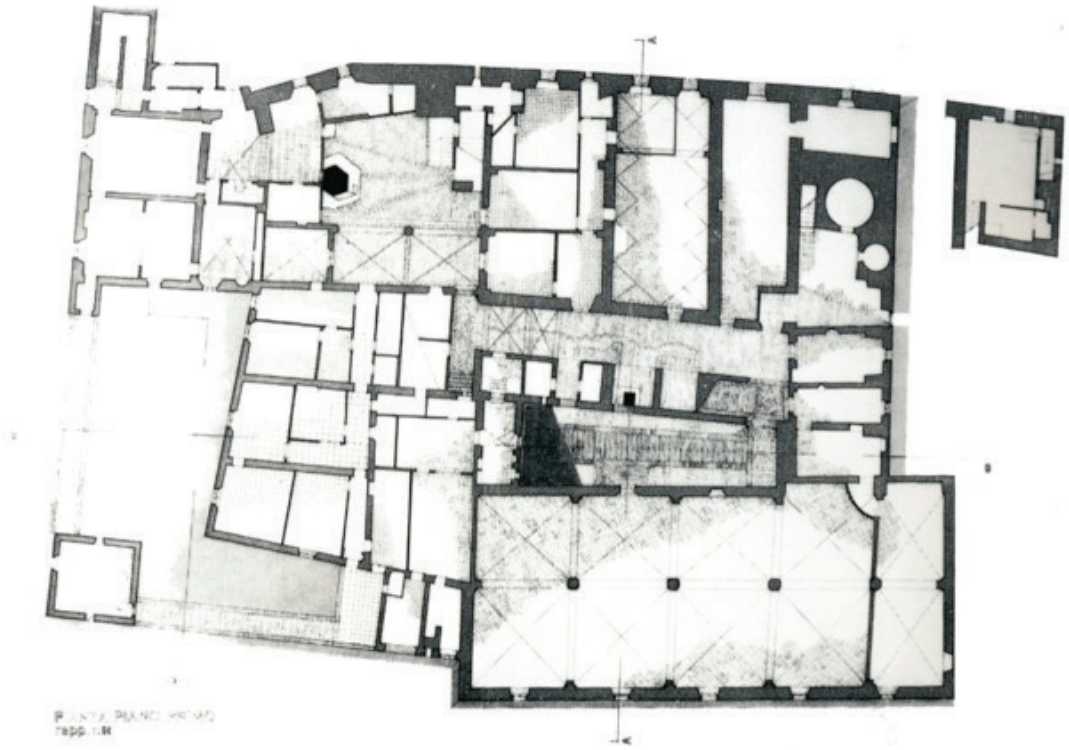


Fig 6.31. La Grancia di Cuna in Val d'Arbia, a building described by the Smithsons as having a conglomerate order.

sense of order.[54] Conglomerate ordering should provide a range of physical conditions in order to allow future occupation in a variety of ways- for example, internal and external spaces, and exposure to nature and the elements. It has variable density in plan and section. Stephen Bates describes the material approach found in conglomerate ordered buildings as "*single entities composed of many elements and fragments unified by a material wholeness*"[55] and cites the 'all-over' material solidity of Swiss practices such as Gigon & Guyer as examples of this approach.

With parallels to continuity and mediation and the as found, conglomerate ordering sees buildings as an inextricable part of a larger fabric.[56] The concept of topology or territory is embedded in the approach, where buildings are designed as part of a larger whole in both space and time. Affected by both modernisation and our experience of being in the world, projects have to negotiate these contradicting forces to bring a new found order that is found in situ to the place, by: *"picking up existing elements, turning them over and relating them to the requirements of the assignment, ordering them along the lines of movement and access, and ordering those lines along the topology in question."*[57] The aim is to create an architecture informed by the peculiarities of place while maintaining its autonomy.

6.3.10 Janus Face

Janus-faced buildings reflect and connect the different conditions around them. The origins are found in the Smithson's '*Italian Thoughts*' in a concern for the relationship between inside and outside and between the different faces of a building. In the same way as inside and outside surfaces respond to different conditions, so too can the different faces of a building, becoming multi-faceted or 'Janus-like'.[58] This can be achieved through different scales, formal approaches, materials or construction types. As the approach considers each face of the building equally, buildings do not necessarily have an obvious front or back. Janus face has parallels to a consideration of volumetric grain and constellation plans, where buildings look beyond their site and engage with the wider context in form, mass and organisation.

Janus face extends beyond the massing and façade treatment of a building to consider the relationships between buildings and the spaces between as well as between inside and outside.

54 Alison Smithson and Peter Smithson, *Italian thoughts* (Sweden: S.N., 1993) p.60.
55 Stephen Bates, 'Brickwork: Familiarity and form-making', in Jonathan Sergison & Stephen Bates, *Brick-work, Thinking and Making* (Zurich: ETH Zurich, 2005) pp.19-31 (p.30).
56 Alison & Peter Smithson, ibid. p.62.
57 Dirk van den Heuvel, 'Une dynamique generative', *Architecture d'audjourd hui* 344.1 (2003) p.36.
58 Jonathan Sergison and Stephen Bates, 'Lessons learnt from Peter and Alison Smithson' in Jonathan Sergison and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) pp.48-57 (p.52).

Fig 6.32. Public House, Wallsall by Sergison Bates: The asymmetric form of the public house.

Fig 6.33. Public House, Wallsall by Sergison Bates: The waterfront is heavily glazed with a low eaves.

Threshold treatments manipulate the journey across the face, while views and framing support or exclude relationships between in and out, near and far. Expressions of connection rather than confrontation are sought, reinforcing the grain and scale of the existing fabric.

The Upper Lawn Pavilion designed by the Smithsons and discussed above is a 'janus faced' building. Straddling an existing wall, the building engages with the immediate outside context of lawn and garden through a glazed ground floor façade, focusing attention on the walled garden; minimal penetrations through the existing wall frame the abbey hills. Upstairs, the building becomes a lookout over the Wiltshire landscape. The building links to surrounding ways around the site but also controls them, appearing like a gatehouse with a stone threshold between in and out.

The public house in Walsall (1996-98; figs. 6.32 & 6.33) by Sergison Bates (in collaboration with Caruso St John) clearly explored the opposing forces of a site. The shed-like appearance of the building references the surrounding industrial units and warehouses. The oversized roof is adjusted according to the footprint of the site, relating it directly to its context. Each elevation responds to its immediate context; facing the canal and new public spaces, the building is more open with large windows, while those facing the street and car park are more closed. The simple geometric form of the building inflects and adjusts to these conditions.

6.3.11 Ways

The Smithson's identified the importance of roads and pathways in the urban realm as a 'fix' in the city with long cycles of change, making them a key part of the urban structure.[59] Beyond facilitating transport and movement, connective systems can create coherence in a town and offer potential to be catalysts for regeneration. Ways are seen as an integral ordering system underlying much of the Smithson's work, as they describe:

> *"We seem to have used Ways as an ordering device from the very beginning, and, in the last ten years, Ways have played a crucial role in the emergence of conglomerate ordering."*[60]

Ways are one of many layers that combine to create a conglomerate order; sometimes they are discreet and subtle, while at other times they are the main ordering system for a building providing a spine for a variety of spaces and uses. At the 6 East Building at Bath University by

59 Alison & Peter Smithson, The Charged Void: Urbanism (New York: Monacelli, 2005) p.104.
60 Alison & Peter Smithson, quoted in Jonathan Sergison and Peter Bates, 'Lessons learnt from Peter and Alison Smithson' in Jonathan Sergison and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) pp.48-53 (p.51).

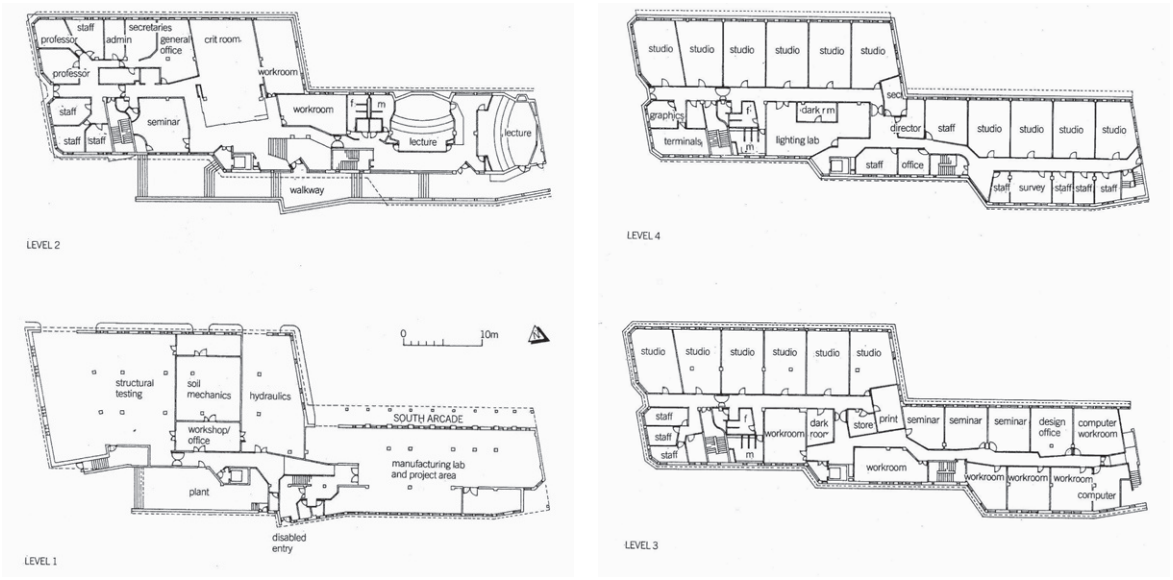


Fig 6.34. 6 East Building, University of Bath by Alison & Peter Smithson.

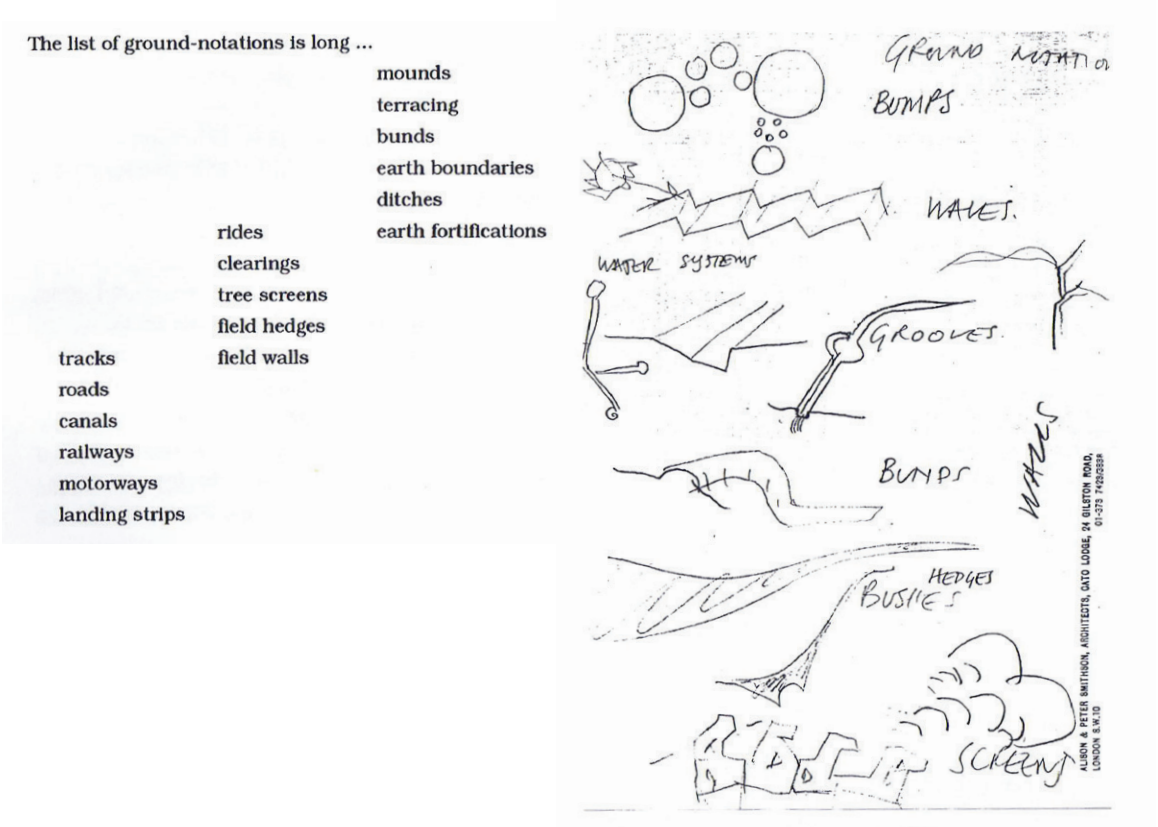


Fig 6.35. The lexicon of ground notations illustrated by Alison & Peter Smithson.

the Smithsons (1982-88; fig. 6.34) ways organise the circulation of the building. The building links into the existing routes around the campus, in particular connecting to routes from arrival points to the university. The east façade is inflected to create a sense of welcome and a stair links the parade to a raised piazza. An internal street forms the spine of the building, described by Alison Smithson as,

> *"…an ordering of the building so that those means of finding one's way, of sensing what lies where, are taken from the old indicators… the position of the sun, the way the land falls outside seen from the principal ways inside."*[61]

The ways were seen as the permanent core of the building that shaped the surrounding more flexible spaces. At strategic nodes, places were created to allow personal inhabitation, for example at the intersection of ways and the beginning and end of routes.

6.3.12 Ground notations

Ground notations are structuring devices that aim to reveal earlier patterns. They are perceived as having varying levels of persistence, from long lasting (roads, waterways), to temporary and short term (crop planting). They show a concern for the fine lines of reality, margins and borders and reveal the joints between separate parts of a place (fig. 6.35).[62]

At the building scale, ground notations are evident in Sergison Bates' early projects. The house and dairy in Dorset reinstates a series of levels that relate the building to the surrounding landscape, road and existing building; at a mixed use scheme in Wandsworth (fig.6.34), the form of the building is a result of the location of the neighbouring river and road, while a new insertion between the two existing buildings creates a new entrance; in the semi-detached houses in Stevenage, the memory of familiar layouts and forms of housing are reinterpreted. At a larger scale, the urban proposal developed by Sergison Bates and East Architects for Sittingborne in Kent (fig. 6.36) identifies a series of existing ground notations that are extended and reinterpreted. An existing network of earth bunds, designed to drain water from the low lying marshland, was extended and remodelled into a series of 'bundways' with roads on top of service conduits.[63] Public buildings were placed on these bunds, while between the bunds fields

61 Alison Smithson, quoted in Fouad Samara, 'Toujours vers une architecture. Alison and Peter Smithson's School of Architecture and Civil Engineering at the University of Bath- an essay in conglomerate ordering', in *Modernism Without Rhetoric ed.* by Helena Webster (London: Academy, 1997) p.141.
62 Jonathan Sergison and Peter Bates, 'Lessons learnt from Peter and Alison Smithson' in Jonathan Sergison and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) pp.48-57 (p.52).
63 Jonathan Sergison & Stephen Bates, 'Lessons learnt from Alison and Peter Smithson,' in Jonathan Sergison & Stephen Bates, *Papers 2 (*Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) pp.48-57 (p.49).

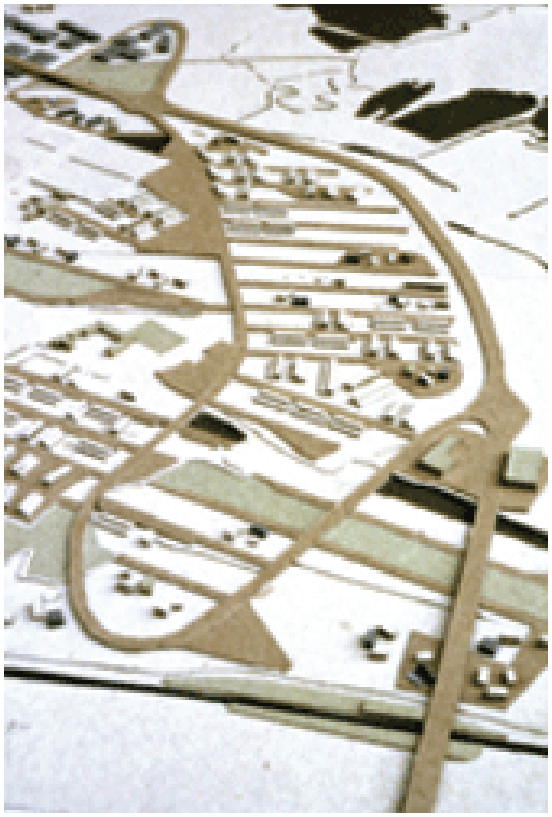


Fig 6.36. The masterpan for Sittingborne, Kent, by Sergison Bates extends a language of earth bunds to create service spines through the settlement.

for new development were identified.

6.3.13 Strategy & Detail

Strategy and detail is a design method encouraging consideration of the wider context, the emotional feeling of the proposed building and how it is realised in detail. It entails working simultaneously at different and contrasting scales; from the settlement scale to mediate between building and surroundings, detail level to explore thresholds and details, and a scale between to mediate between these two extremes. Peter Salter describes this approach in the Smithson's office:

> *"The year long working drawing program for the Second Arts Building at Bath necessitated the forming of rules, not only to maintain the consistency and quietness of detail but to establish an investigation for understanding the spaces of the building. Strategic plans at a scale of 1:200 were the first drawings, closely followed by detail fragments of the building drawn at 1:25 scale and full size. Probably the last drawings to be made where the 1:100 assembly plans. There was a constant trawling for information, back and forth between strategy and detail."*[64]

Strategy and detail aims to simultaneously describe the idea behind a project and at a larger scale how a building is put together. Combination of details and strategic diagrams as part of the same drawing allows thought about the relationship between the resolution of a detail and the hierarchy and quality of space created.[65] The building scale drawing is often the last last to be produced:

> *"With many of the Smithson's buildings, assembly drawings at a scale of 1:100 were the last drawings to be made in the set of production drawings. These drawings brought together the strategic diagram with the detail. It was here that the judgement of weighting and proportion could be read and adjusted as necessary."*[66]

Sergison Bates describe a working method that uses models and sketches to explore building form before the feeling of the project- its presence and construction language- are discussed. Detail is explored through large-scale drawings, aiming to capture atmosphere through detailed material observation and examination.

64 Peter Salter, 'On the Making of Detail', in Peter Smithson and Alison Smithson, *Climate Register* (London: Architectural Association, 1994) pp.12-13. (p.12).
65 Peter Salter, 'Strategy and Detail', in *Alison & Peter Smithson: A critical anthology,* ed. by Max Risselada (Barcelona: Poligrafa, 2012), pp324-333 (p.327).
66 Peter Salter, ibid. p.325.

Fig 6.37. Semi detached houses, Stevenage by Sergison Bates

6.3.14 Familiar forms

> *"Our interest lies in working with the familiar appearance of things; not only what things look like, but also how it might be understood against building forms that are deeply familiar, as part of our collective memory… the convention of type."*[67]

Both the architects in the Graubunden and the UK describe the importance of images in engaging a personal and collective association between images and buildings. The reference to images allows an understanding of appearance and character, generating an emotional response. Meili describes this approach in German-Swiss architecture:

> *"We seek a kind of authenticity of usage […] in the process of sedimentation of meanings into forms, such as results through the incessant repetition of everyday use […] our incursions into the world of the ordinary and the everyday constitute a search for collective meanings."*[68]

Meili describes a search for common and recognisable patterns and forms that emerge through engagement with a specific location. It concerns the engagement of architecture with lived life; similarly, for Sergison Bates, the everyday is at the heart of the search for familiar forms. Simple and recognisable forms are influenced and shaped by the forces of a particular place in a dialogic exchange. The familiar is explored through representation of a visually recognisable motif (for example, the pitched roof or semi-detached house), but with reduced detailing and minimal expression. Distorted and abstracted forms undermine the autonomy of the architectural object and allow connections to be made to the surroundings.[69] The use of archetypical forms aims to engage the viewer through association. In more recent projects, this has evolved into the search for a direct emotional engagement with space and material, characterised by the singular use of material and abstract forms.

The semi-detached house project in Stevenage by Sergison Bates (1998-1999) references the typical 1930s semi-detached house (fig. 6.37). This recognisable image of 'home' has become associated with domesticity and has a value in cultural memory. The pair of houses appears as 'house-like'; two adjoined pitched roof forms suggest two occupancies, further given a sense of individuality by different coloured tiling. The angled plan creates two distinct faces to the building; an expansive rear façade and a more formal front, with entrances are placed side

67 Jonathan Sergison and Stephen Bates *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) p.59.
68 Marcel Meili, translated from German and quoted in Irena Davidovici, *Forms of Practice: German-Swiss architecture 1980-2000* (Zurich: GTA Verlag, 2012) p.239.
69 Stephen Bates, 'Brickwork: Familiarity and form-making', in Jonathan Sergison & Stephen Bates, *Brick-work, Thinking and Making* (Zurich: ETH Zurich, 2005) pp.19-31 (p.19).

by side to encourage community between the occupiers. Window placement is loose and at the service of the spaces within rather than a formal or compositional logic. Deep reveals are created by the oversized wall thickness; these openings suggest a link to the deep-set revels of vernacular buildings.

6.4 Conclusion: The draft operational framework

In this chapter, Snozzi's approach in Monte Carasso has been critiqued and his approach extended through exploration of recent German-Swiss architecture and English Realism in an attempt to define an operational framework for design in UK market towns.

The architects identified in the literature strive to present a critique of prevalent conditions and have an ethical dimension to their practice. Integrity is an overriding concern, as Jacques Lucan suggests:

> *"The objective is not just to make decent buildings. It's more than that. Designing a scheme nowadays means taking a stance with respect to what we believe architecture to be. It's a commitment."*[70]

A similar integrity is evident in the practices of Sergison Bates and Caruso St John, where the act of resistance through questioning global forces and the trajectory of the construction industry emerge. In both built and written work, these practices exhibit a rigorous approach that combines formal concerns for the ordinary and everyday with a strong sense of constructional and tectonic logic. This questioning of the status quo parallels Snozzi's architectural approach; however, while Snozzi's response was to revisit modernism in a confrontational architectural language, in the Graubunden and in English realism a more mediatory response is developed where buildings critically interpret the form, mass, material and scale of their context.

The draft operational framework combines the lessons of Monte Carasso with themes drawn from the literature examined in this chapter. It is designed as a two tiered matrix. A settlement level of the framework draws out the four themes of urban placemaking from Monte Carasso. These are to be tested at the scale of the town to highlight strengths, weaknesses and opportunities in the urban fabric. A second tier is seen as applicable once a site has been identified.

This 'design' level is subdivided into four themes, as shown in figure 6.38:

70 Jacques Lucan, *A matter of art: Contemporary architecture in Switzerland* (Basel: Birkhauser, 2001) p.9.

SETTLEMENT			
Defining a centre	**Consolidate and densify**	**Boundary and edge**	**Connections**

DESIGN			
SITE	ORGANISATION	FORM	LANGUAGE
As Found	**Constellation**	**Abstracted form**	**Material solidity**
Janus face	**Volumetric grain**	**Continuity/Mediation**	**“Quirk”**
Ways	**Conglomerate ordering**	**Familiar**	**Presence**
Ground notation	**Strategy & detail**		

Fig 6.38. The operational framework to be tested in Ludlow.

- **Site:** Analysis of a site as found, its underlying structures, surrounding and links
- **Organisation:** Massing and arrangement of building elements
- **Form**: Relationship to and abstraction of the surrounding forms
- **Language:** Exploration of material and detail

In the next chapter, the draft operational framework will be tested in a first design study in Ludlow. It will be used as a tool through which both analysis and design will be carried out, and as a filter through which critical reflection on the design proposals will be presented.

Fig 7.1. Ludlow: Castle Square on market day

7.0 DESIGN STUDY 1 : LUDLOW

7.1.1 Introduction

In this chapter, the framework described in chapter six is tested through a design case study. This aims to interrogate the principles and organisation of the framework and assess the viability of applying the framework in a UK market town setting. This will be assessed thorough the critical appraisal of two design projects, located on sites identified through a mapping process derived from Snozzi's approach to Monte Carasso.

Ludlow, a town with a population of 11,000 located in Shropshire, UK, has been selected as the location for the first design study. The town is recognised as a quintessential English market town, described by John Betjeman as *"the loveliest town in England"*[1] (fig. 7.1). Founded during the early medieval period, it has all the characteristics of the historic market town identified in chapter 2 and contains nearly 500 listed buildings, predominantly of the Georgian and medieval periods.[2] The selection of a well known and much loved town aims to test the operational framework in a sensitive context with a well constituted urban fabric; assessing its success in a seemingly well defined and tight knit town aims to ensure transferability to more fragmented or disparate settings.

The study has a number of methodological constraints. It has been carried out without the involvement of local people, statutory bodies or a design team. In reality any proposals in a town such as Ludlow will be complex and will require consideration of conservation areas, planning policy, building regulations and strategic development plans. However, the aim of the study is to test the applicability for the framework and the process of design rather than to deliver a realisable output. As discussed in the methodology, the study is formal and spatial rather than political, social or economic, but the design studies address issues that have wider implications for the future of the town and its residents.

Initially, the mapping process will be discussed before two design studies are presented: Raven Lane, an infill site in the historic town, and Ludlow Food Centre, a public building located on the edge of the historic town. These sites have been derived from the mapping process and chosen for study as between them they address all four of Snozzi's principles of defining a centre, boundary & edge, consolidate and densify, and connections. The mapping and design

1 Graham Nielson, *Ludlow: The Loveliest Town in England?* (London: Open University, 2011) <http://www.open.edu/openlearn/society/politics-policy-people/sociology/ludlow-the-loveliest-town-england> [accessed 24 June 2016].
2 Ludlow Visitor Information Service, *The Ludlow Website* <http://www.ludlow.org.uk/architecture_buildings.html> [accessed 3 September 2015].

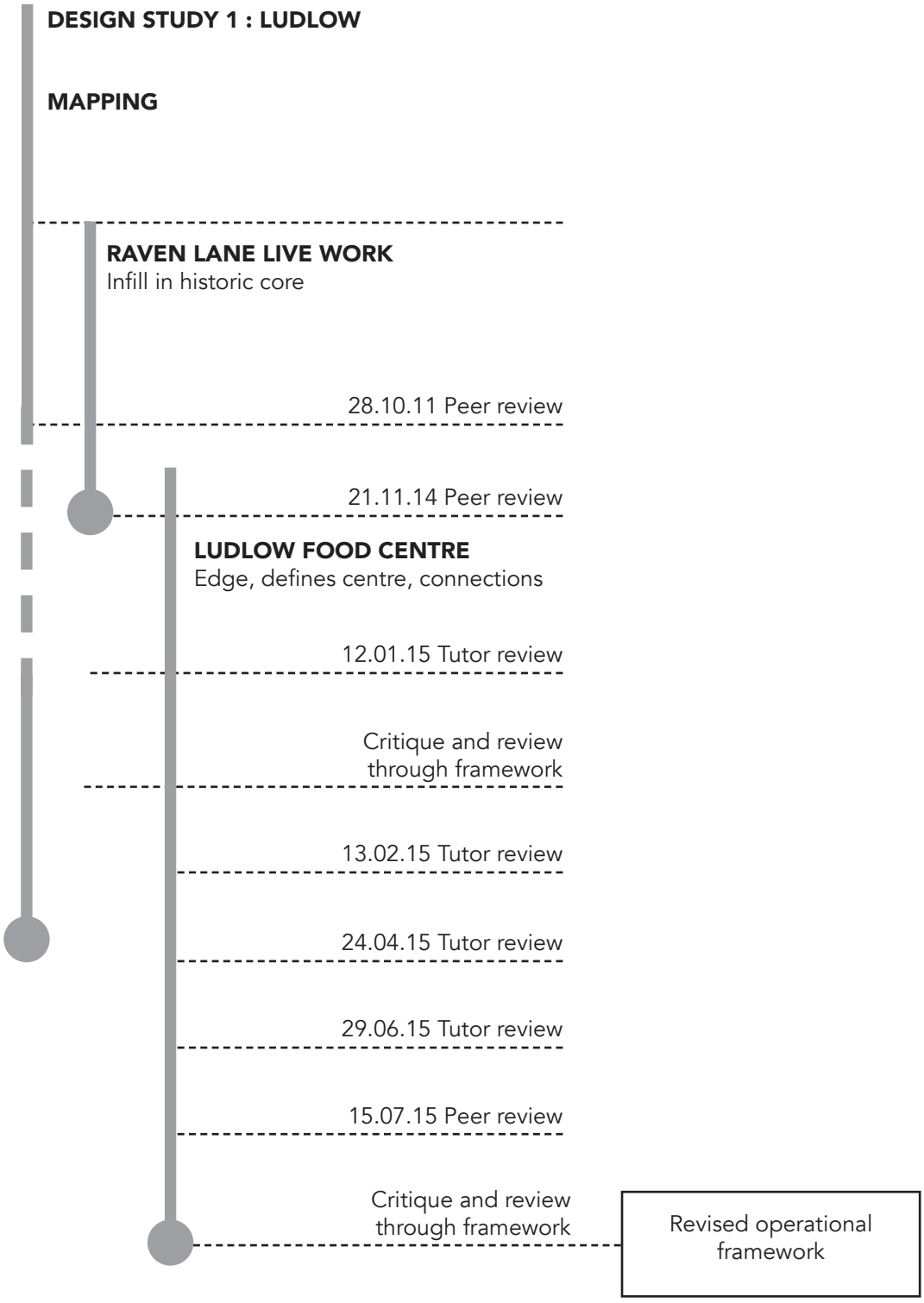


Fig 7.3. Timeline of Ludlow projects

have been carried out through the operational framework. Each project has been peer reviewed multiple times as shown in the timeline of the design process (fig.7.2).

Following an introduction to Ludlow, the mapping, Raven Lane and Ludlow Food Centre will be presented in turn with individual critique and findings, before the chapter ends with a reflection on the success of the operational framework.

Fig 7.4. Ludlow aerial photo: The entirety of the town in the landscape.

Fig 7.5. Ludlow viewed from the south west, with St Peter's Church and the Clee Hills beyond.

7.1.2 Introducing Ludlow

Ludlow, Shropshire (fig.7.4), is a classic example of a Norman planned or planted town.[3] Located near the mid-point of the Anglo-Welsh border, it grew following the construction of a castle to the north of the village of Dinham in 1086-94. The castle was located at the western end of a prominent ridge at a strategically important river crossing. A major church (fig. 7.5) was built to the north east of the castle and a linear marketplace grew along the high ground between the two, later partially infilled. The planned town, occupying the slope to the south of the market, was laid out using a series of north-south streets with east-west connecting lanes, adapted to suit the topography. The town was encircled by a curtain wall, which seems to have excluded part of the planned town to the south; only fragments remain. The town had a number of grand medieval buildings, such as the Feathers Hotel (fig. 7.7) and other important medieval institutions including a priory, a grammar school and the Buttercross (fig. 7.8), a covered market with council chambers above.

Ludlow was a centre for wool and cloth manufacture, later becoming a centre for glove making.[4] The town found further wealth when the Council of the Marches, founded by Edward IV, made its home at Ludlow Castle.[5] The town's trade made it a prosperous centre well into the 17th and 18th centuries. The town's medieval timber buildings became re-fronted and decorated, rich with ornamentation and decoration.[6] At the end of the 17th century, the town became a popular social centre, with new Georgian additions such as the assembly rooms, brick townhouses and new brick frontages built on many of the medieval buildings (fig. 7.6).[7]

In 1852 the railway arrived to a station just outside the historic town core and suburban expansion towards the north east began to take place. The town had no competitive advantage over others in the region so was largely unaffected by industrialisation, preserving much of the historic fabric.[8] This made the town a centre for the antiquarian movement at the end of the 19th century; the town core became a conservation area in 1970 and has over five hundred listed buildings.[9]

A major by pass (the A49) to the north east of the town has relieving congestion in the historic core. The line of this road acts as a development boundary to suburban expansion and light industrial units. The town is a local employment centre and continues to act as a service centre

3 Maurice Beresford, *New towns of the middle ages* (New York: Praeger, 1967) p.481.
4 Stephen Owen, 'Classic English hill towns: Ways of looking at the external appearance of settlements' *Journal of Urban Design*, 12: 1, pp.93-116. (p.96).
5 Ludlow Visitor Information Service, *A brief history of Ludlow* (Ludlow: Ludlow Visitor Information Service, 2015) available at <http://www.ludlow.org.uk/history.html> [accessed 07.07.15]
6 Paul Knox and Heike Mayer, ibid. p.72.
7 Ludlow Visitor Information Service, ibid.
8 Paul Knox and Heike Mayer, ibid. p73.
9 Paul Knox and Heike Mayer, ibid. p73

Fig 7.6. Ludlow: Georgian frontages

Fig 7.7. Ludlow: The Feathers Hotel

Fig 7.8. Ludlow: The Buttercross

for its rural hinterland.

The recent history of the town has been dominated by food tourism. The town was the first UK member of Cittaslow, a member organisation promoting conviviality, slow food and quality of life. The Ludlow Food Festival became a popular tourist attraction and the UK's first successful food festival, running sice 1995[10]. A food centre, cafe and produce store is located on the ring road, and Ludlow college offers culinary courses. The distinctive focus on food was supported by a number of Michelin starred and AA Rosette awarded restaurants, of which none now remain.

10 Ludlow Food Festival, *Ludlow Food Festival 2016* (Luldow: Ludlow Food Festival, 2015) available at < http://www.foodfestival.co.uk. [accessed 10.06.16].

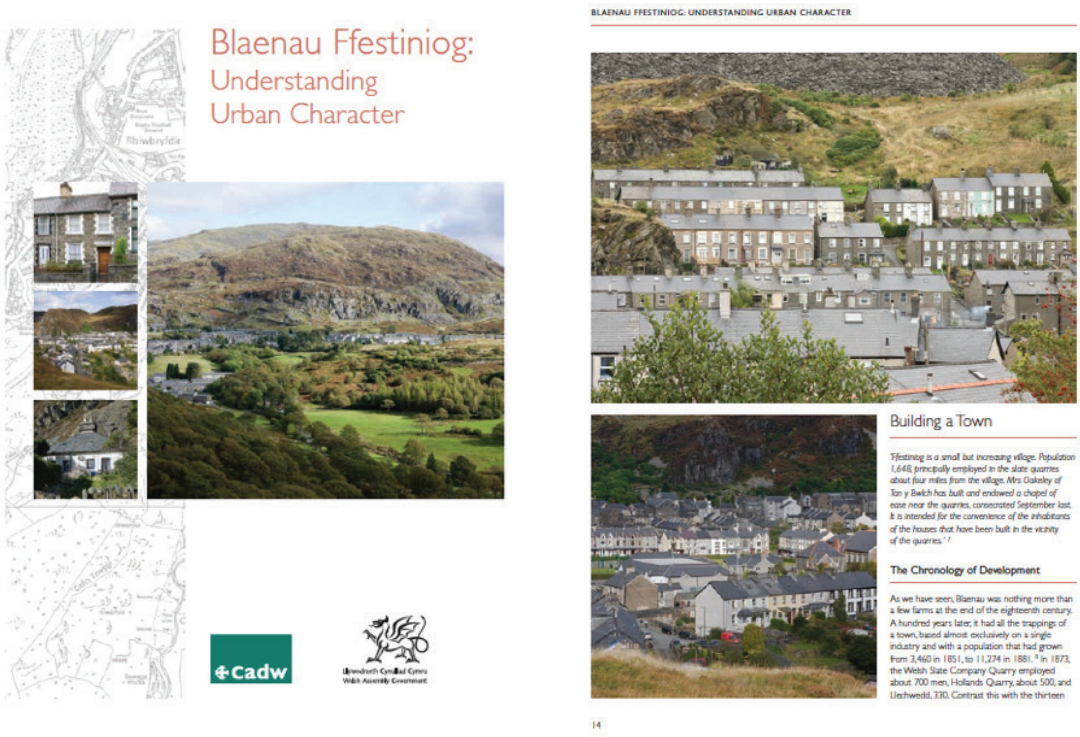


Fig 7.9. Excerpts from Cadw's Characterisation study of Blaenau Ffestiniog, a historically focused analysis of place and distinctiveness

7.2 MAPPING LUDLOW

7.2.1 Developing a mapping process

The design study in Ludlow aims to take principles set down by Snozzi and to try them out in a UK context to develop a suitable method for revealing the spatial characteristics of the town.In order to plan for the future of rural towns effectively, their setting, sense of place and condition needs to be carefully assessed. Spatial understanding of place is seen as a tool for design, part of a design process rather than isolated act.

Snozzi's approach was identified as being founded in the traditions of the European city; in order to test his approach in the UK an analytical approach was developed through mapping exploring underlying morphological layers and relationships based in the traditions of placemaking. Mapping has become an increasingly important tool for understanding place, documenting and describing the world and lived experience; through reflection and interrogation of mappings one can imagine new avenues for exploration and new futures.

A widely used approach to understanding historic townscape such as market towns is the characterisation study (fig. 7.9). English Heritage Historic Area Assessments and CADW's Characterisation studies are:

> *"intended to assist planners, historic environment specialists, communities, developers and others in evaluating the historic environment […] and helps to address issues that may threaten to change that character."*[11]

Historic Area Assessments (HAA) provide an important and practical tool for the informed management of the historic environment, providing guidance on the distinctive nature of places and the areas and buildings of significance. But while exemplary in their exploration of history and morphology, the outcome of such a study is conservation-led and in many examples does not provide guidance for designers or townspeople to help shape the future of a place. Instead, it reinforces protectionist principles that has in many cases resulted resistance to change and atrophy.

The mapping approach developed in Ludlow acts as visual record of the place, abstracted from reality. It aims to reveal strengths, weaknesses and opportunities; through representing the familiar in abstract ways it can uncover themes that have been neglected, unseen or

11 English Heritage, *Understanding Place. Historic Character Assessment: Principles and Practice*, (Swindon: English Heritage, 2010) p.2.

missed. There is an expansive body of literature regarding the process of mapping and its relevance in the design process. Its importance as a design tool is described by James Corner as "*instrumental in the construing and constructing of lived space" […] a collective enabling enterprise, a project that both reveals and realises hidden potential"*[12]. To achieve this mapping must go beyond 'tracing' what is already known to reveal the hidden forces underlying the structure of a specific place.

The mapping is developed and tested through practice, resulting in drawn and modeled studies of place. The layers explored through the mapping relate to the principles of placemaking identified in chapter 3. The maps are divided into a number of themes:

- **Landscape**: Underlying landform, waterways and geology. Exploration of these underlying structures can help understand the reasons for location and organisation of a town.
- **Vegetation**: Areas of green space, vegetation and tree cover. To the south, the town is overlooked by a woodland common, defining a boundary to the south. Within the town itself tree cover is limited to the castle grounds; the majority of the town itself has a dense urban fabric with little green space.
- **Morphology**: Revealing the historic plan forms and gradual changes to the fabric of the place informed by Colin Rowe's notion of the collage city and MRG Conzen's plan analysis method of analysing morphology and growth in historic towns. The figure ground of the town reveals solid and void, density of development and patterns within the built fabric.
- **Routes and Ways**: The hierarchy of public spaces, roads, squares, paths and lanes around the town, including analysis of weight of use and traffic, informed by Jan Gehl and Gordon Cullen.
- **Land use and Key buildings**: Existing land uses identify the commercial focus of the town and surrounding residential areas.
- **Spatial character**: Alongside the analytical mapping, a number of smaller scale studies have been undertaken with a focus on the character and material of the town. These included a catalogue of construction, detail and the material; a photographic survey of spaces and ways; and explorations of public space.

12 James Corner, 'The Agency of Mapping: Speculation, Critique and Invention' in *Mappings* ed. by Dennis Cosgrove (London: Reaktion Books, 1999) pp.213-252 (p.228).

7.2.2 Mapping Ludlow

Fig 7.10. Landscape: Ludlow is founded on a terrace site, located on a defensible ridge and protected on two sides by the River Teme. The castle is located on the western edge of a defensible ridge running east-west. The course of the river meanders around the ridge; the erosion of the hillside has created a steep defensible bank to the west of the ridge. To the south of the river the ground rises to Whitcliffe, a long ridge overlooking the town.

Fig 7.11. Vegetation: Aerial photos show Ludlow to be a relatively green town, however from within the town there is little sense of green space. Public green space within the town is found around the church, the castle wall and at the western river crossing. The castle hillside is wooded and to the south of the town, Whitcliffe has heavy deciduous tree cover.

The location of the town on the slopes of the hillside creates a situation where the landscape is visible from most points in the town, creating a strong connection between the town and its hinterland. This reinforces the market town and its rural surroundings are historically interdependent, each needing the presence of the other to survive.

Fig 7.12. History and growth: Ludlow's development as a town began after the Norman invasion, when the land belonged to the estate at Cleobury Mortimer. Small settlements existed in Galdeford and Dinham at the east and west ends of the ridge, but the growth of the town was sparked by the construction of the castle in 1090. A linear market develped along the ridge, linking the castle to a new church, located on the site of an ancient tumulus, with burgage plots on either side. At this junction with the north-south borders road, the Bull Ring, a triangular market area developed. Burgage plots were later laid out south from the Bull Ring along Old Street towards the river crossing. Finally, the southern plan unit was laid out in a rectilinear form and by 1233 the town is enclosed in a defensive wall with seven gates. Galdeford, the first suburb, develops outside the Galdeford gate to the east of the town.

Fig 7.13. Morphology: The morphology of the town clearly shows the high density medieval core of the town, with strong street edges and back land development within the burgage plots. The east-west market, from the castle to the Bull Ring, was gradually infilled from an early date. Later victorian additions include terraced housing to the south east of the town, while sparse 20th century suburban development can be seen to the east and north.

1

2

3

4

5

6

7

8

1 - Ludlow castle
2- Ludlow College
3 - Ludlow Grammar School
4 - Buttercross
5 - St Lawrence Church
6 - Ludlow Library
7 - Tesco
8 - Station
9 - Castle Square

Fig 7.14. Key buildings & spaces: The historic heat of the town is along the ridge, with the castle to the west and St Laurence's church to the east, linked by castle square and the Bull Ring market places. Places of education are integrated into the core; the medieval Ludlow Grammar school and Ludlow College are within the historic core. New additions to the fabric include Tesco Ludlow, located on Corve Street, and Ludlow Library which is located on the edge of the historic town. The railway station is slightly detached from the core; visitors have to traverse extensive car parking to get to the town.

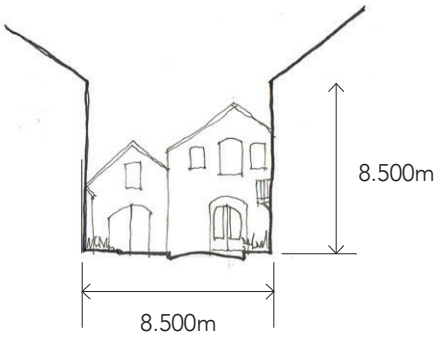
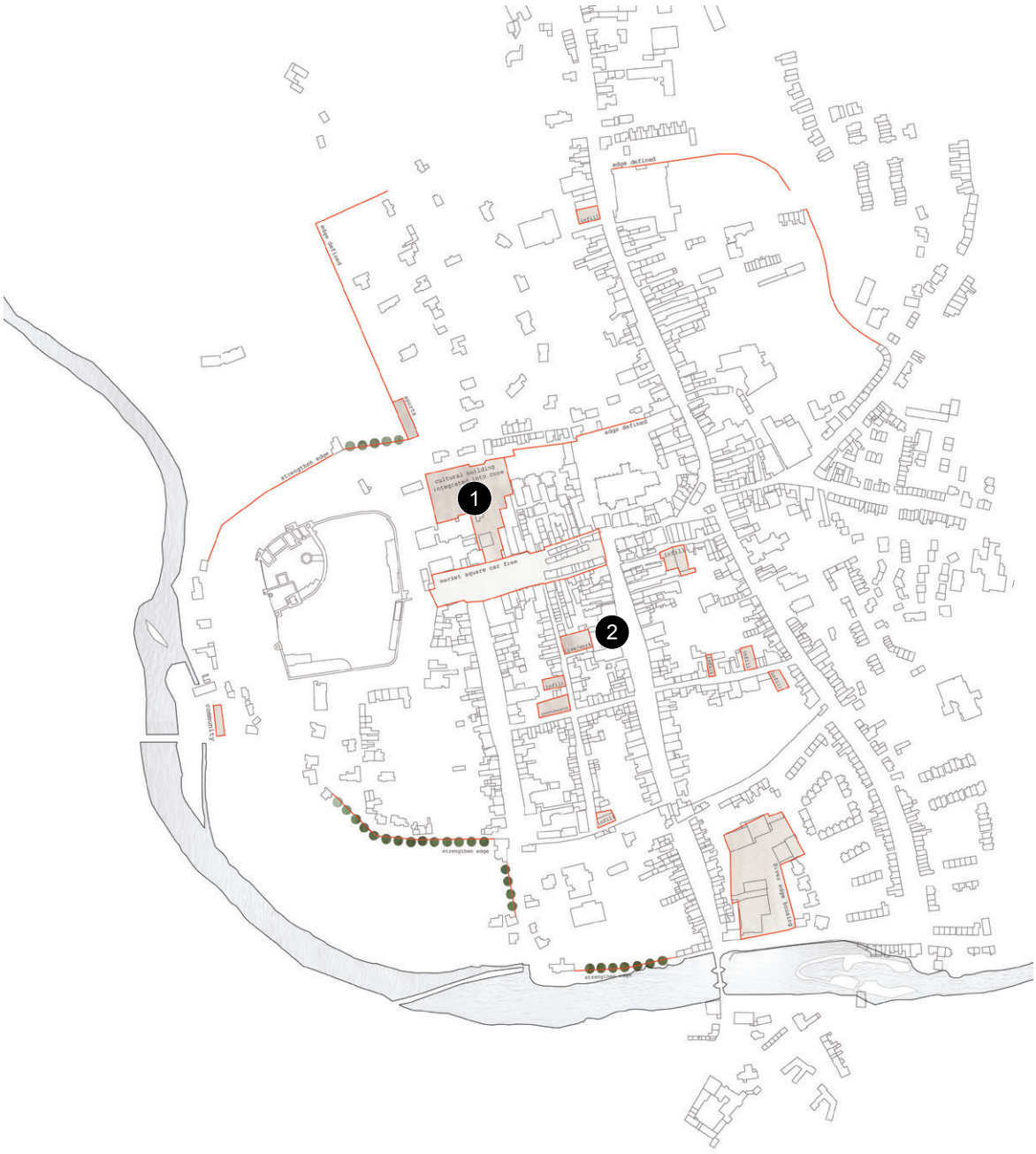


Fig 7.15. Quality Square recorded in plan, section, elevation and photograph.

Fig 7.16. Routes & ways: A town bypass has reduced the amount of through traffic but the north-south route remains the busiest route through Ludlow. The road links the town its local surroundings and eventually to the bypass. Traffic heading to the train station, Tescos or the town centre will use this route. The north south streets within the planned southern area of the town are used as parking for offices and houses. The east-west link lanes feel busy due to their narrow width; traffic often builds up as cars attempt to pass. Two main car parks serve the town; one at the top of the hill off the market square, accessed by driving around the square and through a narrow lane, and a larger terraced car park between Tesco and the library (2). A network of lanes and snickets provide pedestrian connects with a strong sense of visual delight; each yard has a different character and form. Shown opposite is Quality Yard, located off Castle Square (1).

Fig 7.17. Land use: Analysis of land use highlights the tight knit commercial and retail core of the town around Castle Square and a quite sudden change to residential properties. Cafes and public houses sporadically dot the settlement.

Fig 7.18. Planning constraints: Overlaid on the map are the planning constraints identified from the South Shropshire Local Development Plan and associated maps. It highlights several important aspects of planning policy: The conservation area, scheduled ancient monuments (castle and town wall remains) and the development and town centre boundaries. The map also highlights the site of special scientific interest along the river and the extent of the flood plain, which reaches the southern and north western fringes of the town when in flood.



1 Castle Square

2 Raven Lane

Fig 7.19. Actions: The actions map is derived from comparative analysis of the mapping studies and experience of the town 'on the ground'. It highlights three main forms of site that address Snozzi's principles: edge sites (addressing boundary definition); infill sites (consolidation in the historic core); and central sites (acting to define the centre). Two sites were identified for design studies that address these prinicples: As site off Castle Square for a cultural building, located on the edge of the town centre and reinforceing the edge and skyline; and Raven Lane, exploring consolidation and densification on in infill site. Further opportunities to use landscape to define edges and limit growth are also identified.

Fig 7.20. Town model: The 1:2500 model identifies the sites that emerge from the mapping on a three dimensional representation of the morphology and topography. It starts to suggest possible forms of development that could take place on the identified sites.

7.2.3 Commentary on the mapping process

- The fieldwork process

The process of understanding Ludlow commenced with a desktop stage of historic and map based as a basis for fieldwork. The fieldwork focused on the exploration of the physical character of the town, where layered drawings were use to document and record Ludlow as found and as inhabited in the present. Beyond the traditional site analysis carried out by the architect, fieldwork explores a wider spatial territory where the final location of action may not be known. This was the case in Ludlow, where sites for intervention were identified through the process of mapping, inverting the accepted norm of working from a delimited site and encouraging designers to start "*from the outside in*"[13]. Fieldwork suggests a broader spatial territory which is *"more contingent, responsive and depends on the flowing pervasive conditions, clouds, indeterminate edges."*[14]

Expanding site thinking beyond the site boundary aids the knitting of new buildings into the fabric of the town. Burns and Kahn suggest consideration of three distinct aspects of site that support this approach: the area of control- a boundary traced through ownership and property lines; the area of influence- the external forces acting upon a site; and, the area of affect- the areas impacted upon following design action. This suggests a reciprocal relationship between site and context but also a temporal relationship, leading to an understanding of site as *"a physically specific place and a spatially and temporally expansive surround."*[15] Considering site not as fixed but as temporal offers the possibility of new uses, forms and architectural language that grows from and enhances the historic fabric.

Fieldwork offers a more in depth exploration of place, explored over numerous visits and experiences of the town at different times of day and different seasons. This adds to the depth of knowledge about the place that is acquired and can inform design decisions. This requires repeated visits and prolonged experience. In the mapping of Ludlow the depth of knowledge was limited; in the next design study this could be addressed by undertaking a residency or longer-term engagement in a place. This would enable a more thorough understanding of a town- its distinctiveness, sense of place and daily life.

13 Peter Marcuse, 'Study Areas, Sites and the Geographic approach to Public Action', in *Site Matters: Design concepts, histories, and strategies* (New York: Routledge, 2005) edited by in Carol Burns & Andrea Kahn (pp.249-280) p.251.
14 Suzanne Ewing, *Architecture & Field/work* (Abingdon: Routledge, 2011) p.172.
15 Carol Burns & Andrea Kahn, ibid. p.xii.

- The mapping process

The maps describe and analyse underlying components that contribute to a sense of place. Viewed independently, they reveal only one aspect of the morphology of the town. The strength of the developed mapping is when the maps are viewed together and superimposed as a series of layers, creating a *'thickened surface'*[16] that reveals the relationship of the parts. Representations of place crafted through maps, drawings and in particular physical models uncover new opportunities across seemingly exhausted ground. Through these careful and critical mappings of place and statistics at multiple scales, areas of fragile, neglected or weak town fabric are revealed. The approach recognises the value and virtue of inherited urban fabric while seeking to reinforce and strengthen settlements through precise and measured spatial intervention.

Analysis was primarily carried out through the redrawing, manipulation and overlay of maps, giving the aerial view dominance in the mapping process. This was primarily a two dimensional study and largely ignored the three dimensional aspects of the town, such as the scale of streets, sections through the town and sense of enclosure. The mapping was further limited in the scales at which it was applied, and more close inspection of detail and material would be beneficial to enable its interpretation and abstraction in the operational framework.

Rather than being seen as an exhaustive site analysis, the mapping process could be integrated into the design framework more thoroughly. A cyclic approach of continual return to and reference of the mapping in an iterative process as part of the design conversation with the site could be achieved through integration of Snozzi's principles with the operational framework. This could extend the mapping from an analytical study to become propositional, a tool where design is used as a way of finding things out rather than a solely analytical device.

The mapping focused on the historic core and its immediate surroundings. It did not consider what happens beyond the historic town, while the importance of peripheral development and its relationship to the historic town was highlighted in the literature review as a particular concern. In the next design study, a wider exploration of the town, its phases of development and building typologies could help to inform the location and type of sites identified and the connections between different areas of a town. Of particular importance is the interface between the old and new towns, as these are often divided by arteries such as distributor roads, ring roads, or railway lines (as is the case in Ludlow). These barriers can prevent integration of later development into the historic town and exaggerate the divisions between historic cores

16 James Corner, 'The Agency of Mapping: Speculation, Critique and Invention' in *Mappings* ed. by Dennis Cosgrove (London: Reaktion Books, 1999) pp.213-252 (p235).

and the periphery.

- Identification of sites

A morphological approach to Ludlow has been successful in highlighting weaknesses and sites for action. The study took the rules learned from Snozzi and applied them to a UK town. They are successful in identifying sites to reinforce the historic town and strengthen its edges.

Sites for intervention are identified through the process of mapping. The process inverts the accepted norm of working from a delimited site by encouraging analysis of the wider settlement without a site in mind. This suggests that professionals should start "*from the outside in*"[17] rather than the opposite, conventional approach. The mapping revealed a number of sites across the town with different characters: infill within the historic core; edge sites that reinforce the boundary of the town; and two larger, more significant sites at the north and south of the town. While all of these sites could be explored to holistically reimagine the town, two sites were selected as a focus for design studies: an infill site on Raven Lane, embedded within the planned southern part of the historic town; and one of the two larger sites, located the north edge of the historic town and linked to Castle Square. These two sites offered the opportunity to explore all four of Snozzi's themes. Raven Lane is a site suited to consolidation and densification, while Castle Square is located on a highly visible edge with the opportunity to strengthen the town centre and connect along the escarpment to Corve Street to the east. Each of these sites will now be examined in turn and the operational framework tested and refined through design studies.

17 Peter Marcuse, 'Study Areas, Sites and the Geographic approach to Public Action', in *Site Matters: Design concepts, histories and strategies* (New York: Routledge, 2005) p251.

Fig 7.21. Raven Lane Housing viewed from the south

7.2 RAVEN LANE HOUSING

7.3.1 Introduction

The first design study undertaken in Ludlow takes an infill site and explores contemporary densification within the historic core (fig. 7.21). Learning from Snozzi's approach, the design project explores a contemporary mix of uses and types of housing, while formally acknowledging its context. The project examines the integration of new, contemporary housing within the core, rather than additional development on the edge of the town.

The following section will outline the brief and site for the project before proceeding to report on design studies carried out using the operational framework. During the iterative design process, the project has been through peer review, tutor review and self-reflection. The section will finish with a review of the design through the framework.

7.3.2 Site as found

Raven lane is located to the south of Castle Square. It is part of the southern unit of the planned town, an area characterised by a grid of streets and lanes with regular burgage plots running east-west. The lane slopes to the south toward the river. The site is a gently sloping vacant plot embedded in the historic fabric of the town (fig. 7.21-7.24). It is one of a number of vacant plots identified with the historic fabric. Surrounding burgage plots are heavily developed with strong street edges and alleys or snickets through to back land development within the depth of the burgage (fig. 7.25). The surrounding buildings are generally two to three storeys; the site has a blank gable on its northern edge, a lane accessing a workshop to the south and backs onto the garden of the burgage plot behind (fig. 7.26).

7.3.3 Brief

The project brief is for housing and examines the issue of new, contemporary housing within the historic core as an alternative to development on the edge of the town. The design commenced with a brief for speculative family homes and studies were undertaken to determine the number of homes that could be successfully accommodated on the site.

Fig 7.22. Site viewed from the south, with St Peter's Church visible in the distance

Fig 7.23. View west across the site

Fig 7.24. View across the site from the west, showing the garage workshop and lane

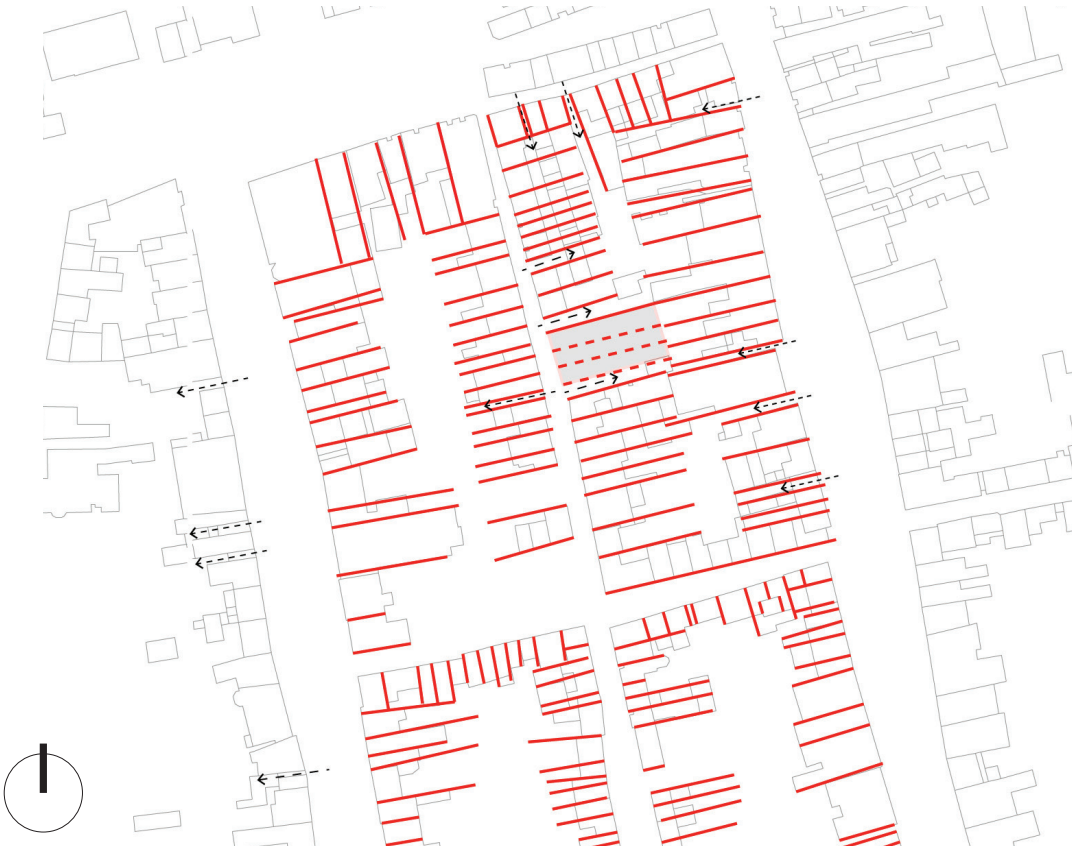


Fig 7.25. The location of the site within the southern planned unit of the town

Fig 7.26. Site plan and elevations onto the site

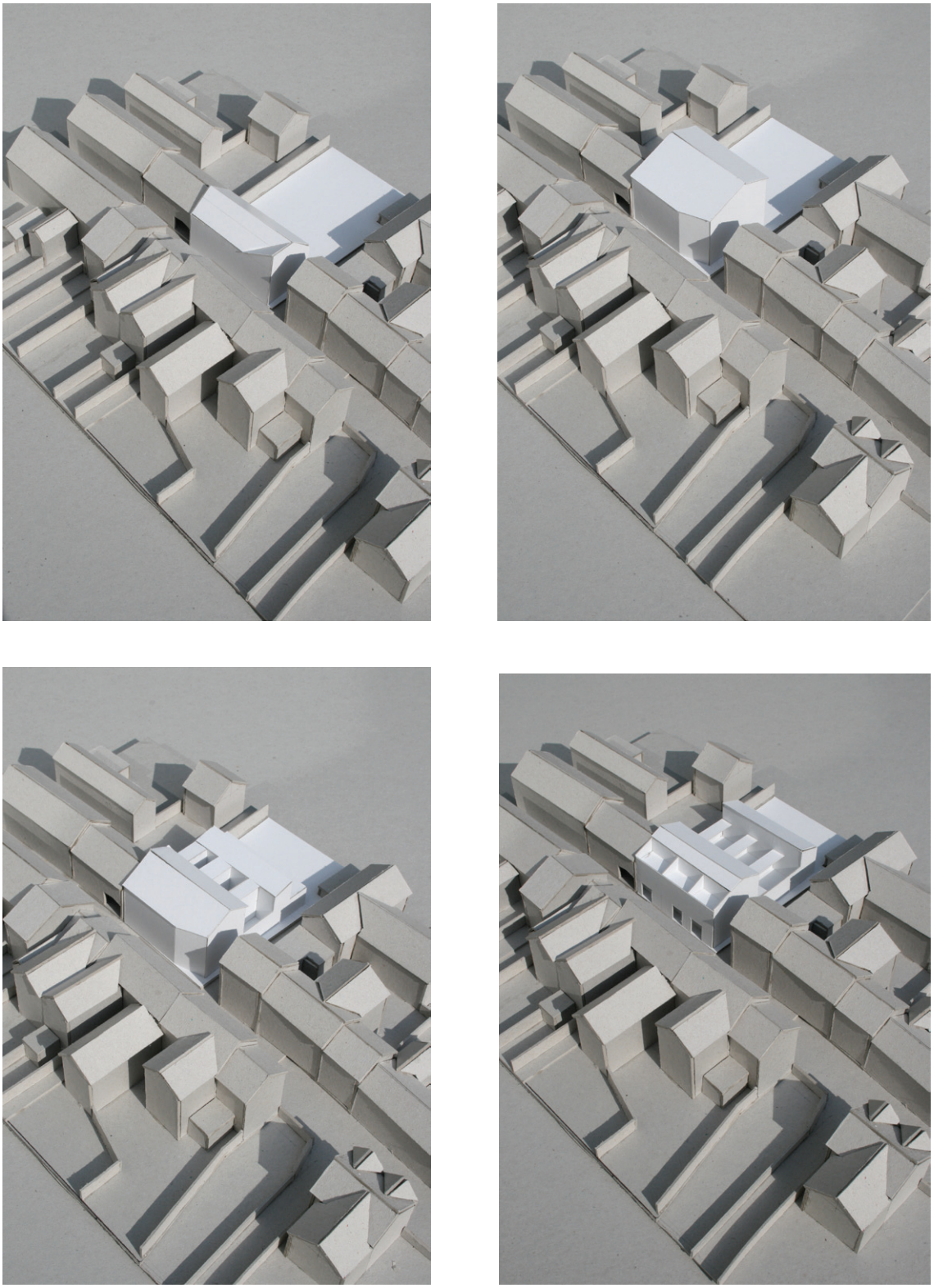


Fig 7.27. Massing models: The massing was developed though models exploring how the street could be completed and the extent of accommodation that could be provided on the site.

7.3.4 Stage 1 – Speculative housing

The early development of the project focused on two key elements, maximising density and completing the street (fig. 7.27).

The proposal aimed to draw on the 'as found' tradition of the English Terraced House for precedent for the principles of the house design. The initial brief for the project proposed to create speculative family housing on the plot. Design studies explored the number of units that could be accommodated to densify the urban fabric, a priority identified in Snozzi's approach to Monte Carasso. Ground notations such as the structure of burgage plots were reinstigated across the site, diving the site into three equal plots. The massing models show the development of the volumetric grain, from a linear block infilling the street with rear gardens to a denser model with a terrace along the street and a mews at the rear.

The design intended to learn from the surrounding terraces and the recognisable image of the terraced house. In Ludlow, the burgage plot structure is characterised by a strong terraced form with a formal façade to the street, with yards, outhouses, mews and smaller buildings to the rear of the plot. Two scales of terraced house are found; small two or three storey workers cottages, typically either late medieval or Victorian, and larger three to four storey Georgian fronted houses. The design aimed to evoke the image of the terraced house in form and organisation, exploring a well known typology that is well known and familiar. As Viollet-le-Duc describes, the house contains within in it expression of understood ways of living and is only gradually adapts to change:

> *"In the art of architecture, the house is certainly that which best characterises the customs, tastes, usages of a people; its order, like its organisation, changes only over very long periods of time."*[18]

Continuing the street is a two and a half storey (with rooms in the roof) block of three bedroom houses, each organised around an internal courtyard (figs. 7.28 to 7.30). Entry to the house was from the street through a lowered service zone with a WC and the stair access of a small hall. Beyond the hall was a living room, opening to a glazed courtyard, with a link to a kitchen and dining room beyond. Learning from the traditional terrace, the floor heights on each level vary, with a compressed first floor of bedrooms and a master bedroom in the roof open to the roof pitch. To the rear was located a smaller mews of one bed houses with a sleeping deck over an open plan living area. This mews was accessed via an alley and the lane to the south of the site.

18 Eugene Viollet-le-Duc, 'Dictionaire raisonne de l'architecture francaise de XI au XVI siècle' quoted in Michael Howe, 'A place of Type: A view of contemporary British row houses' in Matthew Taylor et al, *Evolving Norms of British Housing* (London: RIBA, 2008).

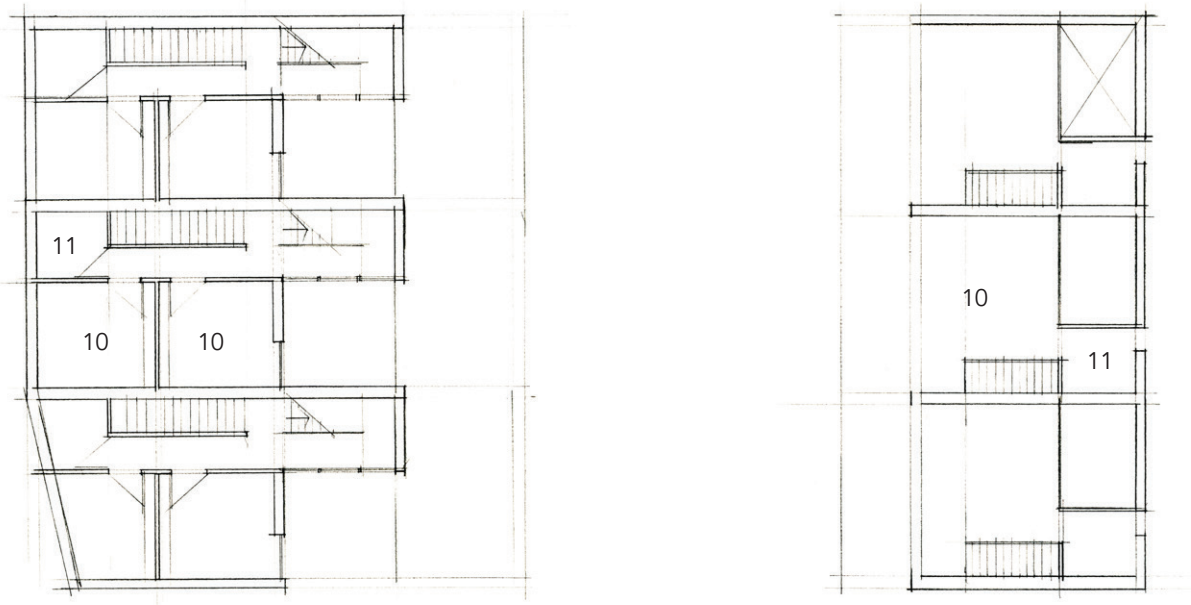


Fig 7.28. First floor plan

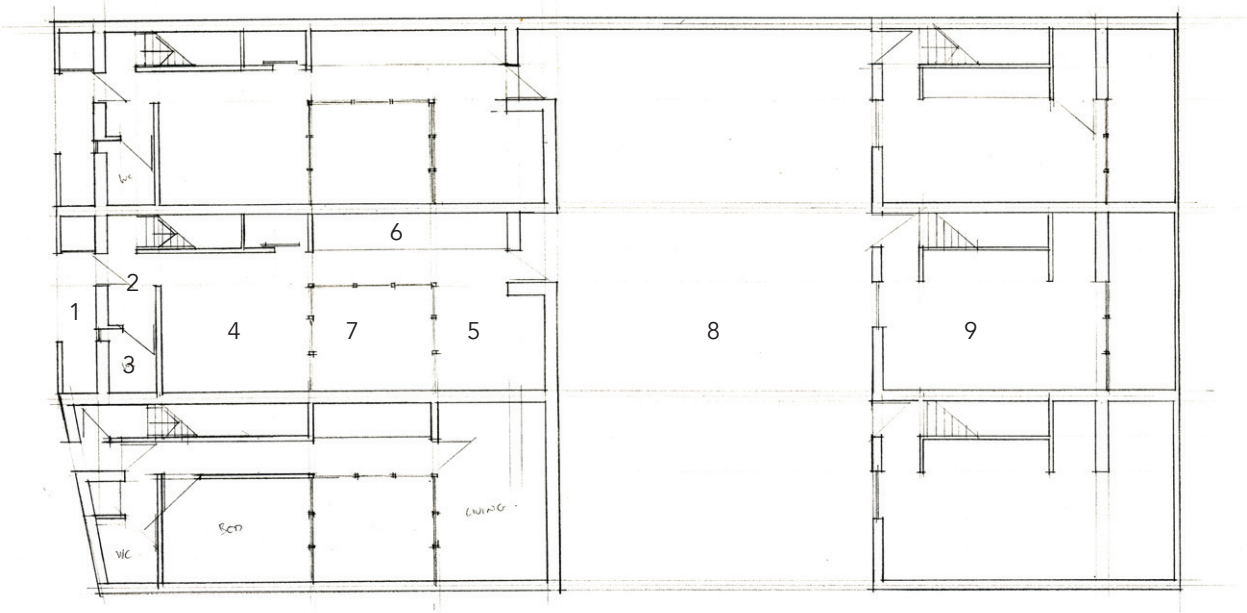


Fig 7.29. Ground floor plan

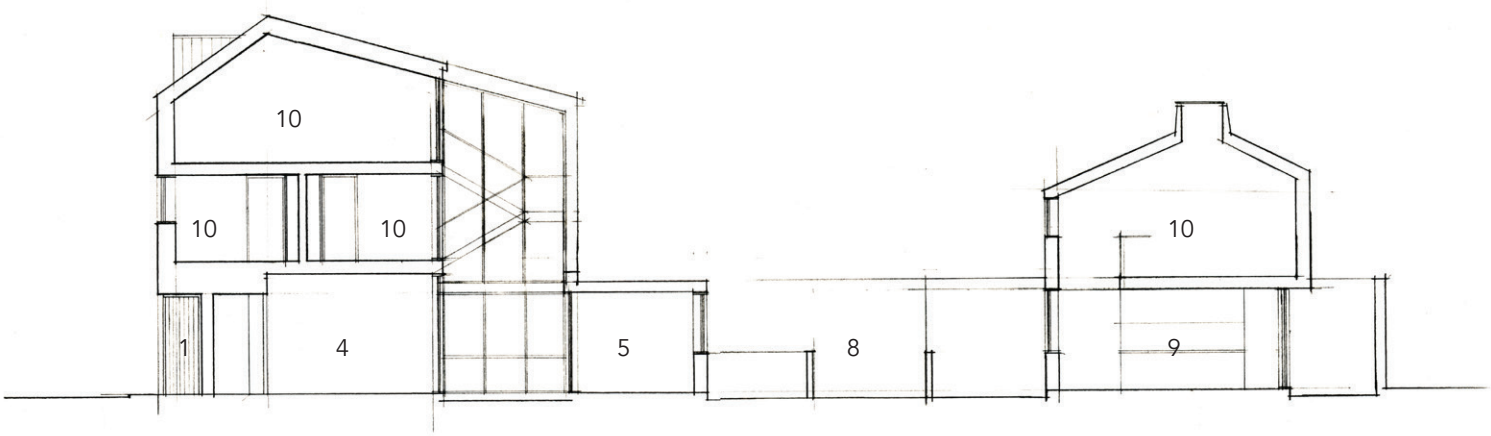


Fig 7.30. Long section

Key:

1 - Porch
2 - Hall
3 - WC
4 - Living room
5 - Dining room
6 - Kitchen
7 - Courtyard
8 - Garden
9 - Annexe
10 - Bedroom
11 - Bathroom

Both houses had a small semi-private area of outdoor space.

7.3.5 Peer review (28.10.11; Wayne Forster & Simon Unwin)

- Brief and programme:

- While the design proposal works as family housing, it reinforces the status quo rather than offering any viable alternatives or introducing new ways of living to the town. Tackling underlying issues such as affordability would give the proposal greater relevance and a critical attitude.
- A greater mix of dwelling types might be appropriate, or perhaps exploring different forms of living such as live-work, starter homes or apartments.
- Introducing a lane or yard through the proposal parallel to the street could create a street edge and a mews, as is found in many of the burgage plots, and allow a more dense development of the site.

- Outcome and next steps:

- Reconsider the brief for the project and how it creates an alternative to existing patterns of development rather than reinforcing the status quo.

7.3.6 Revising the brief

Peer review of the project highlighted that while the initial brief development was a valid approach, the proposal reinforced the status quo rather than offering viable alternatives or introducing new typologies to the town. A major issue in many towns is the affordability of houses in the town centre; historic houses in this area attract a price premium and are beyond the means of many buyers.[19] It was suggested that a greater mix of dwelling types might be appropriate, or perhaps exploring different forms of living. An increasingly popular form of living is live-work housing, as increases in distance working facilitated by the internet the availability of high speed broadband make working at a distance from a centralised workplace possible. Rural areas see more home working than the national average;[20] however, Frances

19 Searches on Rightmove suggest that a 2 bedroom character cottage in central Ludlow will cost in excess of £200,000, with house prices for larger 3-4 bed family homes rising to over £500,000. Source: <www.rightmove.co.uk> [accessed 02.09.15]
20 Tim Dwelly et al, *Under the Radar: Tracking and Supporting Rural Home Based Businesses* (Cheltenham & Penzance: Commission for Rural Communities and Live Work Network, 2006) p.4.

Holliss suggests that under present legislation and policy, many of these are working covertly.[21] Taking the desire for home working as a brief and exploring its application could also open up opportunities to explore aspects of the framework that a speculative housing project might not be able to do.

The revised brief for Raven Lane takes the increase in home working as a starting point. Historically, the burgage plot was a place of multiple functions, including living, working, growing and storage. The burgage cycle identified by Conzen suggests that there was a constant re-working of the burgages, as owners and businesses changed along with fashions and lifestyle. The separation of house and work was uncommon; Hollis suggests this parting was a result of industrialisation and consequent changes to society, a trend that has recently begun to be reversed:

> *"A physical separation between workplace and dwelling was both an inevitable consequence of industrial capitalism and its invaluable tool. Employers gained an unprecedented degree of control over their workforces in collective workplaces made necessary by industrial processes, thus maximizing profits from industrialized production. But in the contemporary global economy, supported by information technologies, the geographical location of a great deal of work is immaterial. The home-based workforce is, as a result, now growing rapidly, both globally and in the UK."*[22]

Home-based work has potentially significant implications for the social and economic vitality of neighbourhoods. Keeping people in the local area throughout the day, interacting and carrying out transactions locally, has a positive effect on the liveliness of the environment.[23] In the current policy framework, issues such as space standards and the bedroom tax make home working a difficult prospect. Where home working is encouraged, for example through housing development requirements and the Code for Sustainable Homes, this consists of a desk space in a bed or living room rather than a separate workspace. Holliss describes the shortcomings of this approach:

> *"this often does not provide the home-based worker with appropriate space to accommodate their occupation, which may range from child-minding to costume-making. And it does not address the complex issue of how to combine/separate the two aspects*

21 Frances Holliss, *The Workhome: Introducing Policy and Governance* (London: London Metropolitan University) <http://www.theworkhome.com/introducing-policy-and-governance/> [accessed 02.09.15].
22 Frances Holliss, 'From Longhouse to Live/Work Unit: Parallel Histories and Absent Narratives', in *Built from below: British Architecture and the Vernacular* edited by Peter Guillery (London: Routledge, 2012) pp.189-207 (p.189).
23 Clare Melhuish, 'Home-working - the new peasantry or a regenerative impetus for cities?' in *Architectural Review* 229.1369 (2011) p.29. (p.29).

of people's lives, home and work in a single building."[24]

The location of the site centrally in the historic core of the town makes it an ideal location for live-work housing. The location could host a variety of activities, from the remote worker working from home, to art or design studios and service businesses requiring an accessible space from the street. It is easily accessible from Castle Square to the north and parking for visitors can be found on the surrounding streets.

The proposed final brief for the project aims to explore how live-work could be integrated into the core while working within the operational framework.

24 Frances Holliss, *The Workhome: Introducing policy and governance* (London: London Metropolitan University) <http://www.theworkhome.com/planning-and-development-control/> [accessed 02.09.15]

7.3.7 Stage 2 - Live-work

Fig 7.31. Elevation study 1:
Continuous roof line with eaves stepping up from two storey terrace to the north to the three storey house to the south. Tall and square windows, with paired doors to the street. A dormer window marks corner of the site.

Fig 7.32. Elevation study 2:
Stepping roof line, marking the parti wall of each house. Ths perhaps follows the pattern of the south of the site rather than the extended terraces to the north. The houses have square windows, while the apartment has horizontal windows above kitchen units.

Fig 7.33. Elevation study 3:
A continuous roof line with a step up to a dormer window on the corner of the site. Tall windows at the upper floors with square windows at ground floor for privacy.

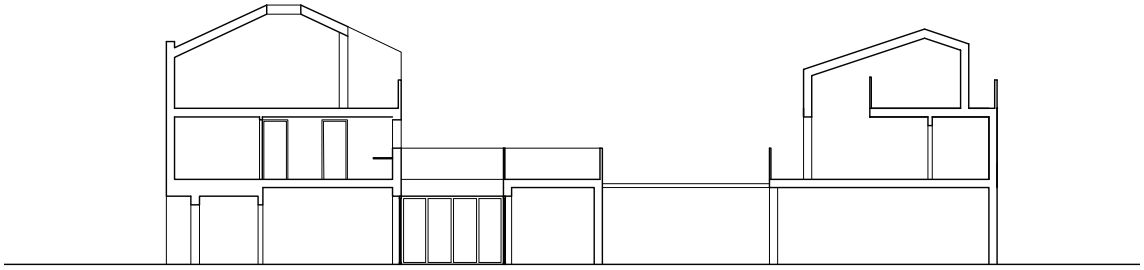


Fig 7.34. Section option 1:
Three storey house and three storey mews (second floor mezzanine).
A strong street frontage breaks down internally to the yard, which has terraces cut into the simple form. A second floor terrace to the mews house overlooks the gardens beyond, so is not feasible.

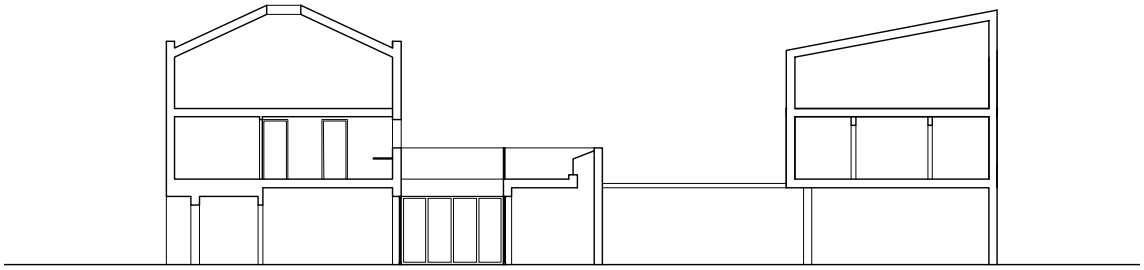


Fig 7.35. Section option 2:
Three storey house and three storey mews.
Terraces are removed to create more habitable space. The mews has a full second floor rather than a mezzanine, and cantilevers over the work space below. The mews has a similar height to the house, making it less of a mews and more of a second terrace. This massing should reduce.

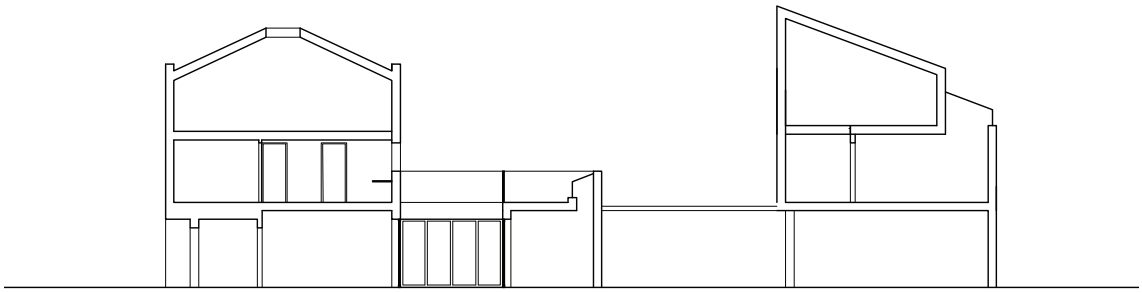


Fig 7.36. Section option 3:
Three storey house and three storey mews.
The terrace house remains as above but the mews house roof is reversed and a glazed slot introduced to the rear of the site. The massing of the mews to the courtyard remains too high, overpowering the yard and house.

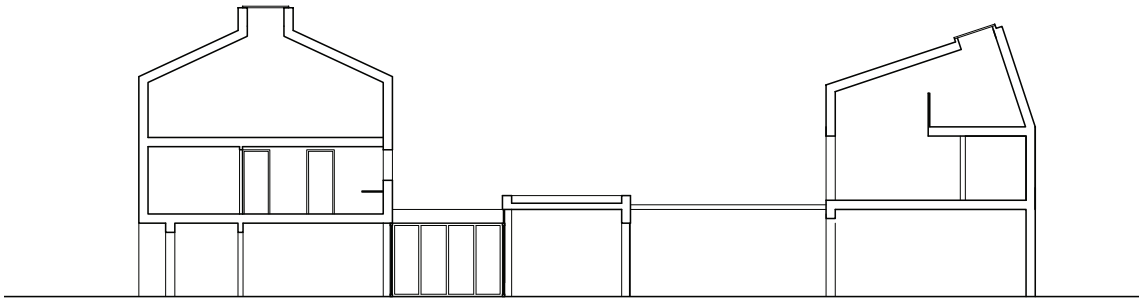


Fig 7.37. Section option 4:
Three storey house and three storey mews (second floor mezzanine).
The mezzanine is reintroduced as a way of reducing the massing to the yard. The mews is given an asymmetric pitch to reduce the impact on the rear gardens.
The house roof form is manipulated to create a light chimney over the main bedroom rather than an apex rooflight. Rooflights to the work space are removed.

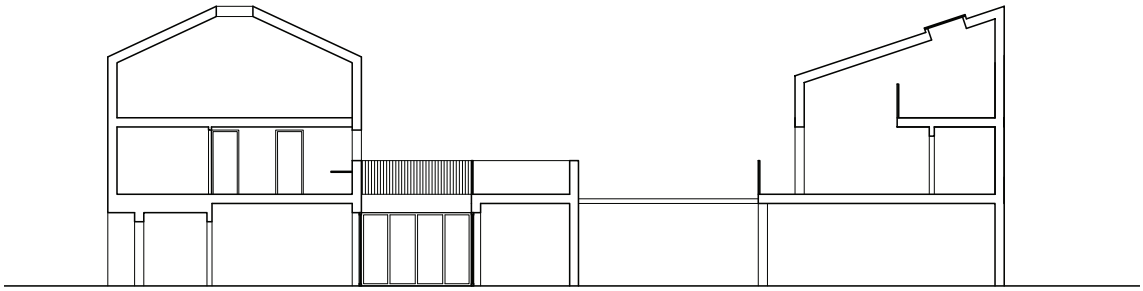


Fig 7.38. Section option 5:
Three storey house and three storey mews (second floor mezzanine).
The mews work space is extended into the yard to create a balcony above, giving both houses outdoor space. The work space for the house is reduced in order to maintain the width of the yard. However, this work space becomes too small to be usable.

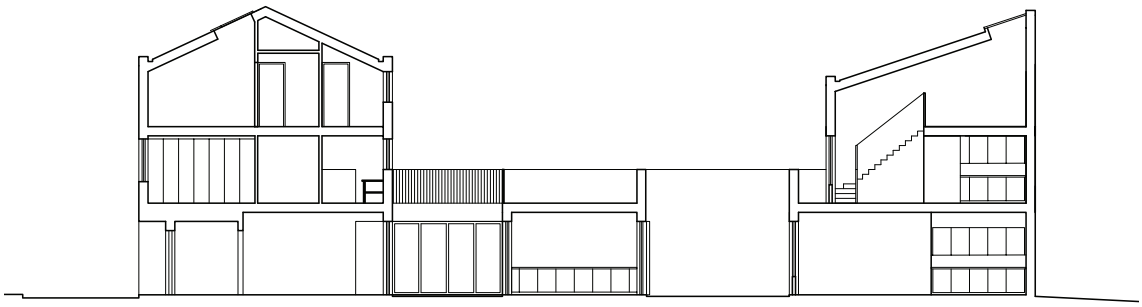


Fig 7.39. Section option 6:
Three storey house and three storey mews (second floor mezzanine).
Both houses have outdoor space as above, but the yard is narrowed to allow a larger work space to the house. Rooflights to the house and the mews are moved to suit the room arrangements below.

7.3.8 Final design drawings

Fig 7.40. Site plan 1:1000

Fig 7.41. Long section

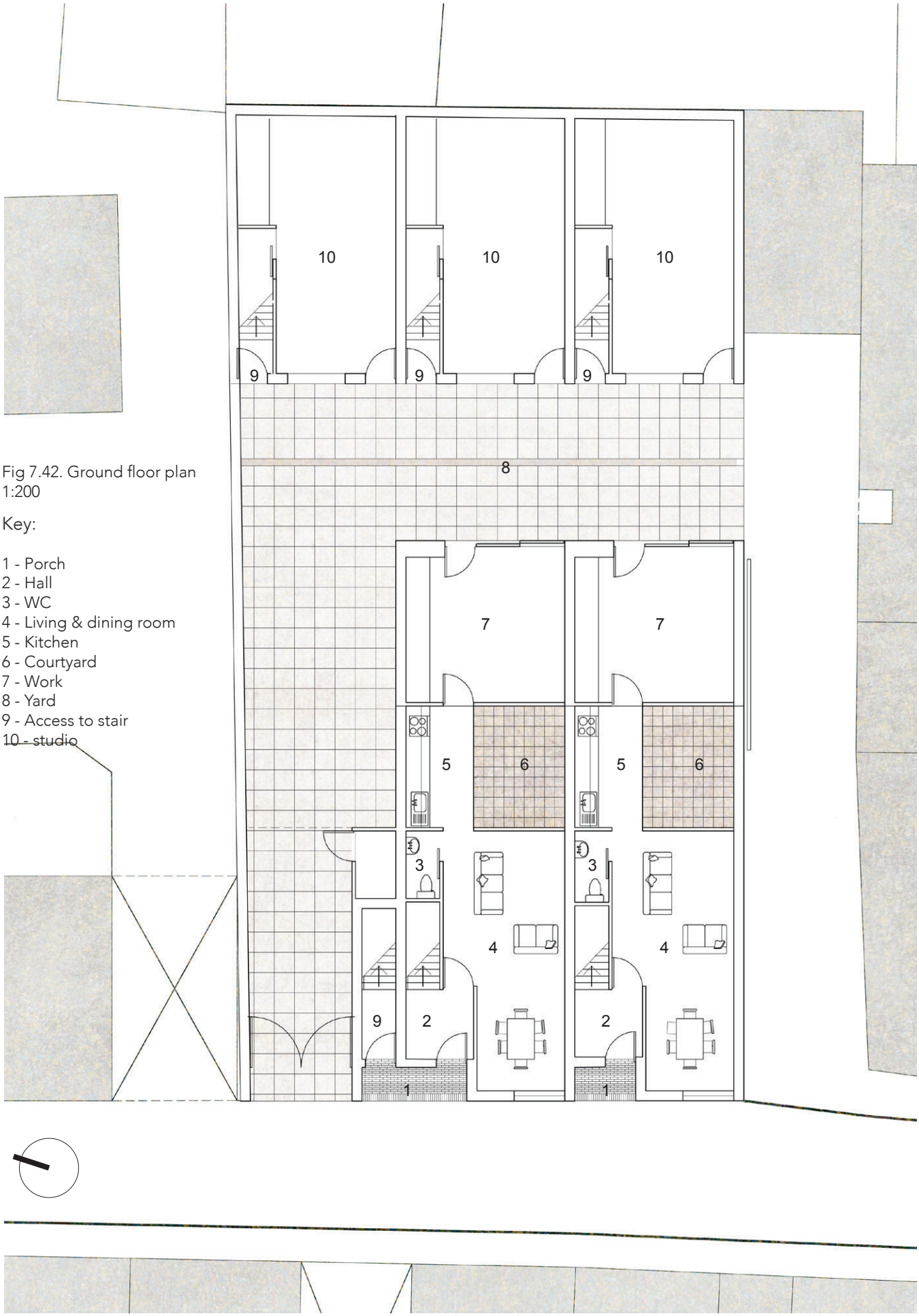


Fig 7.42. Ground floor plan
1:200

Key:

1 - Porch
2 - Hall
3 - WC
4 - Living & dining room
5 - Kitchen
6 - Courtyard
7 - Work
8 - Yard
9 - Access to stair
10 - studio

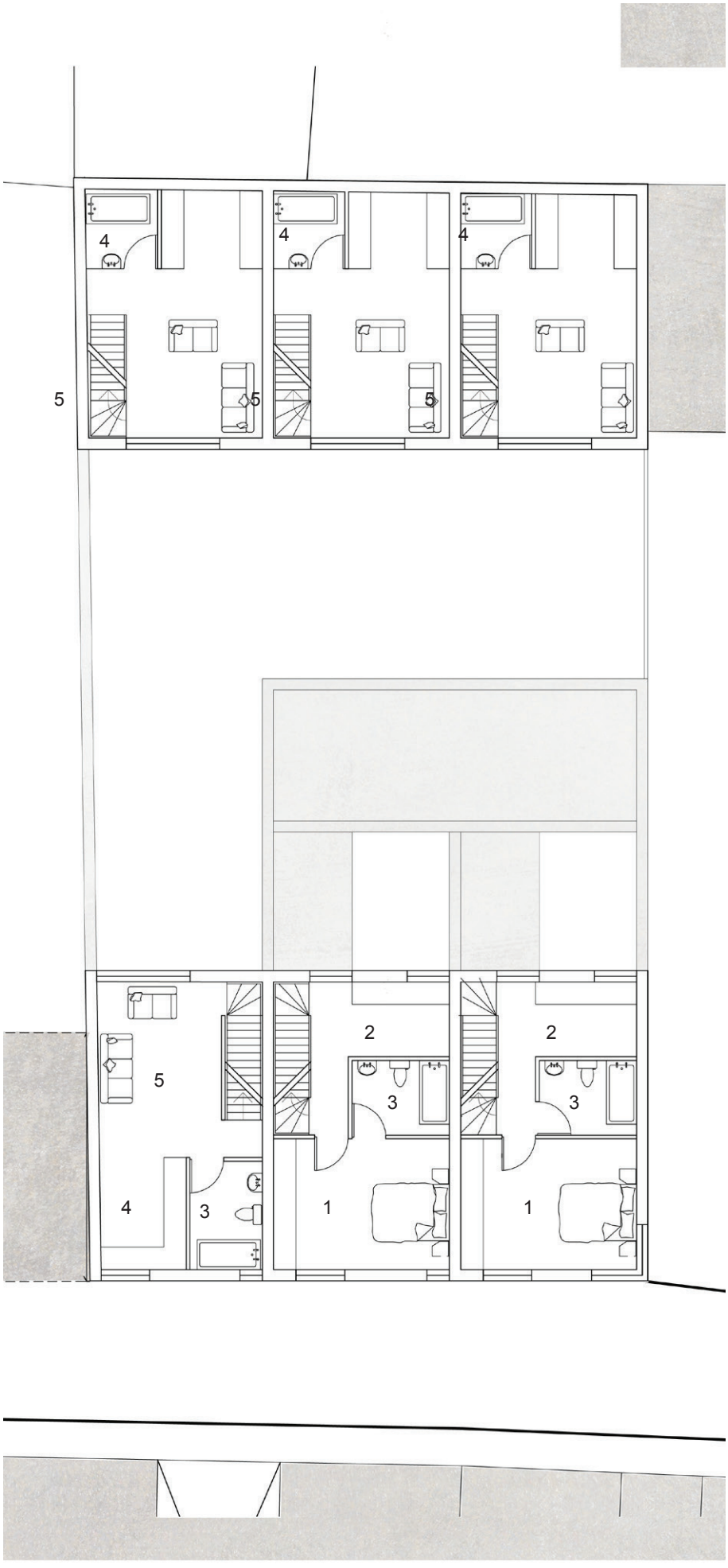


Fig 7.43. First floor plan 1:200
Key:

1 - Bedroom
2 - study/office
3 - Bathroom
4 - Kitchen
5 - Living room

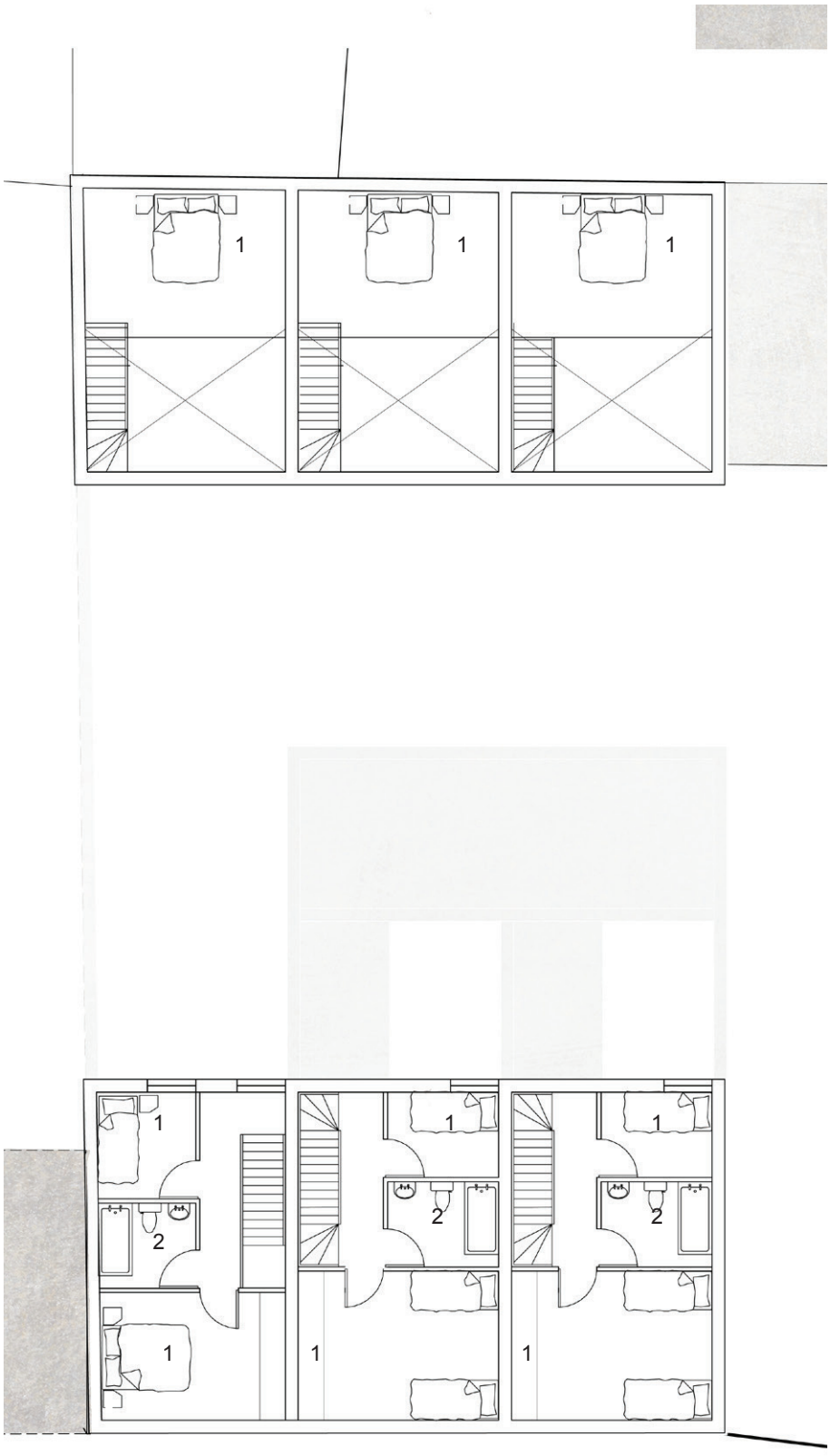


Fig 7.44. Second floor plan 1:200
Key:

1 - Bedroom
2 - Bathroom

Fig 7.45. Street view looking up Raven Lane toward Castle Square

Fig 7.46. The living space in a family home, looking from the living room toward the courtyard

7.3.9 Peer review (21.11.14; Present: Wayne Forster, Bill Gething)

- Design through the operational framework:

- The private outdoor courtyard within each house compromises the public yard, as it restricts the width of this public space. The aim for private space for each house means the yard and the live-work mews are less successful. Examples that achieve density, such as Stephen Taylor's projects, have small pockets of outdoor space supplemented by roof gardens and balconies.
- Lanes and yards (the ways) in Ludlow are like a voyage of discovery- what do you discover in the yard here? The drawings do not communicate the yard as a heart to the design.
- The use of ways & the burgage as a ground notation are successful but these principles are difficult to reinterpret rather than repeat.
- Exploring inhabitation thorugh large scale models is relevant for this project as the use is about living and dwelling. Its use and relevance for later projects with public functions might need to be reconsidered. There may be other more successful ways of exploring this, such as inhabited drawings.

- Outcome and next steps:

- The design of the project represents an 'English Turn' on the modernism of Snozzi, whose buildings sit within the modernist canon in form, material and construction. The project succeeds in taking the spatial principles of Snozzi and inflecting them with an analogical approach- codified into rules from the Smithsons, Sergison Bates and others. However, some aspects of the framework are less well considered; subsequent projects should address all the aspects of the framework in more depth.
- The design aims for intimacy but is hamstrung by regulation, in particular rights to light, privacy and overlooking. Consider ways to circumvent the regulatory framework, for example use of oriel windows, louvres and offset arrangements of living spaces. Peter Salter's Walmer Yard housing offers some routes to achieve this. These could be conceived as 'rules for densification'.

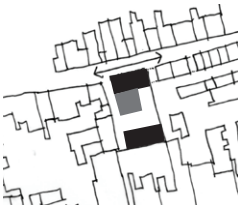
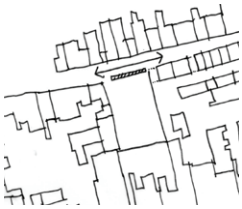
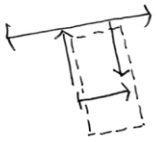
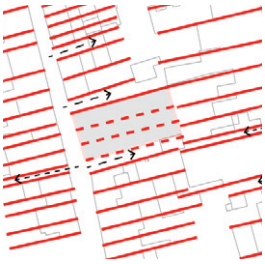
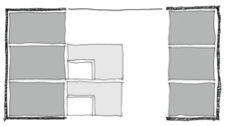
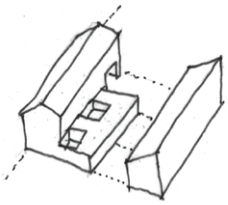
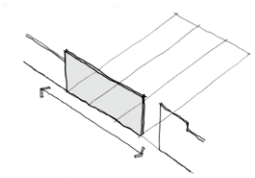
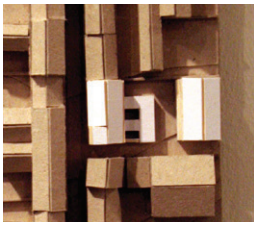
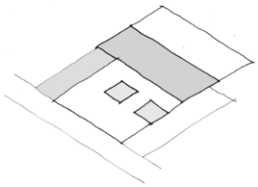
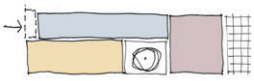
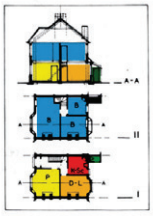
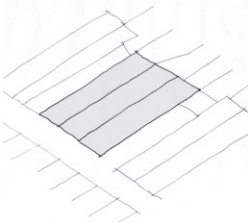
SETTLEMENT			
Defining a centre	**Consolidate and densify** 	**Boundary and edge** 	**Connections** 
DESIGN			
SITE	**ORGANISATION**	**FORM**	**LANGUAGE**
	**Constellation** 	**Abstracted form** 	**Material solidity**
Janus face 	**Volumetric grain** 	**Continuity/Mediation**	**"Quirk"**
Ways 	**Conglomerate ordering** 	**Familiar** 	**Presence**
Ground notation 	**Strategy & detail**		

Fig 7.47. The illustrated operational framework

7.3.10 Review through the operational framework

This section will critique the design through the operational framework (fig. 7.47). It will take each of the themes of the framework in turn and will discuss the design approach before reflecting on the successes and shortcomings of the design response.

Settlement

-Defining a centre:

The design does not attempt to design a centre of its own, but rather supports the historic centre of the town. As is the case in Snozzi's projects, the cumulative impact of a number of infill projects is to support the community and service functions in the town. Introducing different types and mixes of housing, such as family live-work homes and smaller mews houses has potential to broaden the mix of residents in the town.

-Consolidate and densify:

The site was chosen to explore how the town can be consolidated and densified within the dense historic core. This has close parallels to Snozzi's approach of consolidating and densifying the built fabric.

The site chosen is a vacant plot, currently used for parking. The design proposes its infill with a dense live-work development and new public space, introducing a new use to this part of the town and developing a mixed use proposal. This is a contrast to current development patterns in the historic core, which are generally single function. The initial proposal was for three homes on the site, with each home contained within one burgage plot. In developing of the brief into live-work homes, a mews was introduced which increases the number of homes on the site from three to six, and creates a mix of live-work family and starter homes.

-Boundary and edge:

The site reinforces the street edge, consolidating the street and creating a continuous street frontage from Castle Square (fig. 7.48). As is typical in Ludlow's lanes, the strong street frontage has a passageway leading through to a yard.

-Connections:

The site has good connections around it and there is little opportunity for connections across

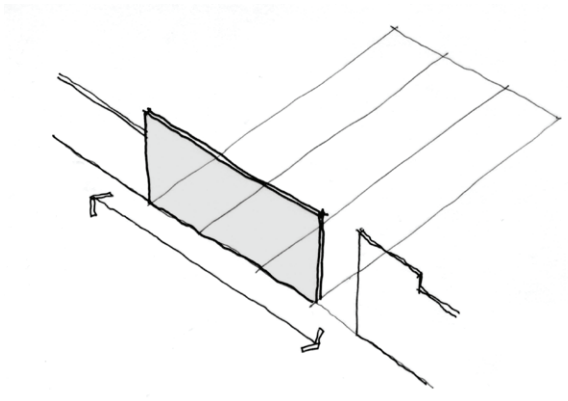


Fig 7.48. Filling the gap in the street

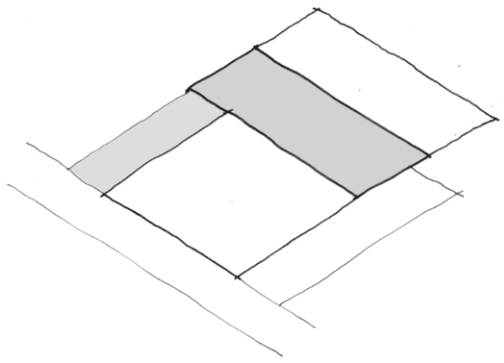


Fig 7.49. Lane and yard

the site. A new yard is created but this is only connected to Raven Lane.

Site

-As found:

The existing site is a vacant plot that is roughly the scale of three burgage plots. These long, thin plots are approximately 5x30m in the southern plan unit. The scheme aims to maintain the burgage as an identifiable and familiar element of the town's character, a pre-existing ground notation. This pattern is reinstated to divide the dwellings up into linear strips. As with surrounding burgages, these host multiple uses, in this case a front live-work house and a rear mews.

The site is typical of infill plots around Ludlow and other market towns. These are often sites going through the fallow stages of Conzen's burgage cycle and are a type of site that is likely to recur and be continually redeveloped, either as new infill or as development on parts of a site. T

-**Janus face:**

Each side of the site has a different condition. The north is characterised by gables, with a separating wall to the boundary line; the east by back gardens; the south by jumbled workshops and a garage facing onto the site; and to the west a well constituted street façade in which the site is a gap in what is an otherwise continuous façade running from Castle Square (fig. 7.48). The design responds to the conditions around the site by creating a strong street edge to Raven Lane a rear mews, with a small yard between. The intention to create a larger mass to the street frontage and a smaller mews behind has not been effective; the wish to accommodate ground floor work spaces in the mews with living space above has meant that these homes needed to be three storeys high to allow for a mezzanine bedroom in the eaves. This presents a large expanse of blank wall to the gardens to the east. This could be considered further to reduce the scale to this edge, respecting the neighbouring properties.

-Ways:

The pattern of alleys accessing yards in the depths of burgage plots drove the decision to create a central yard that separates the front live-work houses from the rear mews (fig. 7.49). There are many as found examples around the town of the regularity of the terraced form being broken by narrow alleyways accessing yards hidden behind the street. This move aims to link the development into this pattern of lanes, yards and alleys and offer a public space for the work

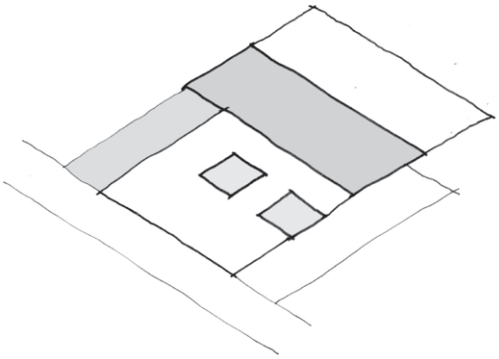


Fig 7.50. Lane, yard and coutyard

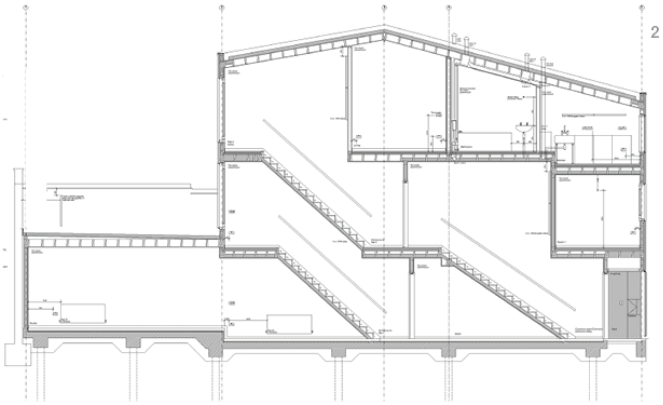


Fig 7.51. Sergison Bates: Coate Street has a rear courtyard to bring light into the ground floor.

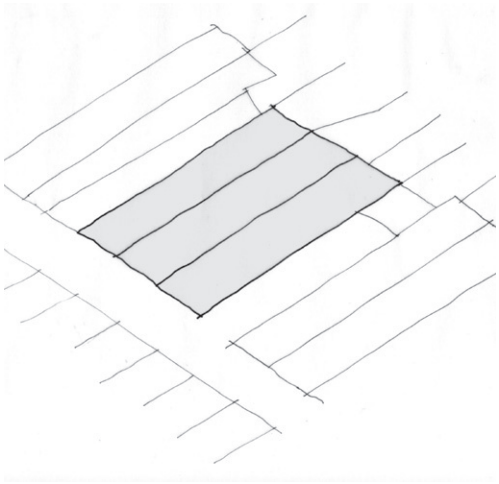


Fig 7.52. Burgage plots.

units to cluster around. Access to the yard is from the northwest corner of the site under the apartment. The yard connects to the south to the lane alongside the site. This links the scheme into the existing context and will increase use of what is currently an underused existing lane.

In order to offer a sense of privacy for the family houses, each has an internal courtyard between the living room and the work space (fig 7.50), with a galley kitchen providing a link between the two. Living is accessed primarily from the street frontage, while working is accessed primarily from the yard. The courtyard succesfully addresses the separation of live and work that Holliss identifies as a common problem in live-work housing.[25]

The introduction of the lane and yard has worked well to create a public space at the heart of the scheme as a focus for the work activities on the site. In review, it was suggested that more of a destination or sense of distinctiveness could be created; elsewhere in the town, the lanes, alleys and yards are a voyage of discovery, with each having a different character. The yard in the proposal is lacking in a unique character, which might make it less well visited. This would also depend on what businesses occupied the work units around the court. Further exploration of the form, material and inhabitation of the yard address this. A further stage of development would be to assess the scales of the lane and yard against the scales of ways in the town; for example, Quality Square (fig.7.12) has a width of 6.5m, whereas the yard at Raven Lane is 5m. A finer grained response to the lane, yard and snicket could further link the design to the context.

The introduction of the courtyard within the live-work house aimed to give the house a private focus and separate the living and working elements of the project. This was effective in Sergison Bates' Coate Street (fig.7.51) where a ground floor courtyard introduced light into an otherwise deep plan. However, in the context of the whole site, the courtyard within the house compromises the scale and proportion of the yard. The aim for private space for the house means the yard and the live-work mews are less successful and the yard has the scale of a lane; maximising the habitable space has impacted detrimentally on the quality of the public space. This makes it less of a successful place, as the proportions of the space do not evoke the memory of other yards in the town.

-Ground notations:

The design reinstates three burgage plots on the site and develops these as a range of scales of home, with two homes within each burgage plot- a family home addressing the street and a mews starter home (fig. 7.52).

25 Frances Holliss, The Workhome: Public/private (London: London Metropolitan University) <http://www.theworkhome.com/public-private/> [accessed 02.09.15]

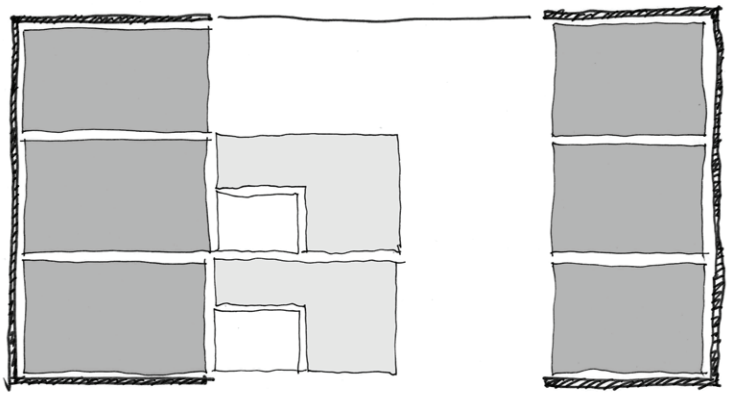


Fig 7.53. Constellation of building elements within a brick skin

Reading the existing ground notations to inform design was effective as the scale of the houses repeats the existing pattern and fits the scale of development in the historic fabric. However, the strong nature of these notations makes them difficult to creatively reinterpret rather than repeat. The design follows the burgage plot rigidly; it defines the parti wall lines between each house, as the burgage plots do elsewhere in the town. This rigidity could prove limiting if either larger or smaller plots were required. Ways to break the ground notation or critically reinterpret it could be explored further.

Organisation

-Constellation:

While there are primarily two parallel rows of houses, the constellation has been influential on breaking the form of these homes, in particular the family homes, and in the consideration of the constellation of spaces within the homes. The introduction of the private courtyard separates the living and working spaces while allowing visual connections between them (fig.7.53). This is successful and creates a private focal point for the ground floor of the homes. Around the ground floor courtyard is the living/dining room, a galley kitchen and the work space opening on to the yard. At first floor level are two bedrooms and a bathroom, with access onto the a roof deck on the work space. At second floor level, rooms are open to the roof; here is located the master bedroom and a small single bedroom or office. The mews house is similarly a three storey building, but the third storey is a deck at the back of the plan, facilitated by a monopitch roof. At ground floor level is a studio space with a kitchenette and separate access to an apartment above. This has a compact open plan living room and kitchen at first floor level with a balcony overlooking the yard and a bed deck above.

The mews achieves a small-scale live-work unit in a small footprint. The vertical separation of living and working is effective, raising the living spaces above the public courtyard. The link between the two spaces could be improved; currently, the living space must be exited to enter the work space, whereas a similar inset paired doorway or a connection between the stair and work space could be of benefit to the live-worker.

-Volumetric grain:

The aim was to fit the proportion, scale and sense of containment of the historic town at a human scale. The use of the familiar form of house and mews achieves this goal.

The scale and volume of the dwellings was developed through models that tested the mass

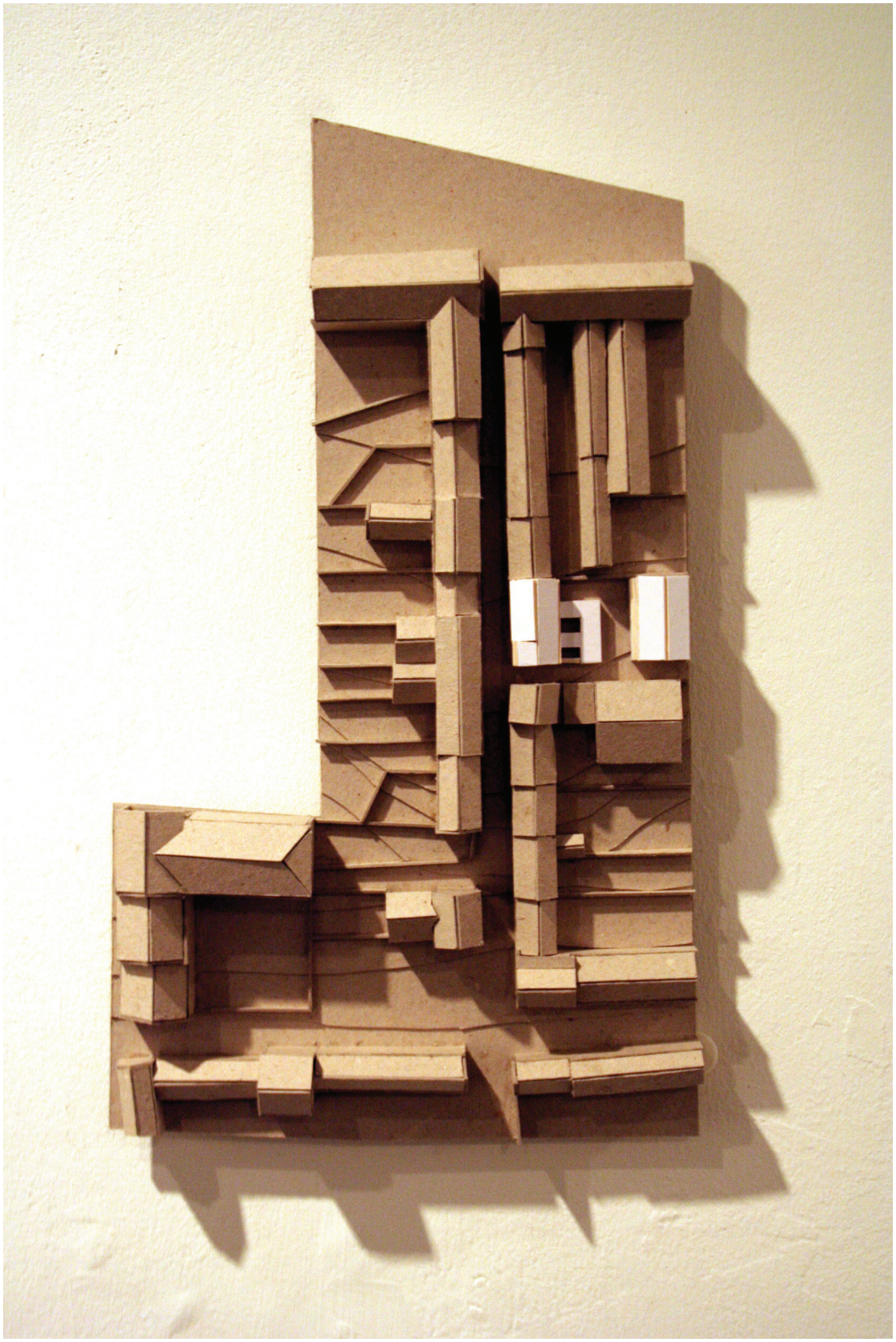


Fig 7.54. Volumetric grain tested through a model and exhibited at Reflecting Wales 09.09

of the building in relation to the surrounding at 1:500 (fig. 7.54). Working through models that tested the scale and mass of the buildings in the context allowed the volumetric grain of the project to be measured and adjusted. Various approaches, from a single linear block to a deeper plan form to a house and mews were tested, before the house and mews was selected for its familiar connotations and the appropriate scale.

The volumetric scale of the project fits the grain of the town and is appropriate to the site, but could be refined further. For example, the depth of the houses is deeper than the surrounding terraces and the massing of the mews house is perhaps too high at the rear of the site. The mews in the stage 1 design proposal had more of the characteristics of a traditional mews, with a taller house tot he street and a lower mews cottage behind. The need to have a work space at the ground floor of the mews led to its massing being increased; perhaps reconsidering the need for this or other ways of combining uses of space to reduce the mass could be explored further.

The roof form of the mews has been developed to allow a mezzanine bed deck within the roof space. The monopitch roof would impact on the dwelling to the east of the site, which would be confronted with a blank wall that is nearly three storeys high. This needs further exploration to see if the three storey mews can be integrated more successfully into the backland plot.

-Conglomerate ordering:

The design has a material wholeness through use of a red brick. Individual houses are legible only thorugh the repetition of doors and windows. The houses are designed with a service spine containing the stairs, WC, storage and kitchens in a clearly identifiable zone along one edge of the house (fig.7.56). This has the benefit of repeating on all floors, creating a clear and legible layout to the homes. Front doors from the street are recessed, increasing privacy and creating sheltered entrances. This entrance zone defines the service spine which extends through the house, including the stair, WC, and kitchen (fig.7.55). This is a legible element in the building, representing a sense of conglomerate order and simple circulation through the building.

The hierarchy of space and the entry sequence to the live-work houses is effective. The inset doorways create an intermediate space between the public and private realm, and the irregular repetition of these creates a sense of difference to the façade. The entry sequence to the apartment is less successful, and could be improved as the stair is narrow and there is little sense of arrival.

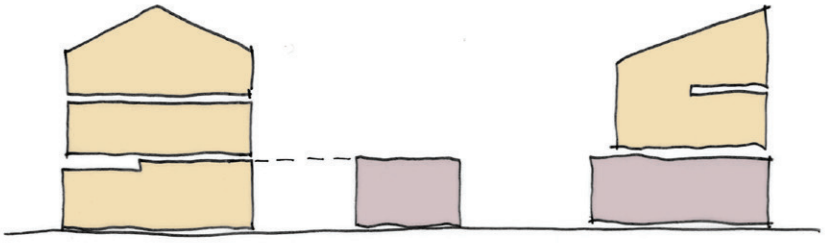


Fig 7.55. Conglomerate order in section showing horizontal separation of live and work in the family houses and vertical separation in the starter homes.

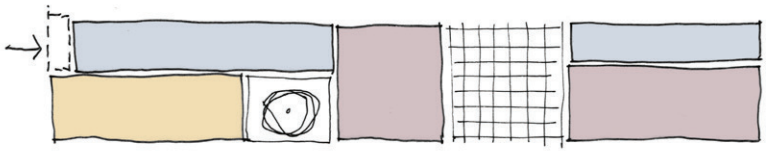


Fig 7.56. Conglomerate order in plan showing the service spine to the north, living space to the street and work spaces around the yard

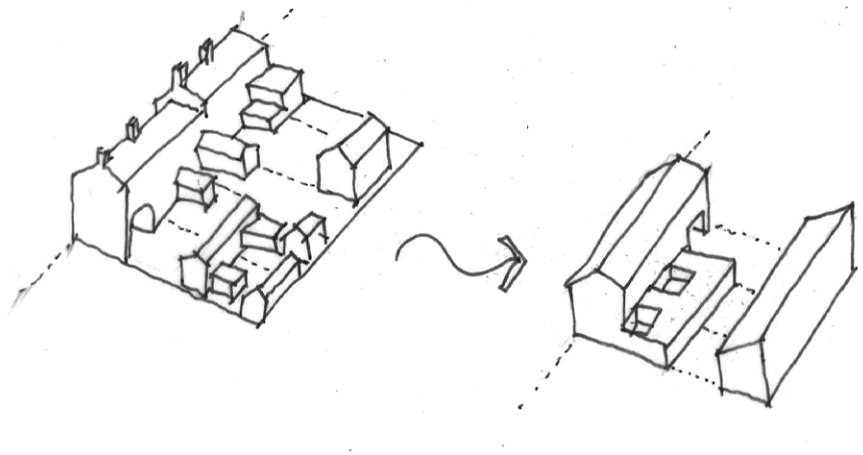


Fig 7.57. Abstracted form

-Strategy & detail:

The use of strategy and detail, working at both large scale model form and in the context model, was successful in testing ideas and combining volumetric and experiential studies. However, the material and detail of the design was not tested beyond a visual representation of the building in context. A closer investigation of the construction, material and detail is necessary to explore the material solidity and presence of the building. While the perspective view is evocative and suggests that the building fits its context, without closer investigation of details such as the window reveals, entrances and the lane between the mews and family homes, this does not go beyond a surface representation.

Form

-Abstracted form:

The abstraction of the typical terrace house and mews form is maybe a too common form of building and not specific enough to Ludlow. A deeper and more in depth understanding of form and detail that could be abstracted might help link the building form to its place more successfully.

Here, this recognisable from has been simplified and stripped of detail, with a parapet concealing the gutter and simple timber fenestration. However, the building is not abstracted in the manner of German-Swiss architecture, but is perhaps an English realist interpretation of the surrounding context.

-Continuity/mediation:

The building is a contemporary take on a burgage development. It has a sense of continuity with the surroundings through material and formal similarlties. While it introduces live-work spaces to the town, the brief does not offer a critique of prevailing conditions. Perhaps a more challenging brief to address issues the town faces such as affordablility or an aging population would have explored a project with greater potential to transform the historic core.

-Familiar:

The buildings have a formal simplicity that is drawn from the surrounding context. Terraced house forms dominate the surrounding area: pitched roof building forms lining the street, with less constrained forms in the depth of the burgage.

The sectional form underwent multiple revisions and adjustments to test the proposal against the context and the image of the familiar pitched roof that was wanted. To the south, a three storey neighbouring block suggested the building could be higher to this end, while to the north the neighbouring buildings, which the proposal abuts, are two storeys. Variants explored how to introduce light at the apex of the roof and how to maximise the volume, while maintaining a careful relationship with these neighbouring buildings. The final form resorted to a simple pitch form for the live-work houses and a monopitch to the mews houses. Despite the slope, the roof line is continuous, achieved through compression of spaces in the northern house and the comparatively low height of the alley. Stepping the form of the building was explored but this disturbed the simple abstract form that was wanted. This has similarities to Snozzi's approach of using an orthogonal form to highlight changes in landscape.

The simplicity of the pitched roof form with a strong street presence and a reduced scale within the plot is reminiscent of terraced house forms in the town and further afield.
While the form references the typical forms of the town, it does not feel particularly tied to its place.

Language

-Material solidity:

The proposal act as an end stop on the continuous terrace from Castle Square. This brick terrace informed the material choice, and the chosen red brick relates the design to neighbouring buildings (fig. 7.58). The brick is applied across the external treatment of the design. The simple and familiar forms are stripped of detail, with a brick parapet concealing the gutter and minimal detailing to entrances and reveals. Internally, the brick parti walls are exposed but painted, creating a direct construction that is legible and understandable.

The material palette of the proposal is closely linked to its place. A use of everyday materials that reference the surrounding is successful. However, their consideration in detail has not been explored so how this would be realised in practice is lacking. Similarly, the direct application of construction and materials in a legible way has potential to be successful; however, this has not been explored in adequate depth to demonstrate this.

-Quirk:

Simple moves such as the corner window to the south articulate the form and suggest quirks or gestures that relate the building to its site. However, this has not been explored as much as it

Fig 7.58. Furness Brick's Chapel Blend, a red brick with a similar tone to Ludlow's red brick buildings.

Fig 7.59. Limed oak windows.

could be. Areas such as porches, and railings have potential for personalisation and allowance for quirks; this could be developed further. Further quirks could be developed in response to the site, for example in relation to ways or addressing the relationship between the buildings across the yard. This could also address potential overlooking or daylighting issues, for example by introducing oriel windows.

-Presence:

A sense of presence is created as part of the wider fabric of the town, rather than through the building in its own right. The use of everyday materials such as brick and timber windows adds to the grain of the town, rather than contrasting with it. The approach also suggests that through working simultaneously inside and out there could be a marked difference between internal quality and the external appearance; in this case a simple brick form that conceals a fractured plan with a private courtyard within.

The sense of presence is not as successful as the connection to ways or ground notations; the proposal does not demonstrate how it could achieve a direct emotional impact. However, there is an argument that housing should be a background building to enable everyday life, and therefore its presence may be realised in other ways to its sculptural form or abstract nature. Diener and Diener's Wartekhof complex in Basel achieves what Martin Steinmann calls a '*general form*' that achieves abstraction through neutral expression, through buildings that are *"familiar, yet detached, ghost-like, with a deadpan expression against the everyday bustle"*[26]. In this sense, the design has the presence of a 'general form', articulated through connection into the ways and routes around the site and a composed elevational strategy.

26 Irena Davidovici, ibid. p.138.

Fig 7.60. New development in a vernacular style on the corner of Raven Lane and Bell Lane.

7.3.11 Findings

During the course of the thesis, a vacant plot at the corner of Raven Lane and Bell Lane has been infilled by a private developer (fig.7.60). The outcome is a pastiche historic development that does not strengthen the town. It creates a courtyard on the corner of its plot at the junction of Raven Lane and Bell lane, which is used for car parking, with a wall to the street rather than built forms. The language and material is a pastiche of the local vernacular: a mix of half-timbered medieval houses, Georgian townhouses, and finished with dormer windows, brick garages and stone boundary walls. The layout creates a parking court on the corner of the street around which the buildings located, creating a weak frontage that does not respond to the patterns of development in the historic core.

Opposed to this, the Raven Lane live-work proposal looks to introduce new uses to the historic fabric, bring density back to the town and create a contemporary interpretation of the context that is mediatory rather than preservative. The design aims to connect into the pattern of yards and lanes around the site, reinforce the street and use familiar forms, all moves that aim to relate the building to its surrounding context.

The approach in Raven lane took Snozzi's method and applied a predominantly English turn to it; this prioritised the familiar, as found, strategy and detail and ways over the elements of the operational framework derived from Swiss-German architecture. While not a conscious decision, this perhaps suggests that these may be most applicable to the infill site, where the relationship with the immediate surrounding requires careful consideration.

Strategy and detail was expressed through models, exploring the mass and volume of the building in its wider context at 1:500 and how the building was inhabited through a 1:20 model of the main open plan living and dining room of a family house with the courtyard beyond. This large-scale model also starts to suggest a way of exploring presence and solidity and may be applicable to later projects.

The ways introduced to the site do not tie effectively into the network in the town nor do they respond to the scale of ways in the town. The lane and the yard have a very similar width, the main difference coming from the sense of enclosure. The use and material of these were similarly not explored. These ways need to be explored further in the next design project to further knit them into the existing fabric.

The consideration of presence, material solidity and abstracted form were not considered as thoroughly as they could have been. Construction and material choices were surface decisions only, and did not get to the scale and detail required to test the creation of presence and effect.

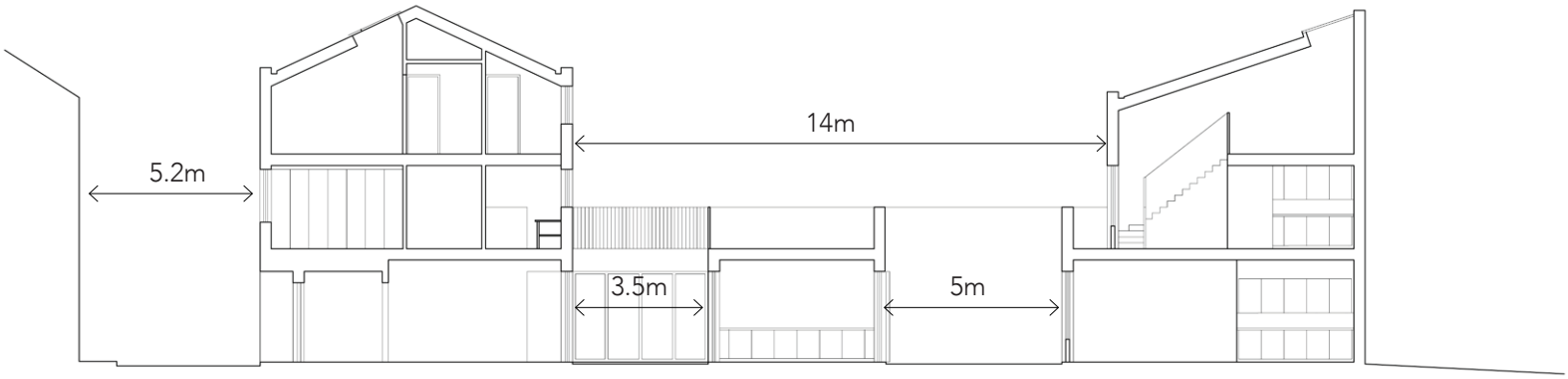
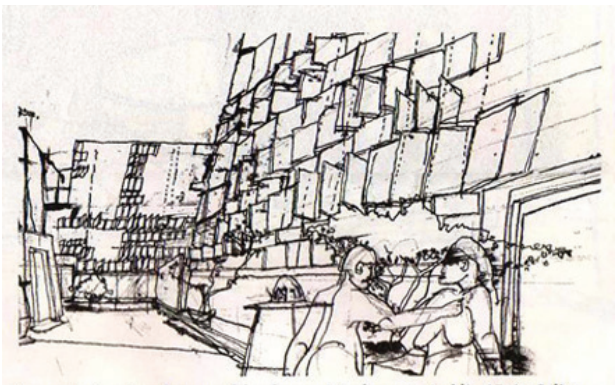


Fig 7.61. Proximity between the buildings.



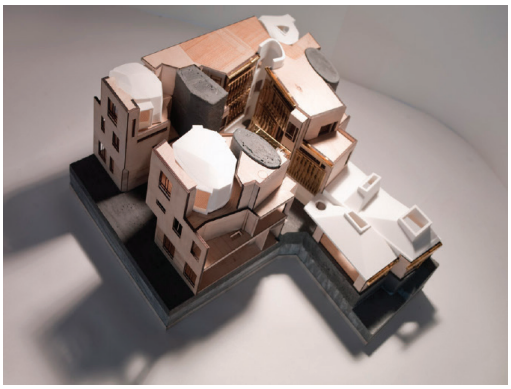


Fig 7.62. Peter Salter, Walmer Road perspective and model.

The design aims for intimacy and a sense of proximity between buildings. While this increases density and reflects the nature of development in the historic town, this might prove to be a difficult challenge to resolve within planning policy (fig. 7.61). In order to achieve this, further mitigation measures would need to be explored, for example use of oriel windows, careful consideration of openings and care with the location of habitable rooms. Further consideration of access to daylight is required if proximity becomes an important factor. Precedent such as Peter Salter's Walmer Road housing in London (fig. 7.62) demonstrate that it is possible to build with proximity while maintaining privacy. Here, use of rooflighting, private yards, shutters, cowled windows and offset living spaces mean that an intensely confined site has been designed to contain four houses and shared access courtyard.

As with the discussion of proximity, the application of regulations to the project would impact on some aspects of the design. Of particular note is the scale of some of the spaces created when compared to housing standards such as the '*London Housing Design Guide*'. Particularly in the case of the news houses, room areas are below the requirements for the kitchen and bathrooms. A similar consideration of '*Lifetime Homes*' highlights the lack of a sizable bathroom at ground floor and the use of winding stairs as unacceptable. Here the proposal of creating density is at odds with statutory requirements; this would require negotiation with the local planning department to resolve these issues.

The design was explored through two different scales of model; the context model, exploring the mass of the buildings in relation to their surroundings, and a larger scale inhabitation model that explored the internal living space of the proposal. This approach attempted to explore the spatial and experiential aspects of the design alongside its morphology. Developing the project through orthographic drawings such as plans and sections followed these explorations of context and image.

While these two scales of model have been effective, the drawings of the design do not demonstrate the sense of place. The section and plan drawings show limited context and inhabitation. In particular, drawings that demonstrate the scale of the yard and how it is used should be added to demonstrate that the space is functional and has a sense of place. The yards in Ludlow are distinctive and each has a unique scale, sense of enclosure and range of uses. Drawings that demonstrate what the space would be like to be in should be explored further in the next design proposal.

- Summary

The design presented explored densification of the historic core through live work homes

designed through the application of the operational framework. While successful in some respects, the outcome was more successful in the English realist aspects of the framework than the German Swiss aspects. The following section tests the operational framework through a public building located on a site that is on the edge of the historic core but close to the market square, where omissions in design through the framework in Raven Lane are addressed and the framework is tested in its totality.

Fig 7.63. Approach to Ludlow Food Centre from Castle Square

7.4 LUDLOW FOOD CENTRE

7.4.1 Introduction

This final design study undertaken in Ludlow follows a phase of mapping and a first design project, Raven Lane live-work housing. The design process follows the operational framework identified through the literature review and outlined in the methodology. The previously discussed Raven Lane Live-Work Housing tested the framework through a small scale infill housing project embedded in the historic core of the town; this design aims to test the framework on a large scale public building on the edge of the historic core.

This project takes an example of the second type of site identified through the mapping process- the edge site. The site is located close to Ludlow town centre but also located at the norther edge of the historic town, with an escarpment to the north where the town drops away to the surrounding hinterland. The site is currently a vacant back land plot used as a public car park but with panoramic views to the north. It offers the opportunity to create a new public building that defines the north edge of the historic town core, strengths the skyline and links into existing and new routes through and around the town centre (fig. 7.63).

The design has progressed through an iterative design process, including three formal reviews, each providing peer review and reflection-in-action. Furthermore, the project has been subject to personal and tutor reflection-on-action as it has progressed.

7.4.2 Site as found

The site is a back land site at the rear of the town square. It is on the northern edge of the ridge between the castle and church with a steep fall from the site to the north offering panoramic views across the hinterland. This is the line of the demolished medieval town wall, of which no evidence remains; a pavement and a low wall now provide a boundary to this edge of the site. The site falls gently towards the north to this wall, before dropping dramatically away to the hinterland.

The site is accessed from the south through a lane from Castle Square alongside a Georgian townhouse (fig. 7.64 and 7.65). To the west is a bowling green and area of vegetation alongside the curtain wall of the castle. To the south of the site is Ludlow College; three pavilions of two storey teaching space immediately bound the site. To the east are the gardens of burgage plots along College Street and the flank of a two storey apartment building. A single storey public

Ludlow College
16-18+ age range
Food courses based at Castle Square Campus- diploma in professional chef/cookery.
Mortimer's- a 32 cover restaurant

Assembly Rooms
Arts & Community centre
300 seat auditorium, 200 & 100 capacity studios, 30 capacity meeting room
Films, music, comedy, art, dance, drama.

Ludlow Library
Public library
Museum resource centre
Gallery exhibition space
Meeting rooms
Visitor information

Ludlow Food Centre
Farm shop/delicatessen
8 production kitchens
Conference centre
Cafe/restaurant
Apprentice scheme

Fig 7.64. Site context and notable uses around the site

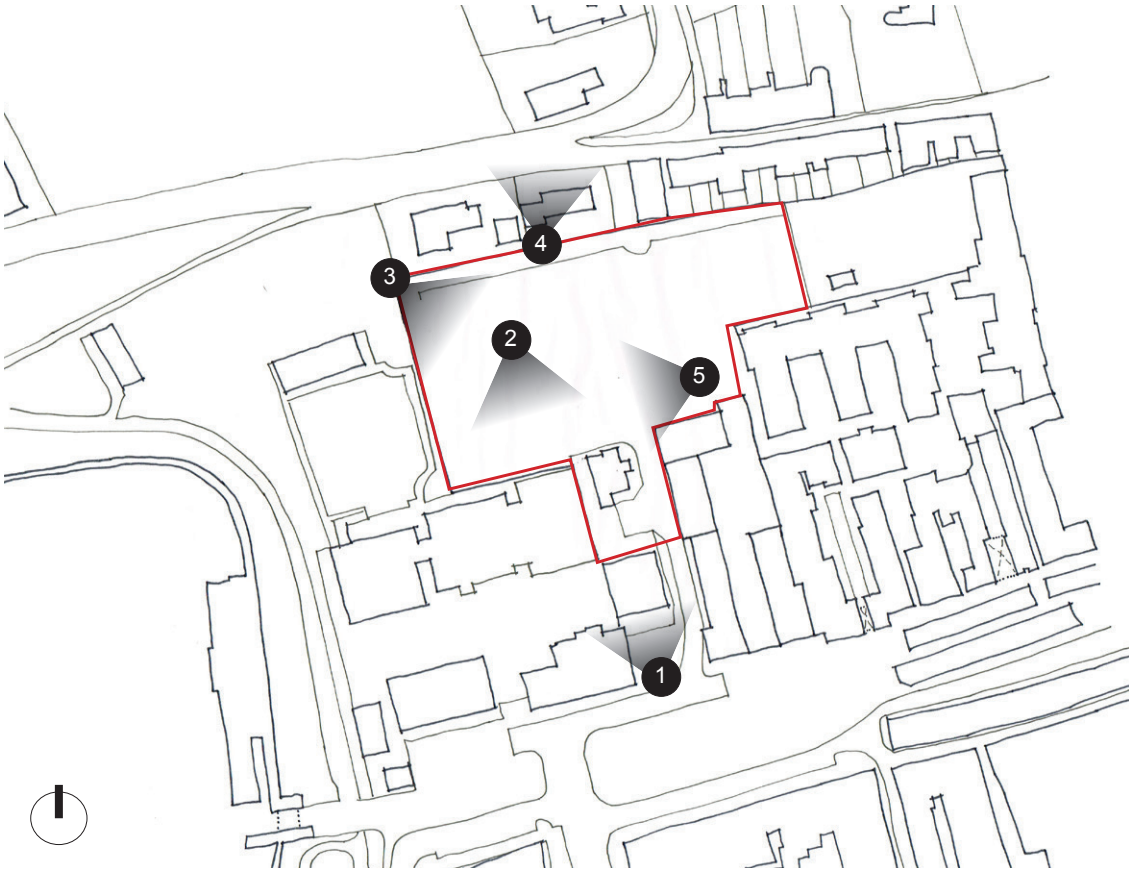


Fig 7.65. Site plan and views

convenience is the only building on the site, which is to be demolished as part of the design proposal (photographs of the site can be seen in figs. 7.66- 7.69).

7.4.3 Brief

The proposal takes as its starting point the importance of food to Ludlow and its role in the distinctiveness of the town. The town is well know for its food festival, held in the autumn each year, and was the first Cittaslow[27] member town in the UK. Further initiatives such as the Magnalonga food and drink walk, a monthly farmer's market, Ludlow 21 food and drink group and the Local to Ludlow campaign for local food sourcing have sustained Ludlow's reputation as a food centre. Ludlow has hosted a Michelin starred restaurant since 1995 and Ludlow College has a small training kitchen offering a Professional Chef diploma. Outside the town on the Oakley Farm Estate is Ludlow Food Centre, a farm shop, restaurant with rooms, production kitchens and café, offering locally sourced produce and handmade food.

While the initiatives described above contribute to sustaining food as a distinctive feature of Ludlow, the town lacks a focal point for this activity. The proposal is to create a central food centre that brings together these strands of activity in a major public building and associated public spaces. The core of the brief is a food hall for retail of local produce, supported by additional culinary teaching spaces for Ludlow College, training canteens and small-scale food production units. This is seen as three linked but potentially separate zones:

- Food Hall: A retail hall selling local produce.
- Training: Linked to Ludlow College, this will include a teaching kitchen, classroom, ancillary offices and a number of training canteens serving food to the public.
- Processing: Small-scale food processing units offering start-up business space for food related businesses and food processors.

27 The Cittaslow or 'slow city' movement aims to encourage town residents to live and enjoy life at a human pace through conviviality and sustainability. Cittaslow provides a series of 55 goals that aim to involve the local community in taking practical actions to enhance the environment, infrastructure, local products, hospitality, and profile of their town.

Fig 7.66. View from Castle Square

Fig 7.67. View toward Ludlwo College and Castle Square

Fig 7.68. View acrioss the site from the western edge

Fig 7.70. View north from the site acrss the hinterland

Fig 7.69. Site photographs and views

7.4.4 Site Analysis

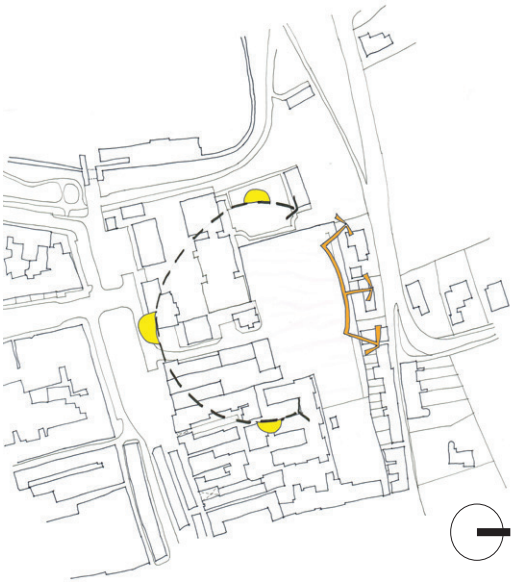


Fig 7.71. Sunpath & View: The site has an aspect to the north over the hinterland. To the south, buildings such as Ludlow college will overshadow the site durting winter.

Fig 7.72. Pedestrian access: The site is accessed along a lane from the market square, between two existing buildings. This is currently used for vehicular and pedestrian access to the car park.

Fig 7.74. Green space & vegetation: The site is a tarmac car park. To the west is a bowling green and beyond this the castle wall. The surrounding slopes are wooded and fall steeply to the hinterland.

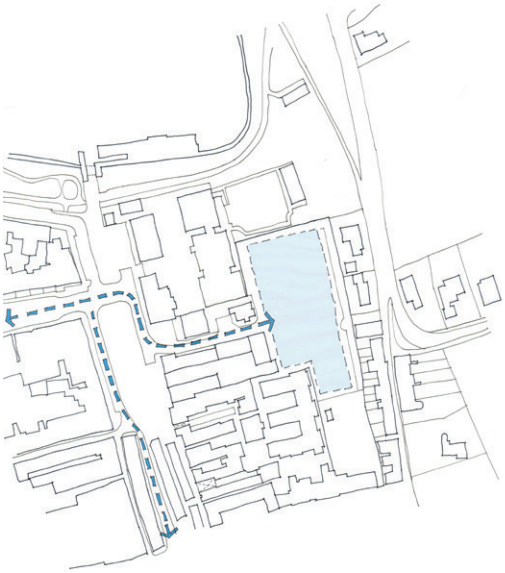


Fig 7.73. Vehicle access: The site is a car park, used by visitors to the town centre. It is accessed through a lane from the market square.

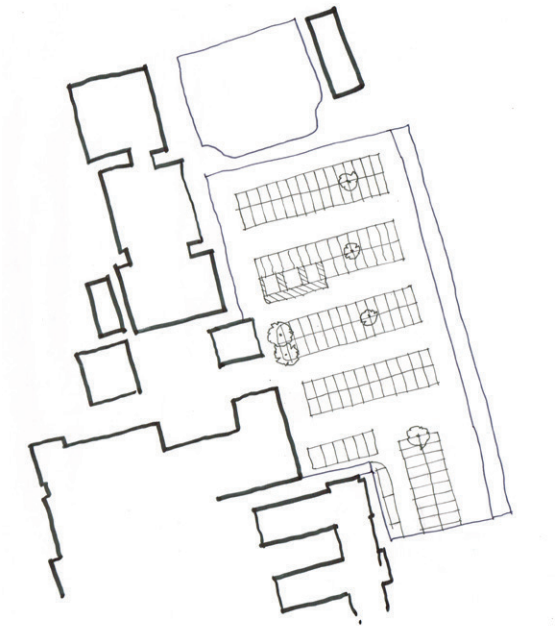


Fig 7.77. Existing condition - car parking: The site is a car park serving the town centre. While beneficial for visitors, the use as a car park does not support the character or sense of place, particularly when viewed from the landscape.

Fig 7.75. Burgage plots: The underlying grid of the medieval burgage plots is evident in the buildings along the market square but is lost on the existing site. The college buildings to the south west do not follow the burgage pattern and the medieval grain fragments across the site.

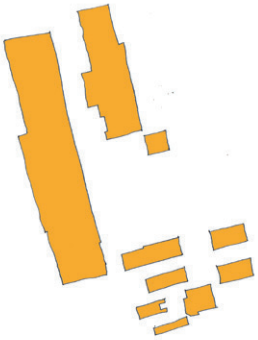


Fig 7.76. Square, Court, Yard: Around the site exist a network of squares, courts and yards that could be extended across the site.

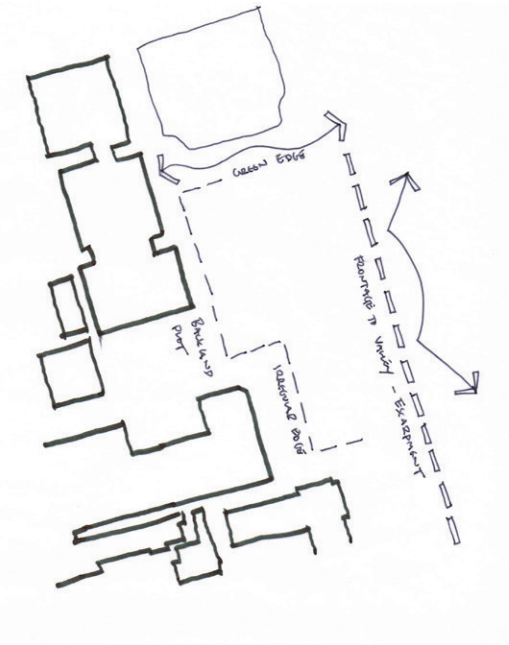


Fig 7.78. Janus face edges: The site has two distinct characters: an escarpment to the north, overlooking the hinterland; and a built up 'backland' with a mix of building ages, types, scales and materials.

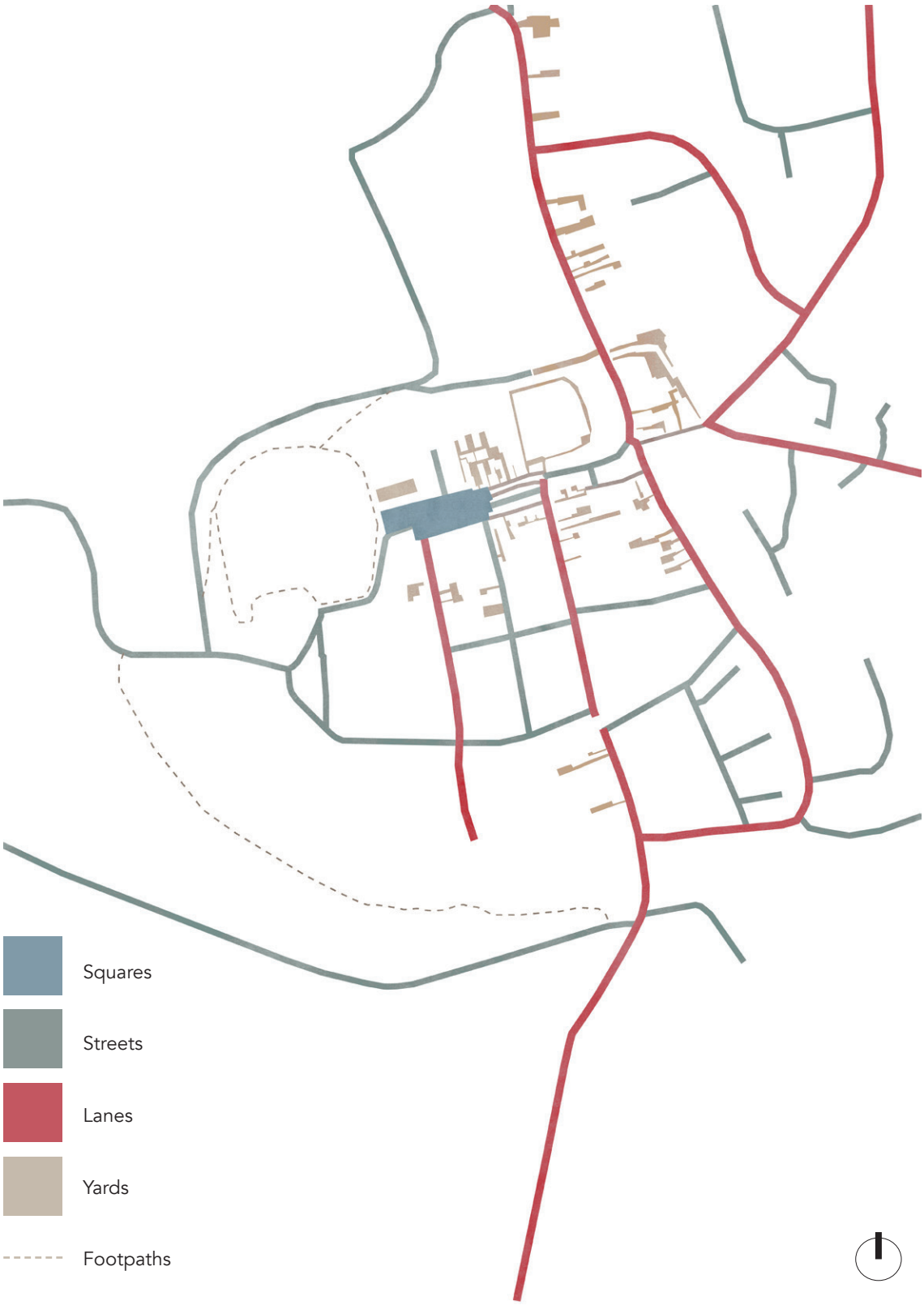


Fig 7.79. Ways: A regular grid of streets and lanes characterise the planned southern zone of the town. Within the medieval core, a network of yards accessed by snickets exist within the depths of burgage plots, behind street facades. These often interconnect, forming shortcuts pedestrian cut through's around the town. More recent additions on the outskirts of the medieval core are identifiable as cul-de-sacs and lanes that do not interconnect.

7.4.5 Extending the mapping process

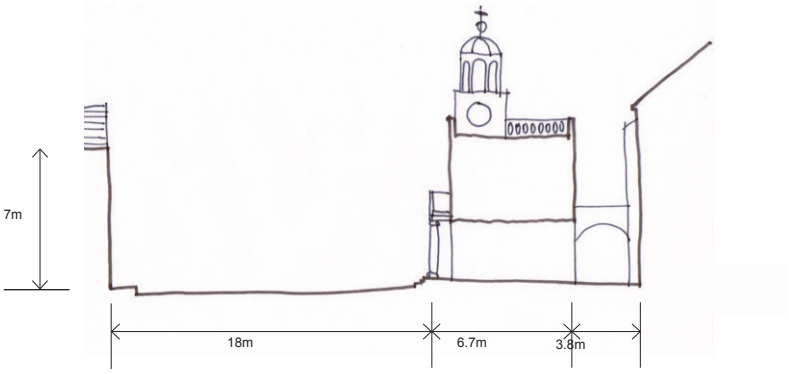
As part of the design process for the Ludlow Food Centre, additional mapping exercises were carried out. The limits of working with only a high level and two dimensional plan view of the town were exposed through design development of the project. The additional studies addressed shortcomings in the mapping process when designing at the scale of the building.

Two main shortcomings were identified:

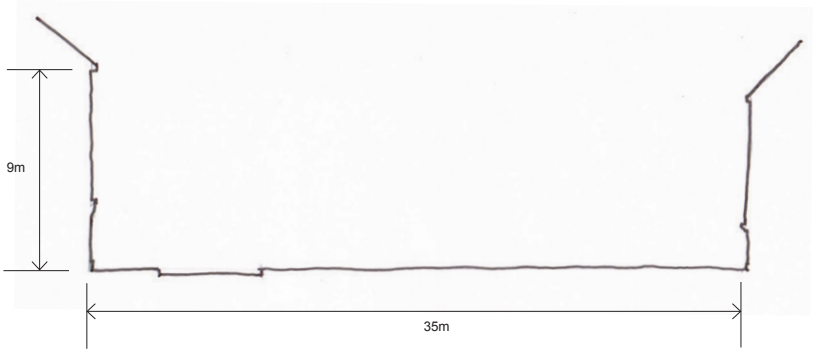
- Ways and connections: Exploring the types and hierarchy of ways found in the town; their scale and proportion (figs. 7.79- 7.80).
- Form, materials and construction: Exploration of the typical forms and materials found in the town and their combinations (figs. 7.80- 7.84).

The following pages illustrate the additional mapping carried out as part of the Ludlow Food Centre design.

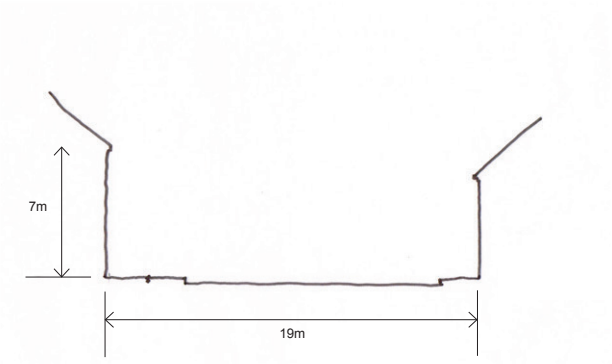
Small Square : Butter Cross



Large Square : Castle Square



Street : Corve Street



Street : Mill Street

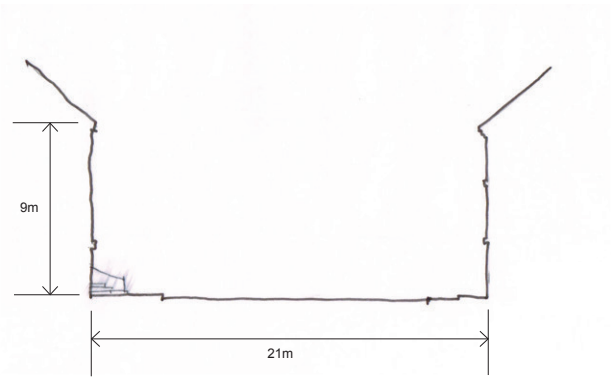
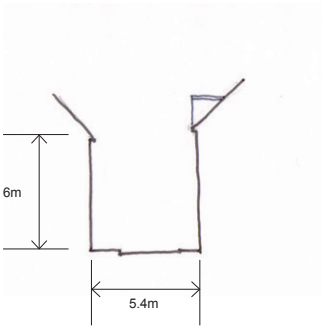
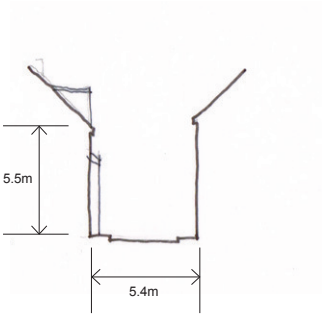


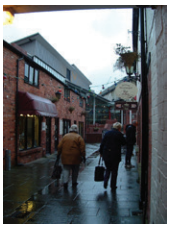
Fig 7.80. The scale and proportion of identified ways.

Lane : Brand Lane

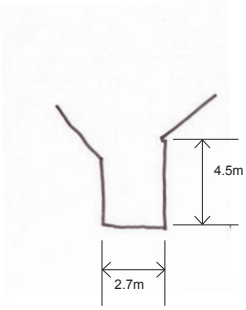


Lane : Raven Lane

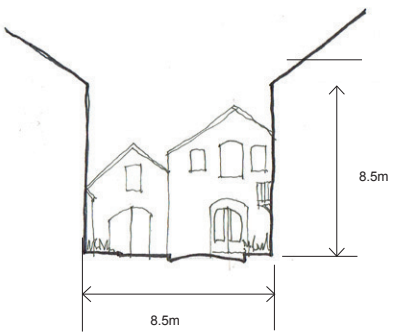




Yard : Wood Yard



Yard : Quality Square



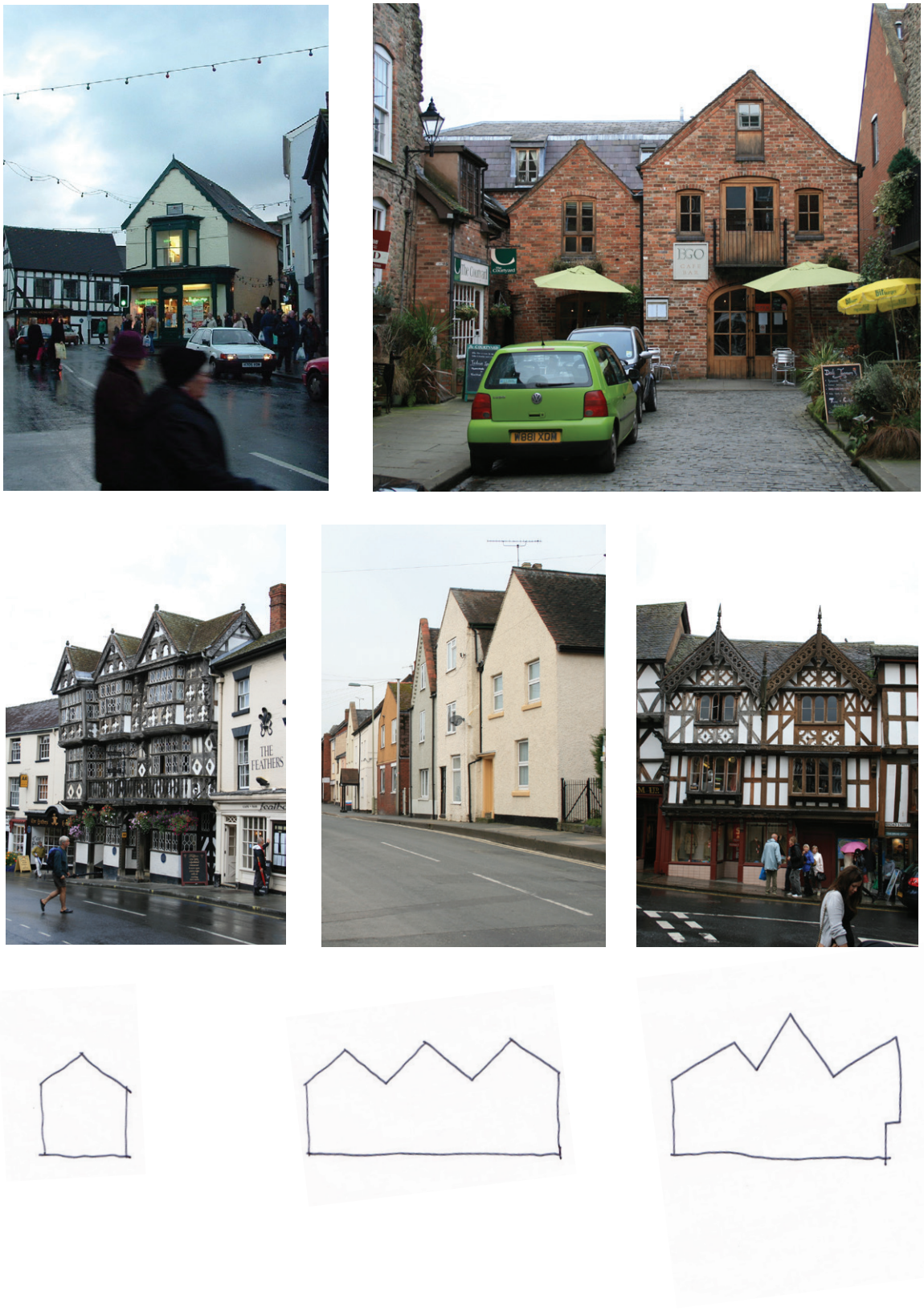


Fig 7.81. Forms: A form identified as characteristic of ludlow is the gable. Prominent buildings such as the Feathers Hotel (bottom left image) and the infill of the Bullring (top left) have gables to the street. These contrast with the typical terrace form found elsewhere in the town. In some examples of timber frame buildings these also jetty over the pavement.

Fig 7.82. Form & detail: The three dimensional form of the historic town is complex, with few flat facades. Jettys, bay and oriel windows, archways and covered walkways create a variety of experiences moving through the town.

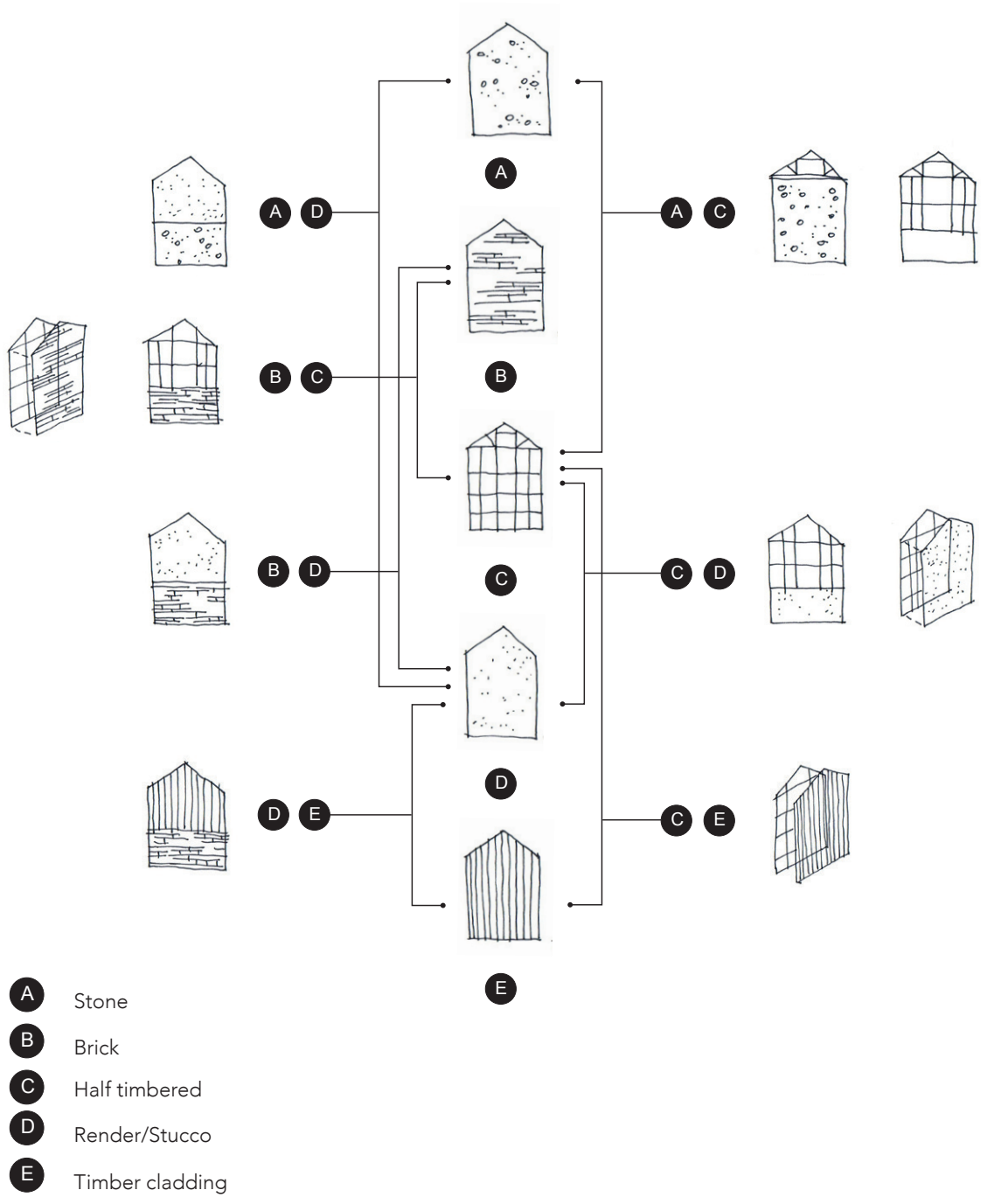


Fig 7.83. Material typology: The diagram identifies five main materials found in the medieval town and how they are combined in different buildings.

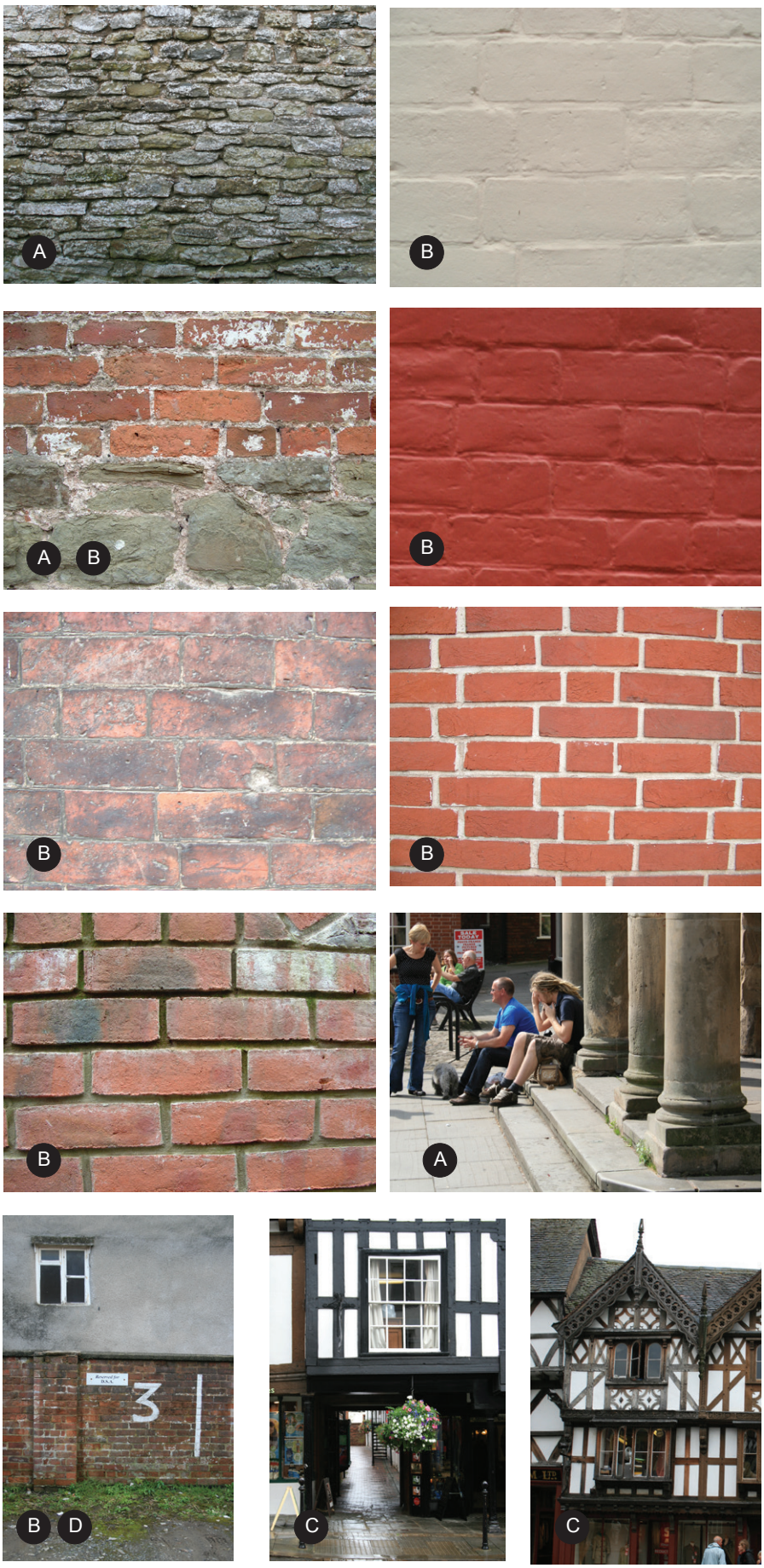
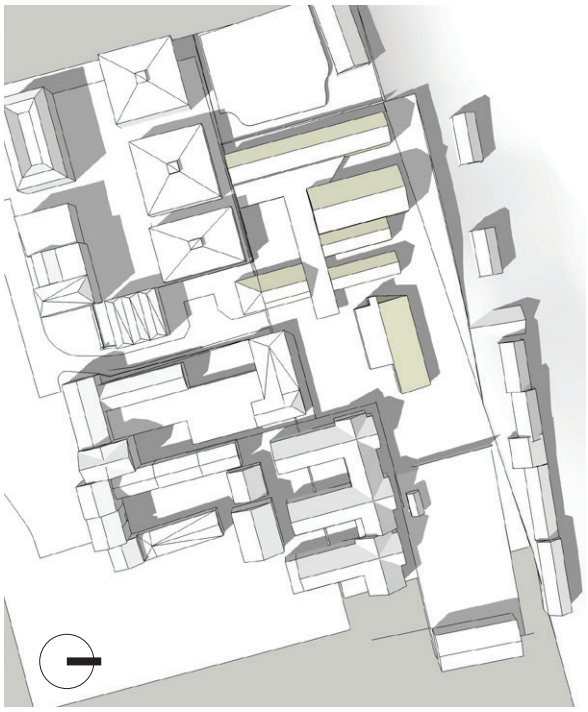


Fig 7.84. Material photographs

7.4.6 Design development

Stage 1

- North-south linear buildings around two courtyards, with education to the west of the site, a central market hall with linked microprocessing kitchens and canteens to the east.
- A public route along the escarpment ends in a side entrance to the market hall.
- Thecanteens present a long aspect to the view, looking over the valley below.

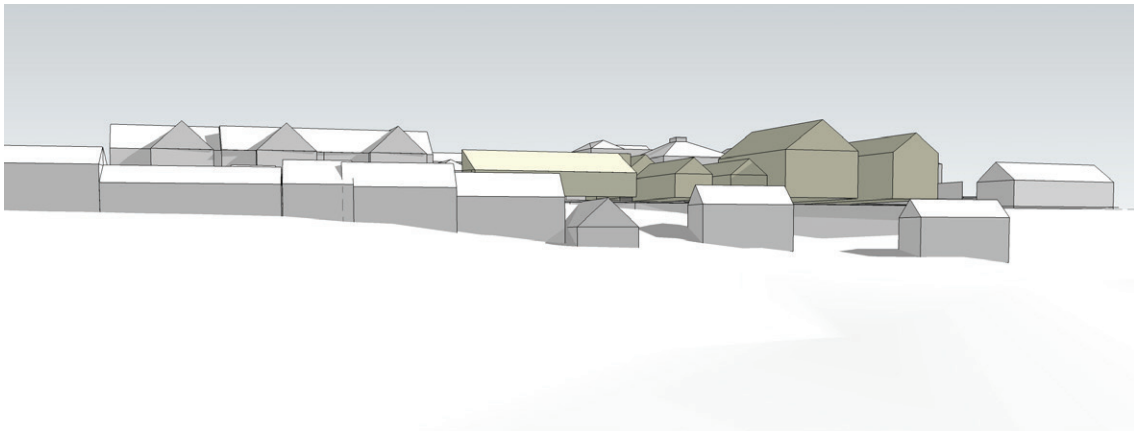


Strengths:

- Strong boundary to west edge - 2 storey linear block.
- Volumetric grain achieved through mixed massing- irregular form.
- Constellation plan- broken into separate blocks.
- Forms lend themselves to masonry construction; sense of place, solidity and material presence could be achieved

Weakness:

- Visual definition of hilltop edge from distant view is weak- step in plan form is not successful.
- Single storey forms do not develop the skyline.
- Large amount of leftover space- ways not developed enough.
- Forms replicate surroundings- not abstracted.
- Response to each aspect is weak (janus face).



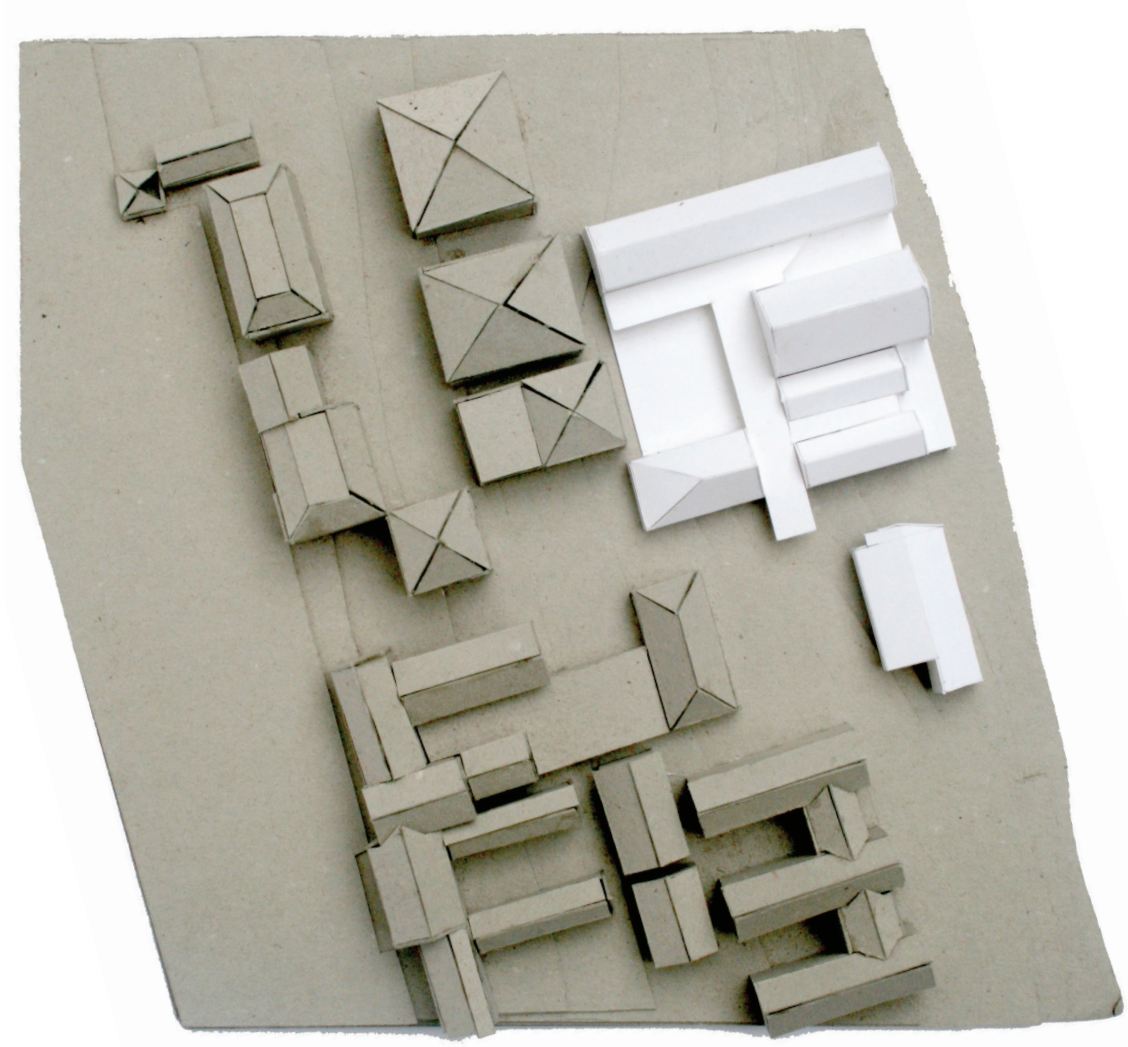


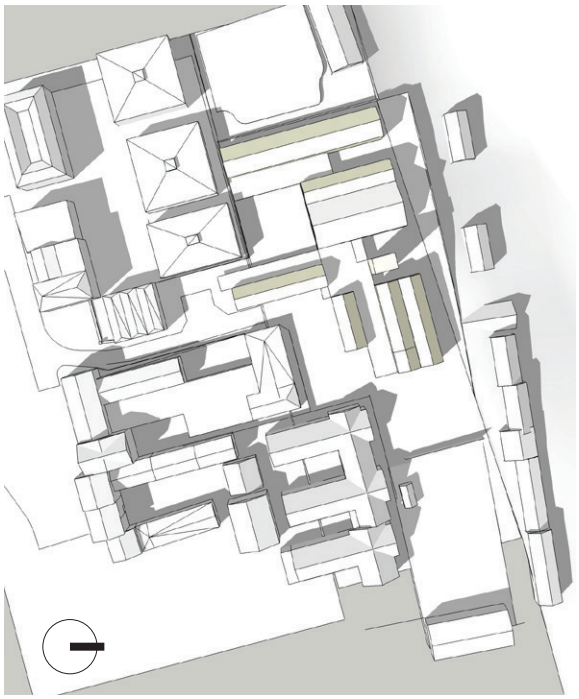
Fig 7.85. Model of stage 1

Fig 7.86. The design viewed on approach from Castle Square

Fig 7.87. The design viewed from the hinterland

Stage 2

- A mix of north south and east-west linear buildings- scale and mass increased.
- The east courtyard is reduced in size with the introduction of an east-west terrace.
- The food market is increased in size through the addition of a smaller pitched roof form alongside it.
- Hipped roofs replaced with pitched roofs.

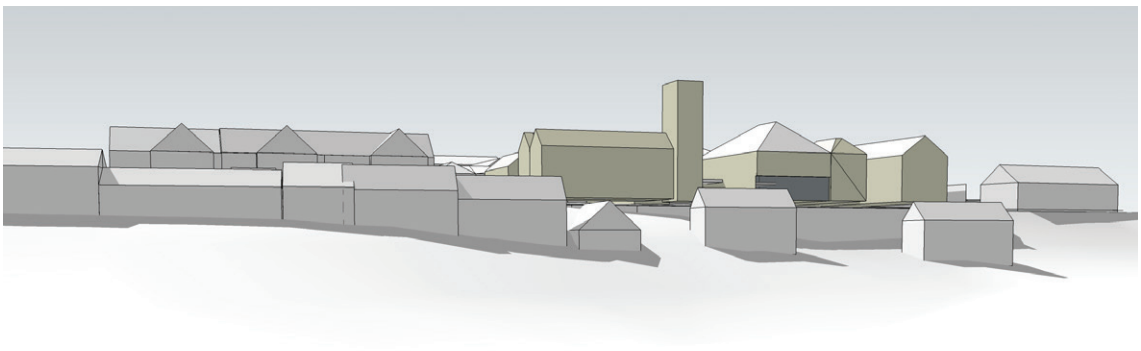


Strengths:

- Strong boundary to north and west edges - 2 storey linear blocks.
- Volumentric grain achieved through mixed massing- irregular widths of block.
- Ways & ground notations - covered walkways link the volumes.
- Response to terraced form to east is improved through increased scale.
- Belvedere acts as a marker.
- Less leftover space.

Weakness:

- North east edge is undefined.
- The scale of the central square beside the belvedere breaks up the building form. With the change in orientation of the terraces this could read as two buildings.
- Large amount of leftover space- although clearer definition.
- Response to each aspect is weak (janus face).



7.4.7 Peer review (21.11.14; present: Wayne Forster, Bill Gething)

- Site choice:

- The site choice addressed three of Snozzi's principles- creating a centre, densification & edge/connections.

- Brief and programme:

- The reasoning behind the market hall brief need to be clear. The notion of the relocation of the peripheral Ludlow Food Centre to the town centre should be evident. The ambition is to bring the food centre into the town; however, the idea of a traditional market hall on this site off the main public ways could be problematic. Connections to the wider town need careful consideration.
- The market hall should be a public space as part of the network of spaces around the town. It should be connective. Should it be on a route that people use and pass through the market as part of this route? Biarritz market is like this- in order to cross the city the most direct route is through three market halls- a sequence of covered spaces.
- The site is a backland plot, largely internal with a frontage to the escarpment. This is prominent from the hinterland, but equally the view across the hinterland was highlighted as important. The use of this northern edge should be reviewed; perhaps public functions should be located here, for example the canteens.

- Design through the operational framework:

- Not enough is being done with the edges of the site- the janus faces. It could be designed as a self-contained public precinct or to connect into the network of spaces and ways around it. The current form is weak along its eastern edge where private gardens abut the site.
- The three dimensional possibilities of the spaces between the buildings (the ways) needs to be considered, for example the number of lanes and alleys through the project. There might be a rhythm of spaces evident in Ludlow that can be applied to the design. Study the scales of the existing spaces in the town as found to inform the design proposal.
- The market hall could be a focus for the project, both within and from without. Exploring recognisable buildings and familiar forms such as the Feathers Hotel, with its double gable, could offer a way to create a focus out of this building.
- The introduction of a belvedere might be of value in creating a skyline. If height is added, it needs to have a function.
- The building forms remain literal and lacking the re-interpretation and abstraction evident in the work of Sergison Bates and Swiss-German architects. The next step should distort,

- abstract and reconfigure these forms to make them more contemporary.

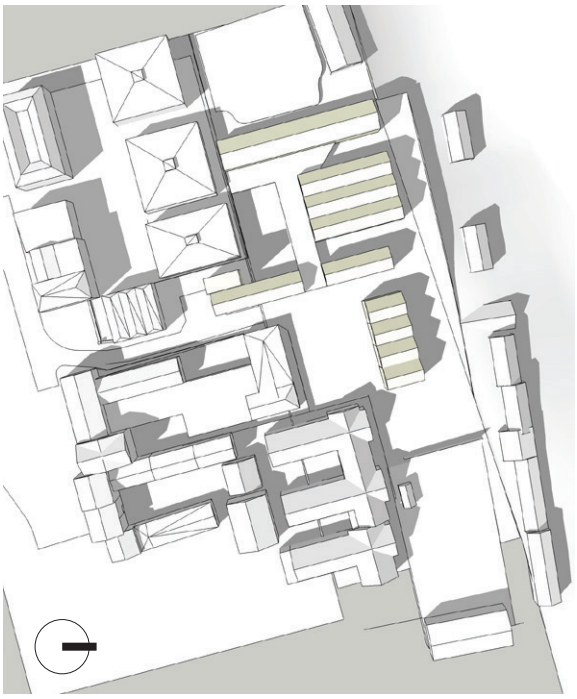
- Outcome and next steps:

- The English principles are evident; the framework has evolved from a focus on English Realism at Raven Lane to be inflected with Swiss principles in this project. The design should adhere to the principles, but the operational fraemwork can still evolve if it needs to and the design should probe whether there are aspects of placemaking omitted.
- There is a dominance of aerial and plan views in the design process to date. Use 3d models (physical or digital) to test aspects of the framework that cannot be explored through plan (e.g.: familiar form, abstraction, volumetric grain). Further consider the view from the landscape and how the building announces itself to the hinterland.
- Explore key aspects of the framework further, in particular ways, janus face, abstract form, and ensure aspects such as material solidity and presence are not ignored.

7.4.8 Design development

Stage 3 - Gables to the view

- All elements of the building have simple gabled forms facing north across the landscape. This tries to make the building read as one complex split by lanes, rather than as two separate elements.
- The building form steps along the escarpment, allowing side entrance to the market hall.
- Belvedere introduced as a marker on the skyline, indicating a public building.

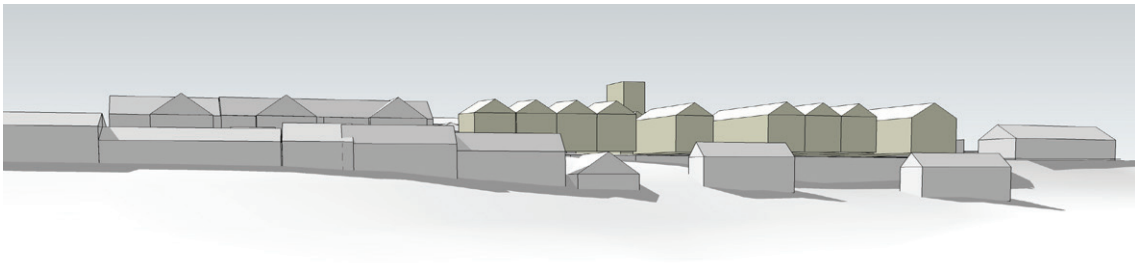


Strength:

- Strong boundary to west edge - 2 storey linear block.
- Clearer definition of hilltop edge.
- Constellation plan of repetitive pitched roof forms..
- Response to terraced form to east is improved through pitched roof forms breaking up the mass.
- Belvedere acts as a marker- could be taller?

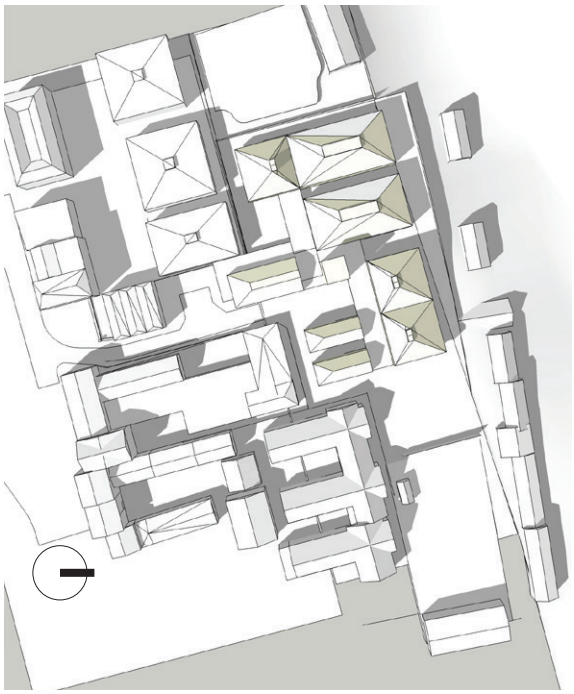
Weakness:

- The form is too similar across the hillside
- The scale of the lanes remains too large-and splits the building up too much. A Large amount of leftover space- although clearer definition.
- Forms replicate surroundings- although abstracted through repetition.
- Response to each aspect is weak (janus face).
- Courtyards are large.



Stage 4 - Pavilions

- The building form becomes a mix of north-south terraces and larger pavilions. The belvedere defines a central entrance and orientation space.
- The scale of the courtyards and lanes has been reduced following studies of the surrounding context.
- Terrace forms relate to burgage scale plots while the larger pavilions continue the scale of the school buildings.



Strengths:

- Strong boundary to north & west edge.
- Volumetric grain achieved through mixed massing and scales of building.
- Constellation plan organised around the belvedere which acts as a marker.
- Proximity of the blocks gives a strong presence on the hilltop.
- Grain of courts feels more in keeping with surroundings

Weakness:

- Too strong on the hilltop; the scale of the volumes is too large.
- The pavilions are bulky and over scaled.
- Lack of grain and constellation form; massing is bulky and over scaled. The forms dominate the escarpment.
- The belvedere is proportionally too short and does not act as a marker.

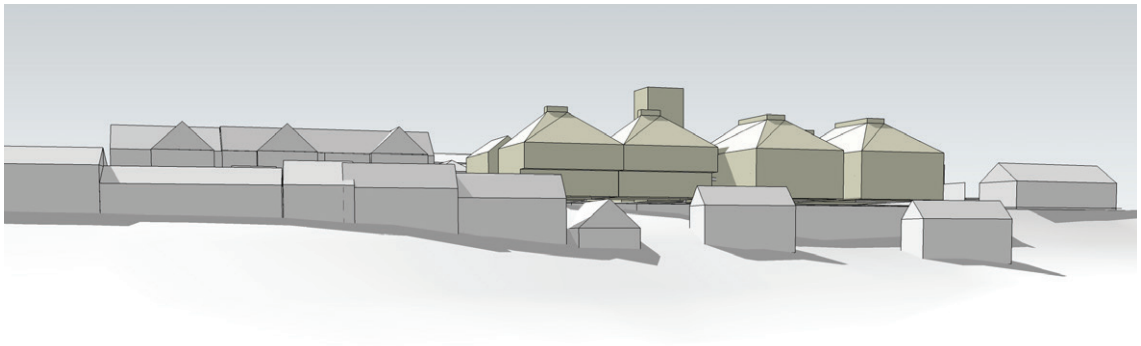


Fig 7.88. The design viewed on approach from Castle Square

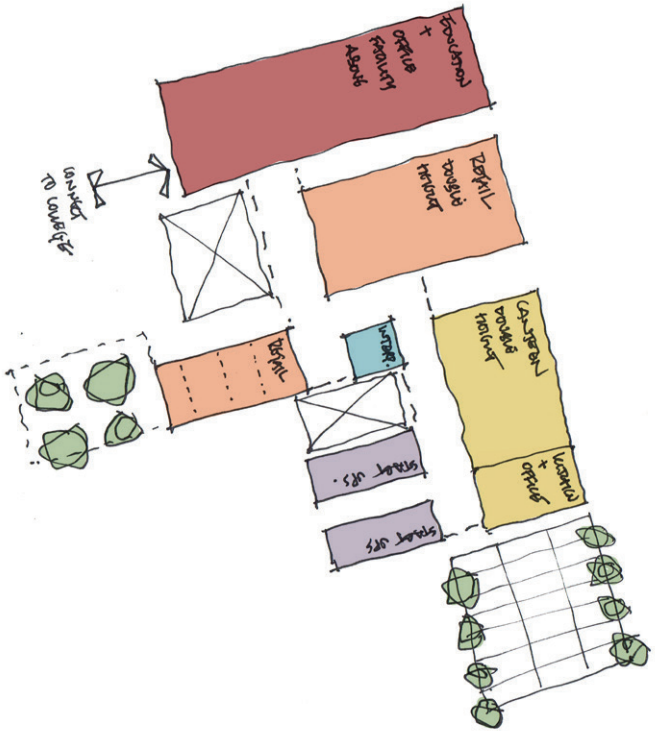


Fig 7.89. Functional zoning diagram

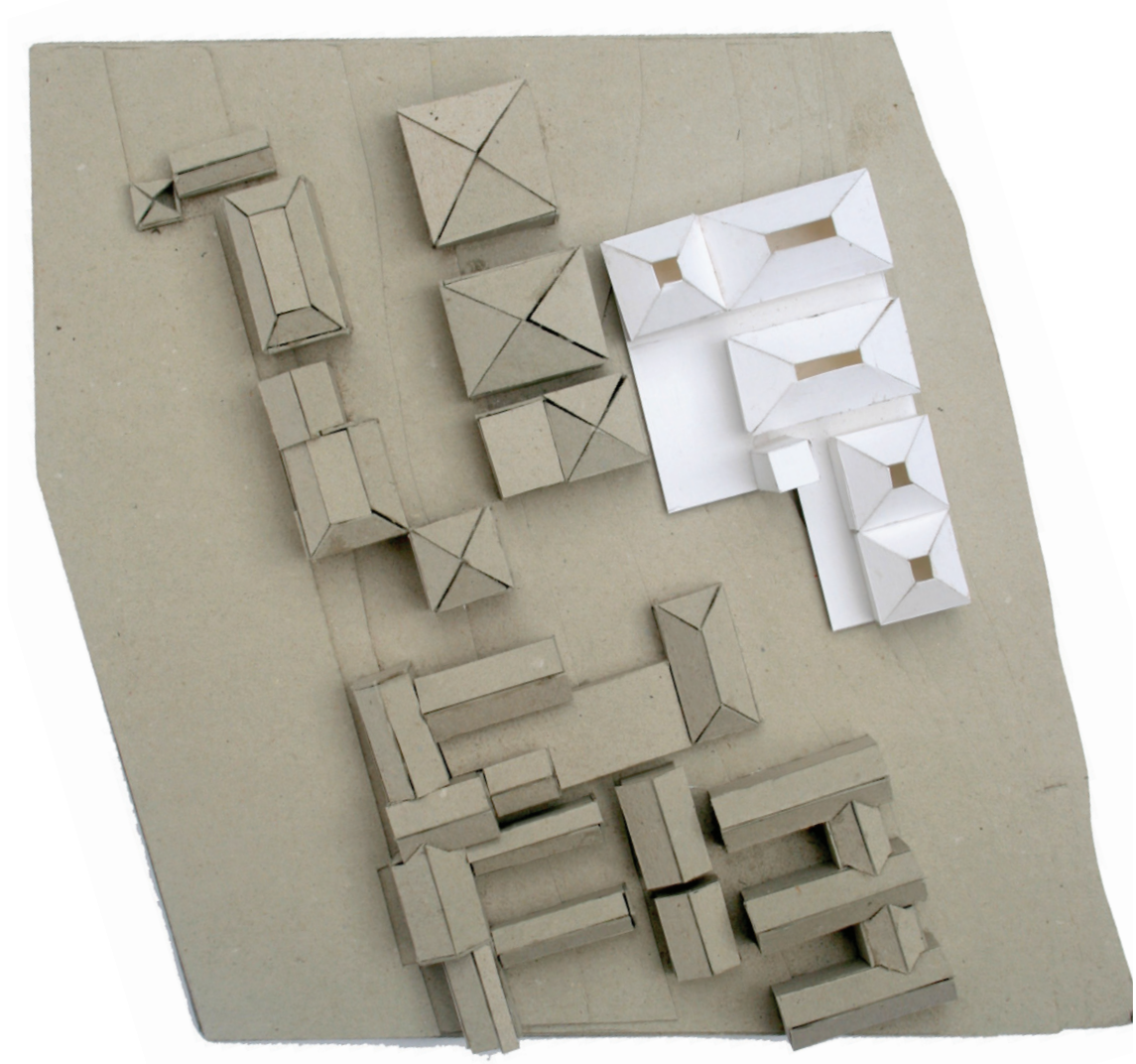


Fig 7.90. Model of stage 4

Stage 5 - Market hall rotated

- Forms return to pitched roof volumes seen in stage 4 rather than pavilions.
- The density of building is increased in response to examination of the scale of streets, lanes, alleys and yards in the town.
- The scale of the courtyards and lanes has been reduced following studies of the surrounding context.
- The classroom building to the west is widened and steps down in scale to the bowling green. The block is broken to reduce the impact of its length.

Strengths:

- Strong boundary to north & west edge.
- Volumetric grain achieved through mixed massing and scales of building.
- Scales of small squares, alleys and lanes reduced, increasing proximity
- Belvedere acts as a marker on the pedestrian connection along the ridge.
- Proximity of the blocks gives a strong presence on the hilltop.
- Grain of courts feels more in keeping with surroundings

Weakness:

- Perhaps too repetitive on the hilltop. A change in scale or roof form might help to break the repetition.
- Ways are still all too similar in width.
- The food hall elevation looks blank- views across the hinterland needed.

Fig 7.91. The design viewed on approach

Fig 7.92. The view through the covered lane, with the courtyard to the left and market hall to the right.

Fig 7.93. Section AA 1:500

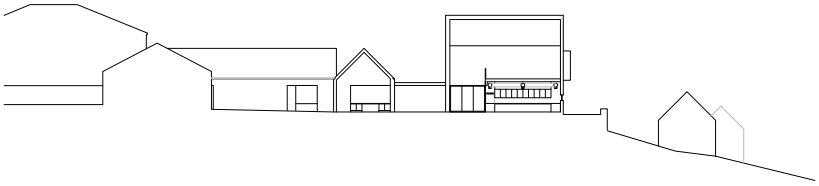


Fig 7.94. Section BB 1:500

Fig 7.95. Ground floor plan
1:500
1 - Classroom
2 - Teaching kitchen
3 - Changing room
4 - Store
5 - Common area
6 - Food market
7- Bin store
8 - Micro processing unit
9 - Reception/office
10 - Female WC
11 - Male WC
12 - Cleaner's store
13 - Canteen houses
14 - Food compass
15 - Growing area
16 - Courtyard
17 - Pocket park
18 - Yard

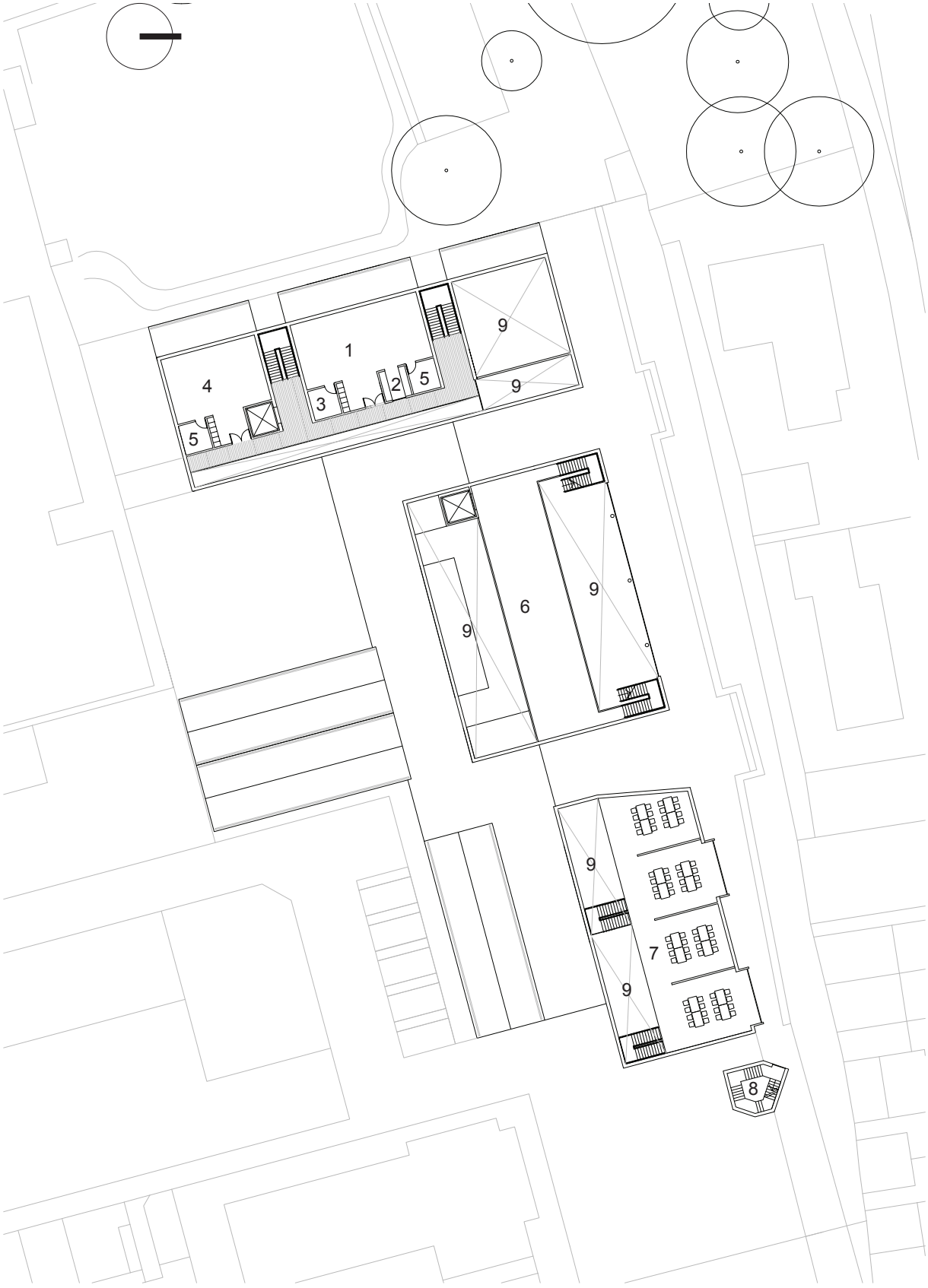
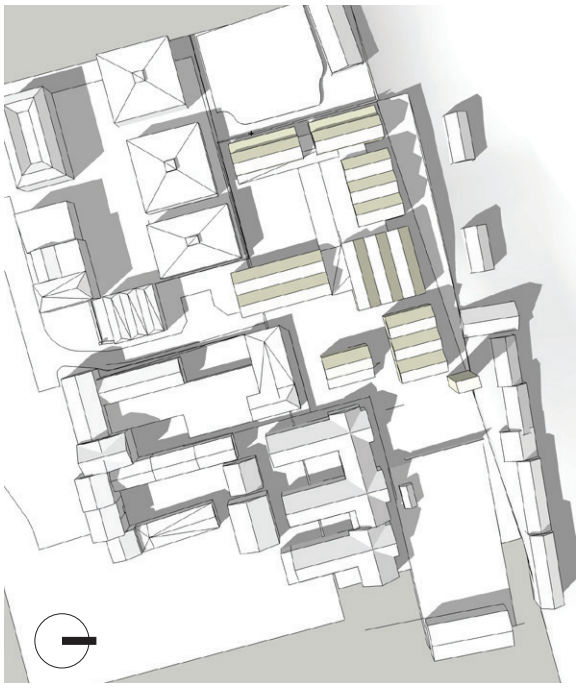


Fig 7.96. First floor plan 1:500:
1 - Staff office
2 - Kitchenette
3 - WC
4 - Management office
5 - Store
6 - Food market balcony
7 - Canteen seating
8 - Food compass
9 - Void

Stage 6 - Market hall and canteens relocated

- The density of building is increased in response to closer examination of the scale of streets, lanes, alleys and yards in the town. The scale of the courtyards and lanes has been reduced following studies of the surrounding context.
- The food hall and canteens are switched to cluster public uses around the main courtyard. A cafe seating area to the south of the canteens looks over the courtyard.

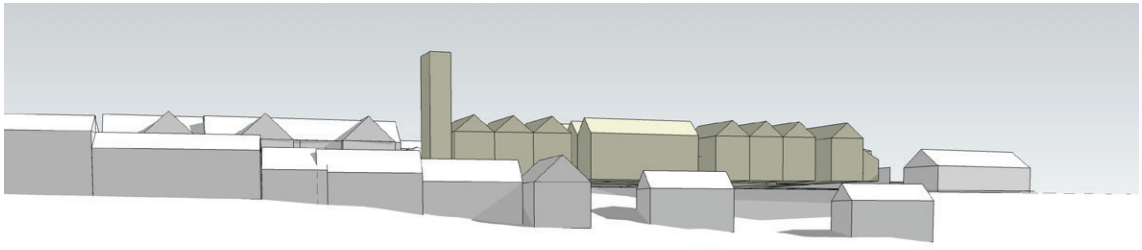


Strengths:

- Strong boundary to north & west edge.
- Volumetric grain achieved through mixed massing and scales of building.
- Scales of small squares, alleys and lanes reduced, increasing proximity
- Belvedere acts as a marker.
- Proximity of the blocks gives a strong presence on the hilltop.
- Grain of courts feels more in keeping with surroundings

Weakness:

- Perhaps too repetitive on the hilltop. A change in scale or roof form might help to break the repetition.
- Definition of the service yard edges is poor. The building to the east of this space is small scale to allow access around the east of the site, but this creates a leaky public space.



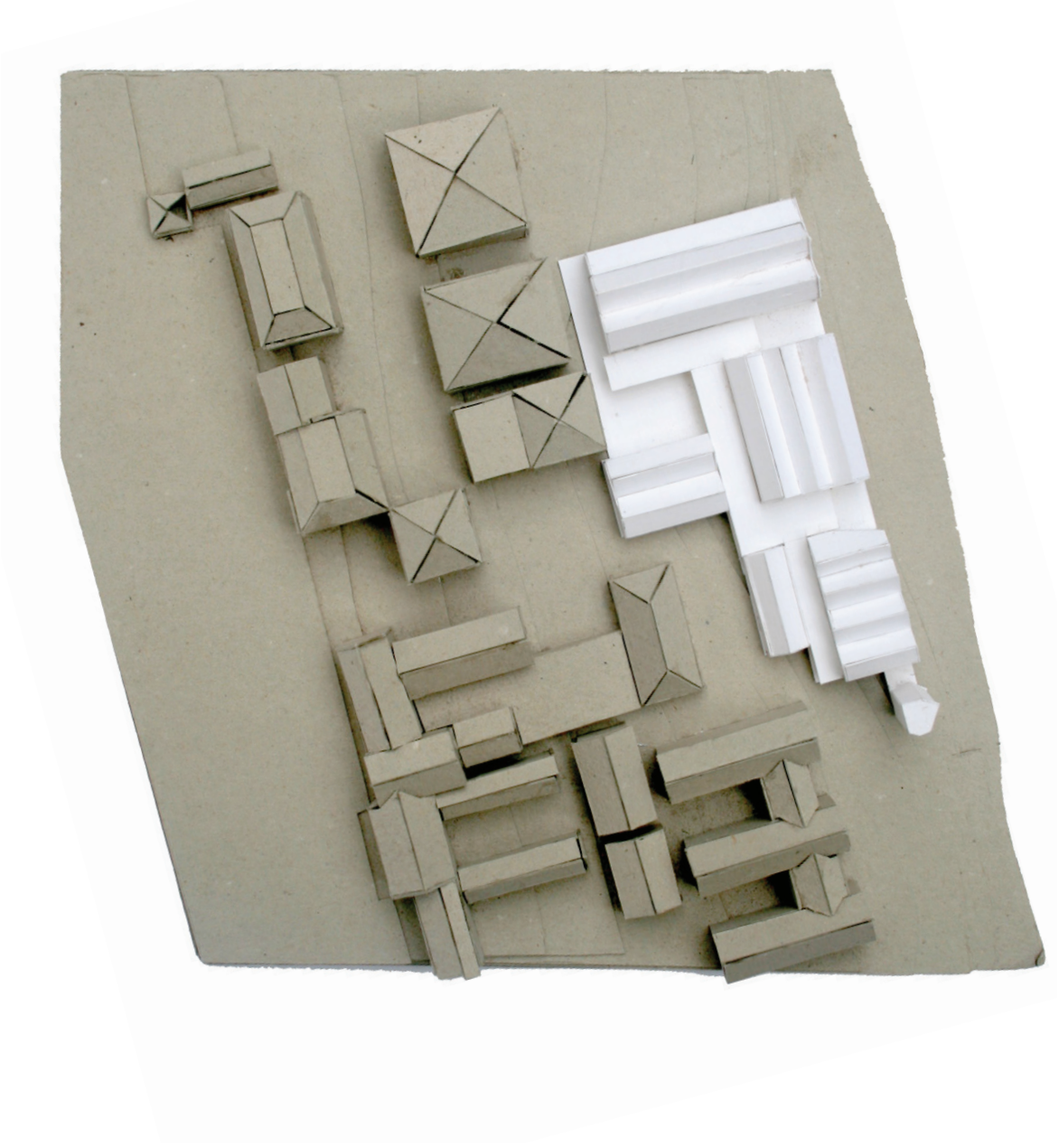


Fig 7.97. Model of stage 6

7.4.9 Final design drawings

Fig 7.98. Site plan 1:1500

1 - Food college
2 - Food hall
3 - Canteens
4 - Micro processing units
5 - lettable office space
6 - Court
7 - Yard
8 - Pocket park
9 - Food compass
10 - tree lined walkway
11 - allotments

Fig 7.99. Ground floor plan 1:500:

1 - Teaching kitchen
2 - Changing/prep room
3 - Accessible WC
4 - WC's
5 - Teaching canteens
6 - Food hall
7 - Food retail
8 - Micro-processing units
9 - Food compass
10 - Lettable office space
11 - Tree lined walkway
12 - Allotments
13 - Courtyard
14 - Service yard
15 - Pocket park

Fig 7.100. First floor plan
1:500:
1 - Teaching kitchen
2 - Changing/prep room
3 - WC
4 - Staff office
5 - Teaching canteens
6 - Food hall balcony
7 - Micro-processing storage deck
8 - Food compass

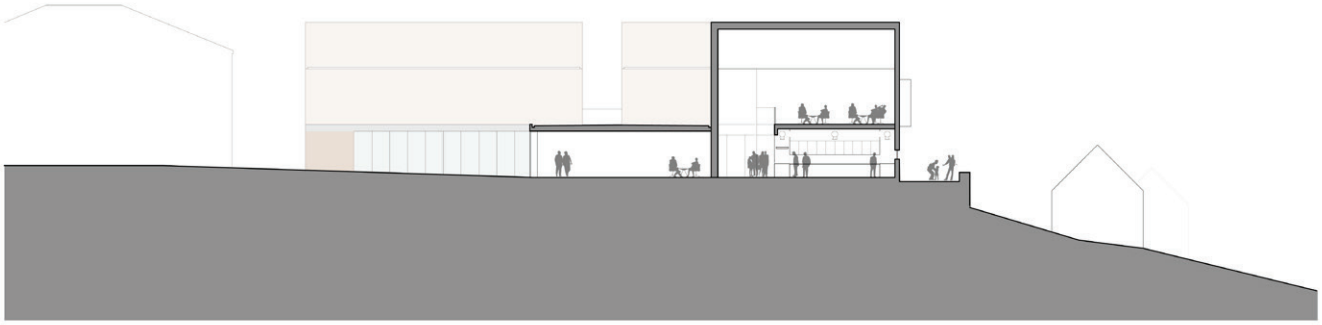


Fig 7.101. Section AA 1:500 through canteen and courtyard

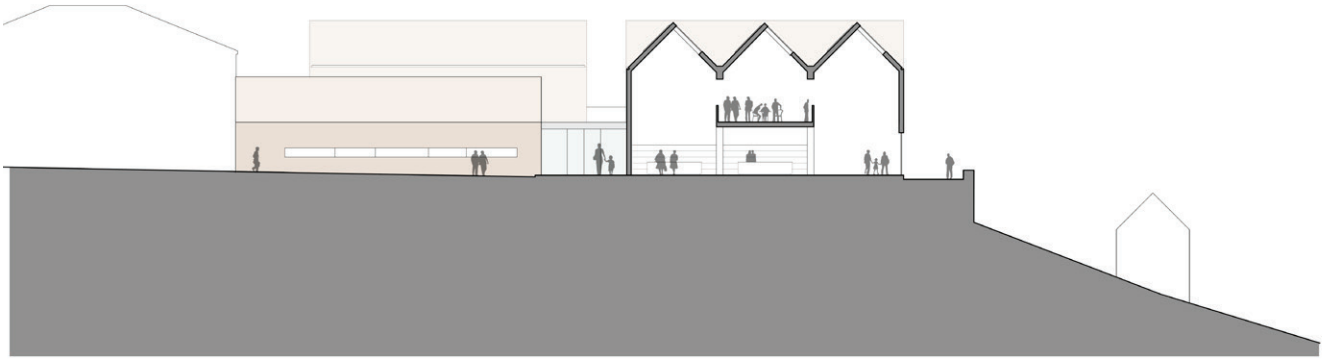


Fig 7.102. Section BB 1:500 through market hall

Fig 7.103. North elevation collage

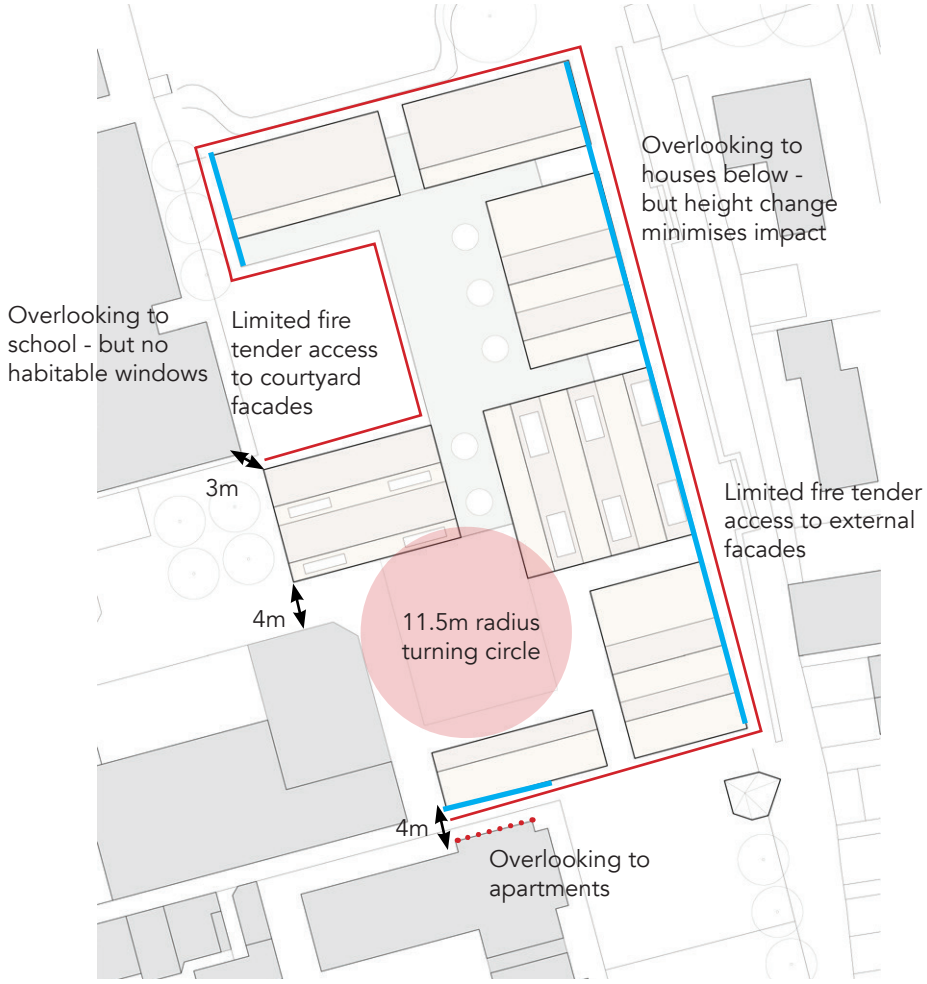


Fig 7.104. Statutory requirements: The grain of the proposal has been considered against statutory requirements, but in some cases this has been overridden to allow experimentation with scale and proximity.

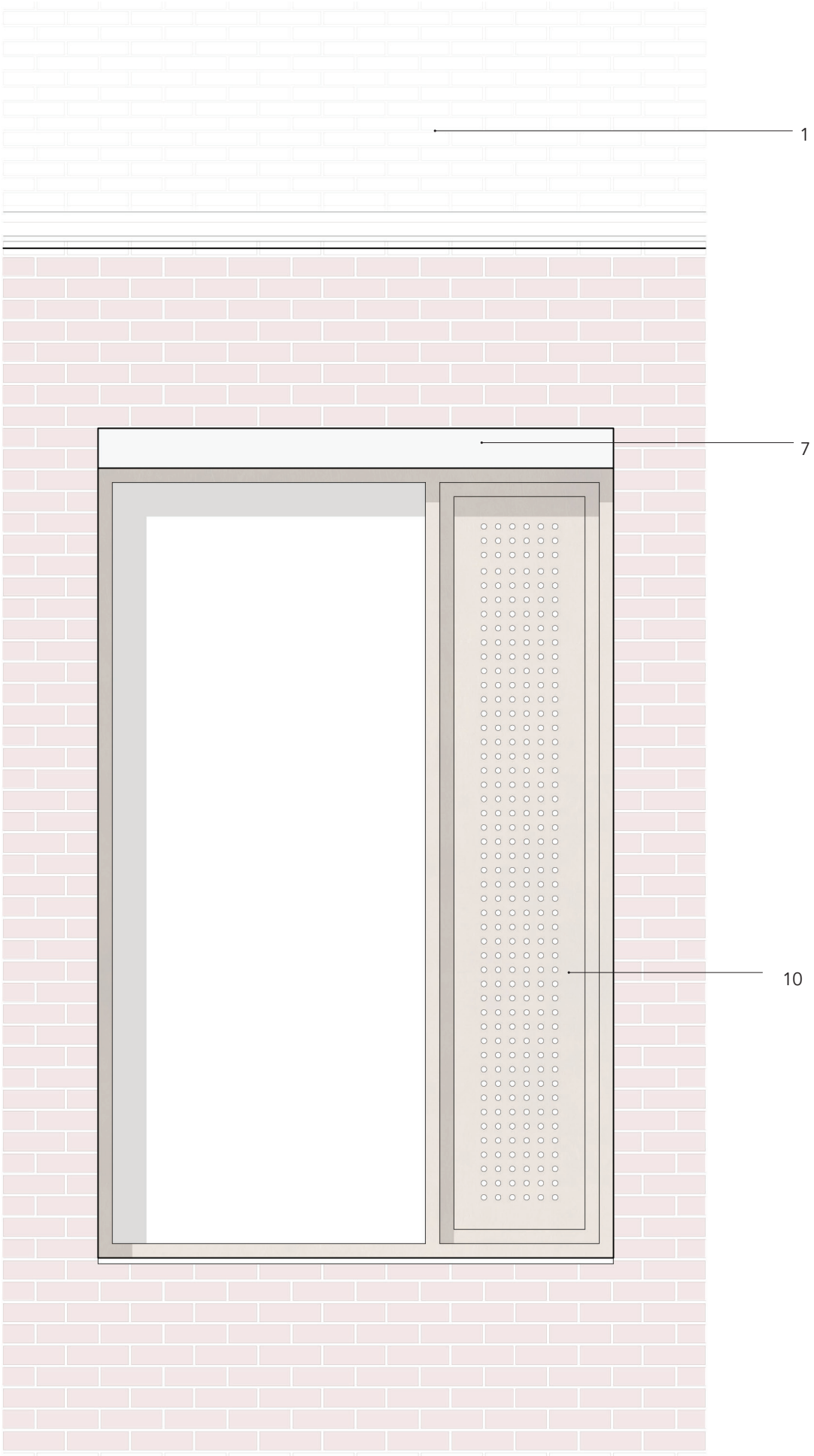
Fig 7.105. Approach from the market square

Fig 7.106. The covered lane alongside the courtyard

Fig 7.107. Approaching the Food Centre along the lane from the north

Fig 7.108. The food hall looking east

Fig 7.109. The Food Centre defines the edge of the town when viewed from the hinterland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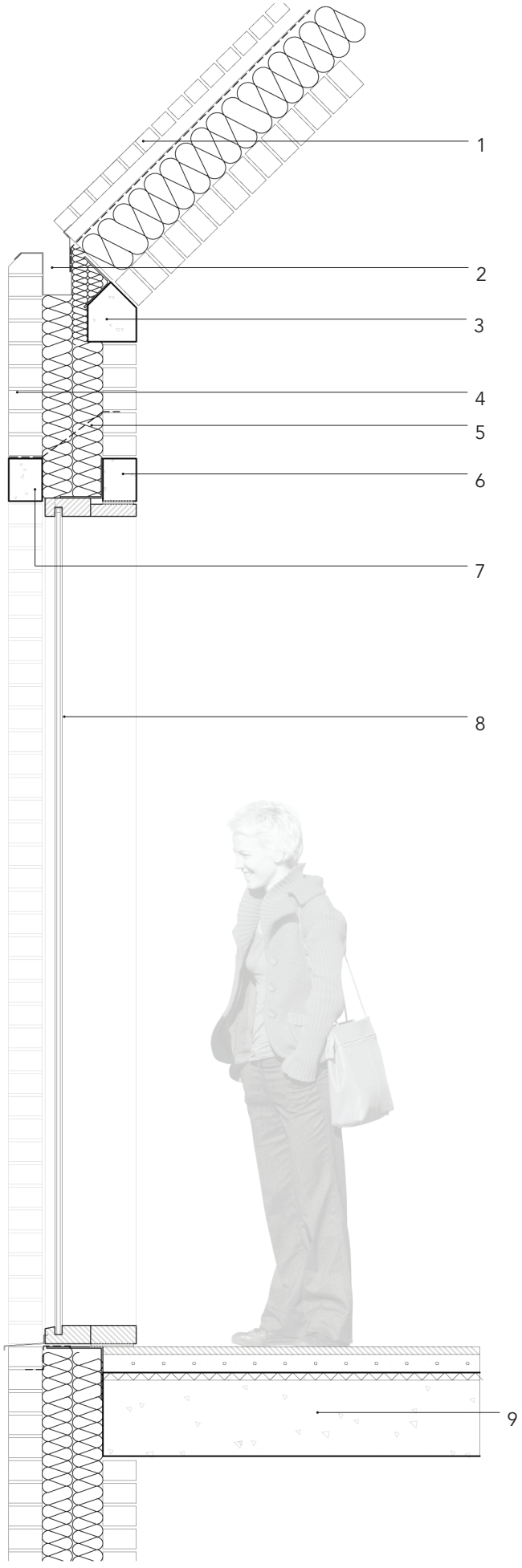

Fig 7.110. 1:20 Section/elevation detail:

1 - Roof:
50mm brick slip on mortar bedding
Brerather membrane
175mm mineral wool insulation
Brick lining

2 - Stainless steel pressed gutter
3 - Concrete ring beam

4 - Wall:
110mm outer leaf Petersen D33 brick with grey mortar
15mm cavity
185mm Isover mineral wool insulation
110mm inner leaf Petersen D33 brick with grey mortar

5 - Cavity tray
6 - Precast concrete lintel with steel angle cavity closer
7 - Precast concrete lintel
8 - Double glazed window unit with bronze finished aluminium frame

9 - Intermediate floor:
22mm douglas fir floor boards
60mm screed with underfloor heating
25mm acoustic insulation
250mm insitu reinforced concrete slab

10 - Window:
Double glazed window unit with bronze finished anodised aluminium frame
Perforated bronze finished side ventilation panel with opening panel behind

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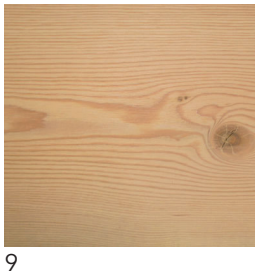
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7.4.10 Peer review (15.07.15; present: Wayne Forster, Simon Unwin)

- Design through the operational framework:

- The hierarchy of spaces derived from the town is not as successful as the volumetric grain.
- The exploration of presence is unclear- is it achieved through mass and volume?
- View, vista and skyline have become critical to this project. This could be a aspect of as found, but could be more explicit as a new addition to the framework.
- The abstract form needs consideration in detail. The abstraction of the overall form is considered but what exploration of what other elements or details could be abstracted could extend this aspect of the framework, e.g.: chimney and threshold.
- The 1:20 detail has little depth or suggestion of character. It is perhaps representative of the flatness and thinness of contemporary architecture, where the need to maintain consistent thermal and moisture resistant layers negates façade depth. This could be a positive or a negative. It could represent a temporal distinction that is useful to express the contemporary building, or it could suggest that further work is needed to explore the play of material and depth that is common in market towns.

- Outcome and next steps:

- The projects need a thorough and critical review against the principles of the framework. The evolution of the projects is key and should be on the wall and in the final document.
- The two projects are stand alone and could be completely separate projects by separate architects. Should this be the case, or should I be trying (as Snozzi) to create networks of projects that transform the forces and energies of the place? This would demonstrate the transformative potential of a network of projects.
- The projects are a homage to the visual and the vernacular. Despite exploring aspects of the operational framework in more depth than Raven Lane, the design potential of the framework could be tested further. Consider other architects such as Giancarlo De Carlo who are not neo-vernacular (the critique of Ludlow). Perhaps in referring to the English Realist approach this is what the project set out to achieve, but as a critique it doesn't go far enough in proposing a critical architectural language. It confirms and reinforces the status quo.
- Successful buildings in market towns, e.g.: Ruthin Craft Centre, Ludlow Library, Tesco Ludlow, are scenographic in their approach. This doesn't mean they are bad, but it is a critique of the approach. E.g.: use of red concrete to reference the red stone in Ruthin, a curved roof to reference to hills around Ludlow. It is a picturesque approach that is influenced by townscape and visual placemanking. The strength of Snozzi is the

strengthening of the town and its morphology- it is topographic and morphological not scenographic. The design language should be explored further in the next project.

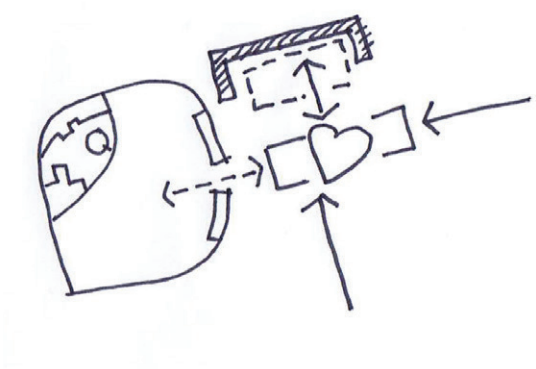


Fig 7.111. Defining the centre

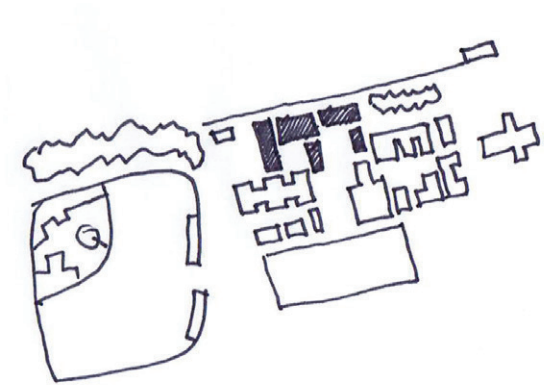


Fig 7.112. Consolidating and densifying the core

7.4.8 Review through the operational framework

Through the process of design and reflection on and reflection in action, findings can be drawn about the framework as a model for design and the principles of the design outcomes. By making a shift in scale and typology of building it was hoped that different aspects of the framework would be tested through the design process. The identification of a different type of site to the live-work housing- an edge site as opposed to an infill site- similarly aimed to assess the transferability of the framework to different site conditions. Findings have been determined through reflection-in-action during the design process and reflection-on-action in a concluding peer review.

The following section critiques the design response under the headings of the framework, evaluating both the effectiveness of the framework and the design response.

Settlement

-Defining a centre:

The building is located alongside the market square on the edge of the historic town. It aims to create a public function in the town centre and to relocate the peripheral Ludlow Food Centre to the town centre. (fig. 7.111).

A belvedere, the 'food compass', creates a marker visible from the landscape that identifies the building from afar, locating it as part of the centre of the town. This is located between the two existing markers- the castle keep and the church.

-Consolidate and densify:

The site is an undeveloped edge site in the historic town that is clearly visible from the hinterland. Adding a public building here replaces the car park with a series of public spaces framed by new public and education buildings (fig. 7.112). The form aims to extend the dense backland of yards and lanes, introducing dense development to the site. The mass and density of development increased through the design process following reflection and peer review, to create a sense of proximity and density that approximates the experience of the historic town core.

-Boundary and edge:

The site is located on the edge of the historic core along an escarpment. The building creates

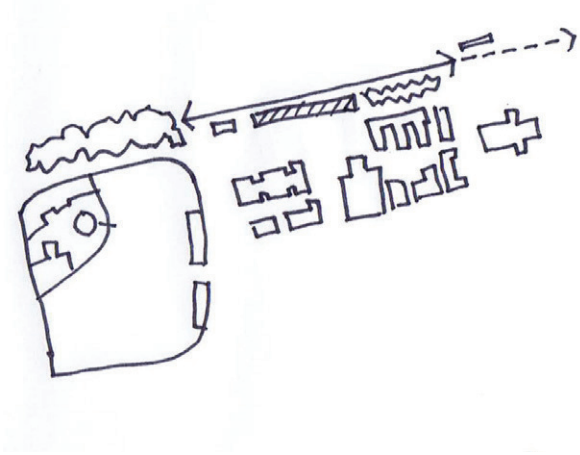


Fig 7.113. Reinforcing a weak edge

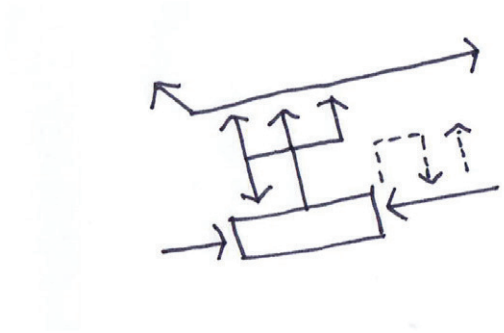


Fig 7.114. Connections to and off the site

a strong edge to the north along this escarpment, infilling a gap on the skyline of Ludlow (fig. 7.113). The design studies evolved through a number of approaches to this edge, gradually increasing the massing to reinforce and strengthen the edge.

Functions that benefit from the view are located along the escarpment: the canteens with kitchens below elevated eating decks and the food hall with panoramic views across the landscape. The cookery school links to the existing college campus and creates a strong boundary to the bowling green.

One area that does not get reinforced as well as it could is to the east of the building in front of the apartment buildings. Here, a lane and row of trees is introduced along the escarpment, with allotments behind. This could be further strengthened by extending the building to include this area of site, perhaps as another courtyard with a residential character. This was not carried out to preserve the view out of the apartment buildings, but this results in a weak edge.

-Connections:

In order to ensure public footfall to this backland site, visitors need to be able to find the centre and to use routes through and around it as part of the network of routes around the town. Tying into the existing networks offered a way of integrating the new building and extending these networks through the project (fig. 7.114).

Extending lanes to Corve Street in the east and to the landscape in the north west connect the centre to both the town and the hinterland. A link down the escarpment slope to a new car park located at the foot of the hill could introduced, replacing the parking lost by building on this site.

Site

-As found:

The initial analysis of the site 'as found' was carried out through a photographic study of the site, its surroundings and relation to the landscape, accompanied by map-based scale drawings of the site. This reading of site did not go beyond providing base drawings from which to work and is perhaps superficial; expanding site thinking beyond the boundary of the site could help knit new buildings into the fabric of the town, as was described in the findings of the mapping process. Considering site not as fixed but as temporal offers the possibility of new uses, forms and architectural language that grows from, enhances and evolves the historic fabric. This has

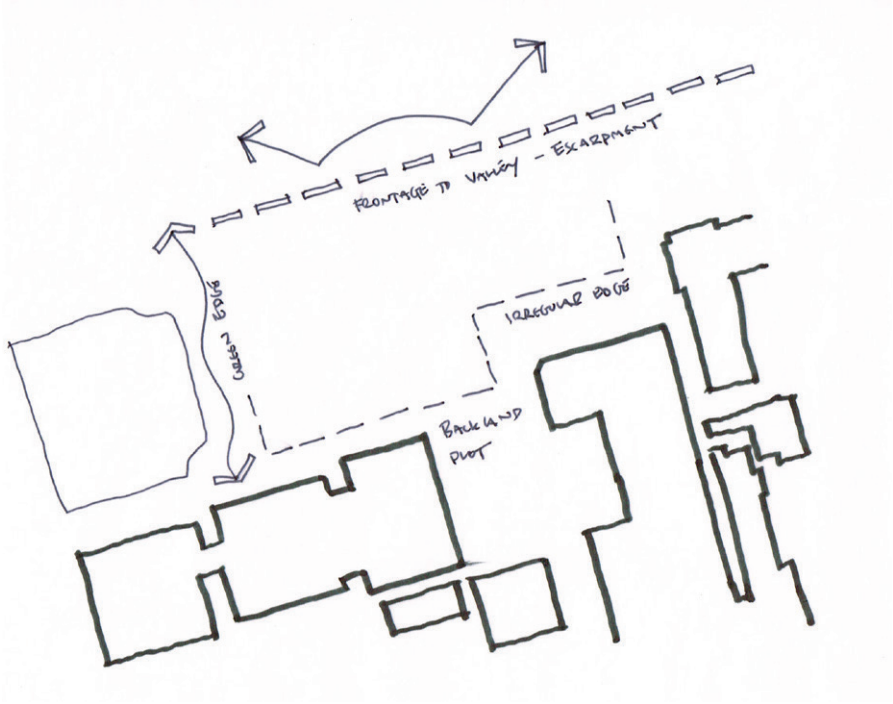


Fig 7.115. Janus face conditions

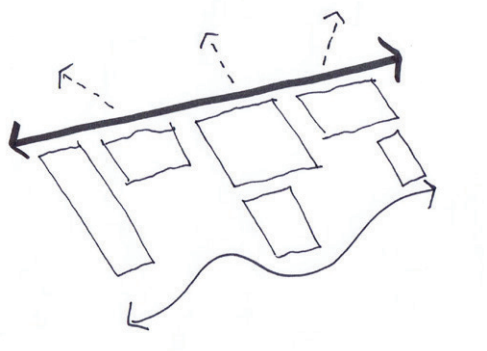


Fig 7.116. Janus face conditions as designed

parallels to Snozzi's approach where the wider impact of a project beyond the site is sought.

-Janus face:

The site's dual character of backland and a prominent escarpment with views to and from the hintertand was considered closely (fig. 7.115).

To the south, the building was designed to knit into the existing disparate fabric of the back land plot and to reinforce its urban character, while to the north reinforcing the skyline became the priority. The varying heights, functions and forms of the volumes in the proposal respond to these varying conditions.

Three areas were considered of particular importance; the residential apartment buildings to the east of the site, with respect to views and rights to light; the college buildings to the south, with respect to light and connections to the new buildings; and the escarpment edge, with relation to the impact of the building in the skyline of the town.

The result of these studies is that regular and repeating forms line the escarpment, creating a strong edge. Smaller scale and irregular forms frame public spaces within the depth of the plot, knitting into the backland fabric (fig. 7.116). A key issue to emerge was the proximity of the proposal to the neighbouring buildings was carefully considered both in relation to regulations and to the scale of spaces in the town.

-Ways:

The consideration given to ways follows reflection on the Raven Lane live-work housing, where the lane and court designed did not have a sense of destination or a reason for their use and were out of scale with those in the surrounding burgages.

The first proposals for the food centre did not link into existing lanes and pathways around the town or respond to their specific scale and enclosure. Following peer review, an analysis of the measure of the town- its lanes, alleys, streets and squares- was carried out to inform the development of a hierarchy of scales of ways that were applied to the project (fig. 7.117).

The size of the square, yards, lanes and snickets were further adjusted to respond to the scale of the existing spaces in the town to knit the public spaces into the surroundings (fig. 7.118). Public spaces within the site were defined before parts of the building were placed to frame and enclose these spaces. Linking into and extending this pattern offered a way of integrating the proposal with the existing fabric, ensuring continuity. The approach of carving out ways

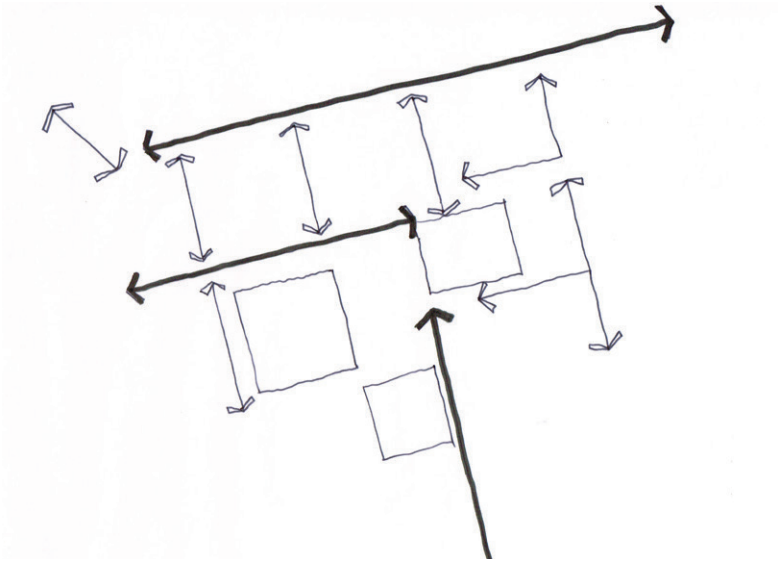


Fig 7.117. Ways

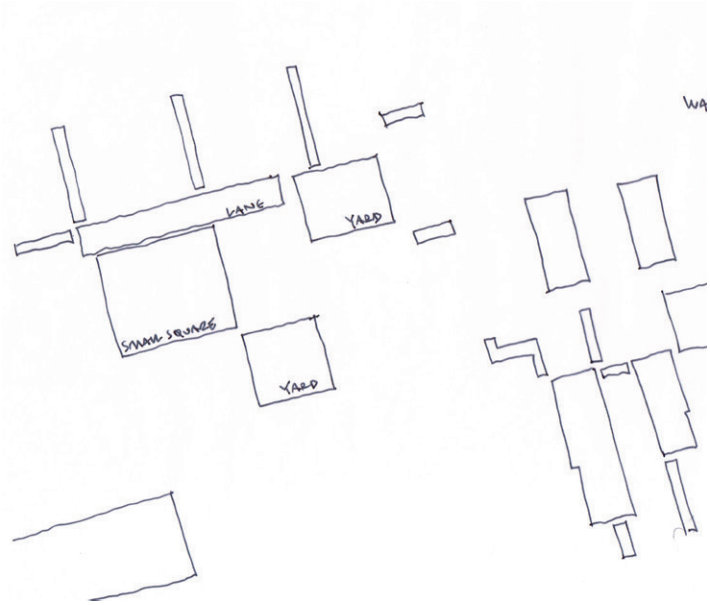


Fig 7.118. Hierarchy of yards, lanes and snickets

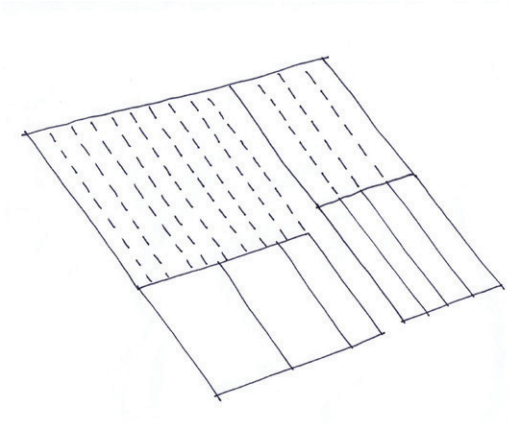


Fig 7.119. Patterns of ground notations

would allow different scales of ways to introduced from the start of the design process. It may also requre negotiation between the demands of ground notations in the form of burgage plot dimensions and the finer grain of ways and lanes; manipulation of the ground notations could help in breaking their rigidity.

The scale of the spaces could be further refined and the functional use of the spaces identified more clearly. The public spaces are similar in scale and proportion, whereas those identified in the wider town are more varied- public squares, working yards, and private courts.

A more detailed exploration of the function, inhabitation and materials of these spaces could help to improve the sense of place. The importance of knitting into existing networks and patterns in the town resulted in a thorough investigation of the scale and proportion of public spaces and the life that happens between buildings. Micro scale analysis of the materials, finishes and details of each type of public space could further suggest ways of reinterpreting these further.

The design of the proposal based around ways suggests that perhaps these need to be given legal status and protected as rights of way to prevent their removal in the future. If this was the case, then the eventual demolition of the proposal would leave rights of way through the site, preventing a single large building to be constructed in its place.

-Ground notations:

The historic boundaries have given rise to the linear development pattern with a continuous frontage to the market square and a back land of yards and lanes behind. Main pedestrian routes follow this pattern, with the most public space in the town giving access to yards behind the street frontage through alleys or snickets.

The existing historic patterns of 6m wide burgages became a driver for the linear form of the buildings (fig. 7.119) and led to the expression of the six metre grid in the roof forms, but did not influence the design beyond a layout grid. Rather, the scale of the blocks was defined by the location of public space, with building elements placed to frame these spaces.

Organisation

-Constellation:

The division of the plan form into blocks, related to the scale of the context and dissected by

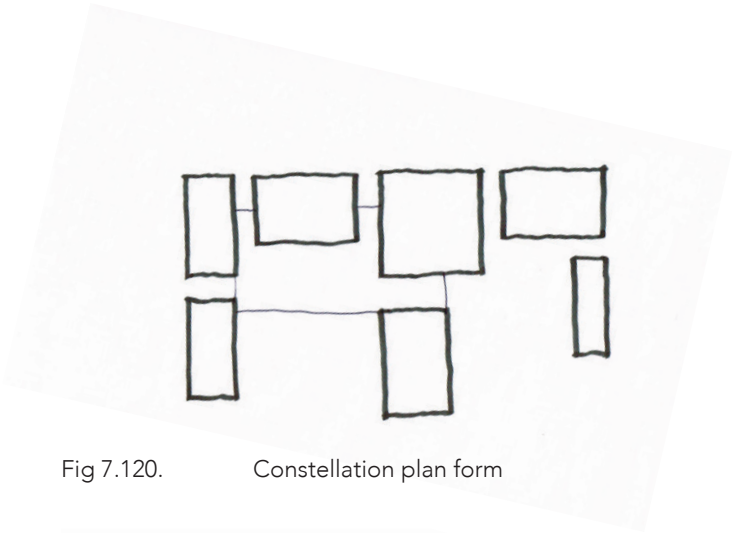


Fig 7.120. Constellation plan form

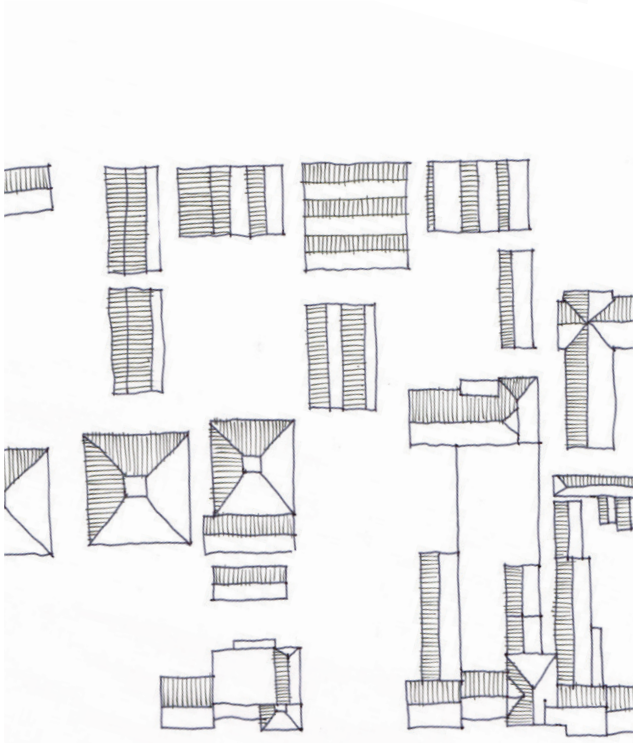


Fig 7.121. The grain of the constellation plan form in context

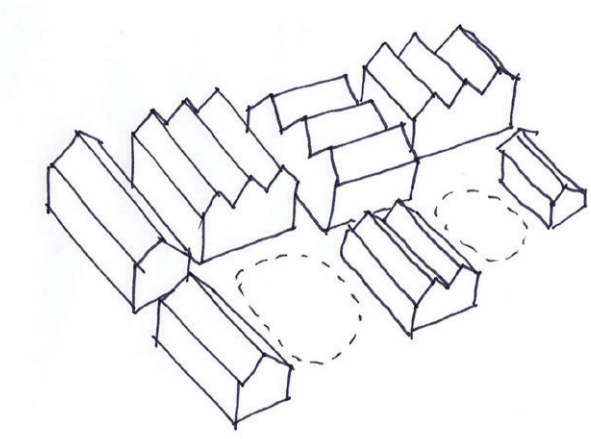


Fig 7.122. Volumetric grain of the plan form

ways gives the individual programmatic components of the building a sense of individuality within the whole complex.

These 6-8m wide blocks are combined where necessary to create larger span spaces, such as the food hall (fig. 7.120). This enables a large public building to be fragmented into smaller parts that can sit more comfortably within the historic environment that a larger form could (fig. 7.121). While this has been achieved, perhaps there should be more difference introduced.

The approach of constellation plan forms has the benefit of fragmenting a large brief into smaller components that are more easily integrated into the context. This plan-led approach is supported by the consideration of volumetric grain, which could be seen as a three dimensional extension of constellation plan forms. The 6-8m wide blocks based on the ground notations are combined where necessary to create larger span spaces, such as the food hall.

-Volumetric grain:

Where fragmentation of the plan discussed above enables integration of the building into the context, so careful consideration of the mass and form has the same goal. The volumetric grain of the building is varied in scale in relation to surroundings with an increase in scale to dominant edge. The use of repetitive pitched roof forms aims to break larger elements of the building down to the scale of building found around the site (fig. 7.122).

Working through models, both physical and computer generated, the massing and volumetric grain were carefully tested and refined. A 3d computer model became increasingly important in allowing rapid testing of mass and form.

The grain of the proposal has been considered against statutory requirements, but in some cases this has been overridden to allow experimentation with scale and proximity.
In order to respond to the scale of the lanes and snickets around the site, some elements of the building have been placed close to the site boundaries with less than the required 21m between habitable windows. This is addressed by limiting openings where this occurs thorugh use of rooflights.

-Conglomerate ordering:

The building aims to be part of a larger conglomerate fabric through extending the language of forms and ways in the town to create a new building that knits into the fabric and feels part of its place. The building has a sense of conglomerate order from a material wholeness and the

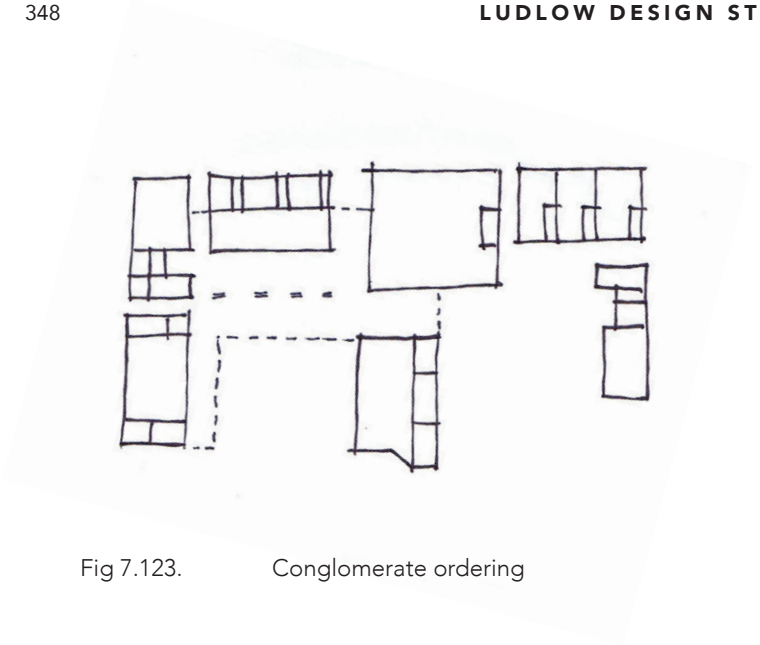


Fig 7.123. Conglomerate ordering

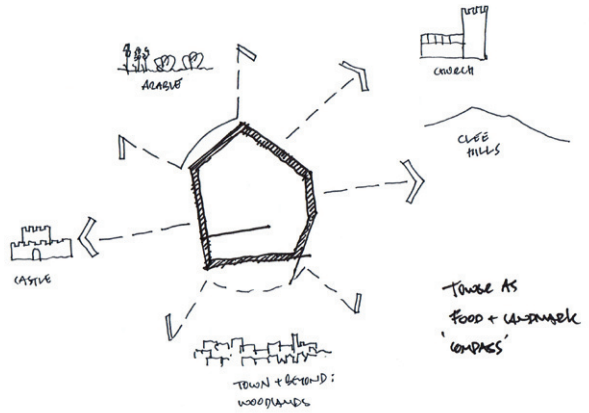


Fig 7.124. The form of the food compass derived from framed views

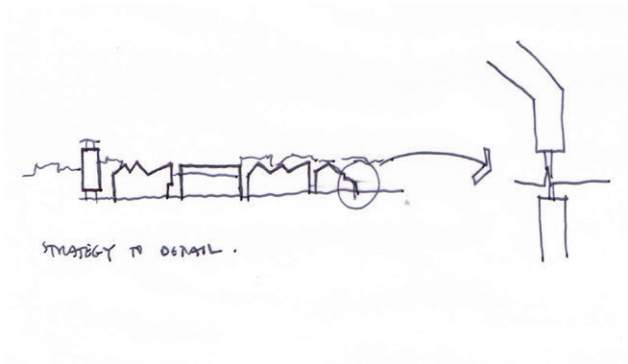


Fig 7.125. Strategy and detail

Fig 7.126. Abstracting form from the context

organisation and hierarchy of ways through, around, in and out of the project.

The principles of conglomerate ordering are applied through the variable density of plan- for example, with services such as stairs, toilets and stores consolidated into blocks, contrasting with more open spaces such as teaching kitchens and the market hall (fig. 7.123). Spaces are easily accessed off the public routes, and predominantly single sided corridors maintain a link to the town and hinterland.

Orientation through natural light and view give a sense of legibility to the building; public spaces are clustered around the two courtyards and linked by a covered lane. Along this lane, informal gathering space are defined, in particular outside the canteens. The introduction of a food compass (fig.1.124), a belvedere shaped to respond to the location of food sources and key food locations around the town, creates a marker in the town and a point of orientation. This is also considered to create a constellation- not in plan form, but in linking the building into a wider network of food producers in the hinterland.

-Strategy & detail:

The building has been designed through consideration of the mass and volume when seen from key locations and the scale of the ways through the site. This has been combined with consideration of detail at 1:5 scale (fig. 7.125). However, this could be explored in more detail, for example through greater exploration of material and detail and further investigation of inhabitation, for example through a model similar to the 1:20 inhabited model made for Raven Lane.

Form

-Abstracted form:

The use of abstracted, reduced, simplified and repetitive forms (fig. 7.126) has been successful in creating a contemporary interpretation of the context. This is achieved not through repetition but through analogy, which *"allows present circumstances to be resolved by reference to past circumstances, configurations and spatial organisation."*[28] In this way it has continuity with the past but remains open to the future. This allows an evolution of a place, encouraging development of tradition and an acceptance of change.

The simplified forms have been successful in abstracting typical forms into a contemporary

28 Peter Rowe, Modernity and Housing (Cambridge, Mass: MIT Press, 1993) p.32.

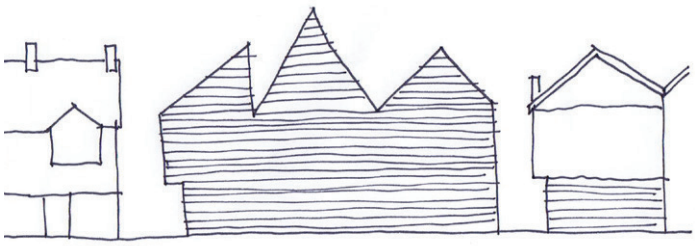


Fig 7.127. Continuity & mediation

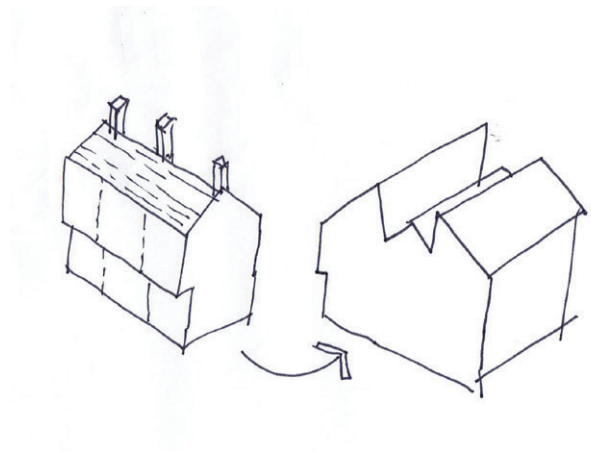


Fig 7.128. Familiar forms

building. Stripped of detail, motif and pattern, these familiar forms have a presence and material weight that is appropriate to a historic town. In this way, the proposal aspires to becoming what Giovanna Borasi describes in Stephen Taylor and Ryue Nishazawa's work as *"an architecture that is extremely sophisticated but simple in appearance, architecture that combines a highly refined design with a reality purged of unnecessary elements."*[29]

However, while the building form has been abstracted, the analogy does not go beyond this simplified volume. A further step would be to explore how to abstract other characteristics, for example the threshold, chimney or the jetty. The aim of creating simple but abstract forms that are highly refined and carefully considered interpretations of the existing conditions should be explored further in future projects.

-Continuity/mediation:

Considering the scale and form of the wider context and the networks to which the project is contributing and extending makes the proposal move beyond a project to become what Peter Rowe terms '*a piece of city*'[30]. Whereas the project is a clearly identifiable whole, with a degree of architectural difference to its surroundings, the piece of city is seen as a continuation, evolution and modification of what already exists in a place (fig. 7.127).

The consideration of how the forms of the building relate to the grain of the place enables this to take place and the building to knit into its surroundings.

-Familiar:

The use of familiar forms has enabled the proposal to relate closely to its context (fig. 7.128). However, the analysis of these forms and their application has been more intuitive than a measured or surveyed response to the context. Perhaps a deeper reading of the typology of built forms in the town would have enabled the forms to be more specific to their place. However, this could risk a focus on one specific period in the history of the place. In contrast, a reading of typology as described by Rossi has the potential to mediate between historic forms and a contemporary condition. As Rowe describes, the type has potential to:

> *"release modern present from the stranglehold of here and now. Furthermore, unlike various forms of traditionalism, such strategies possess this important capacity without*

29 Giovanna Borasi, 'Visual Exchanges between the Privacy of the House and the Vibrancy of the Street', in *Some Ideas on Living in London and Tokyo*, (Basel: Lars Muller, 2008) edited by Giovanna Borasi, p100.
30 Peter Rowe, *Modernity and Housing* (Cambridge, Mass: MIT Press, 1993) p.32.

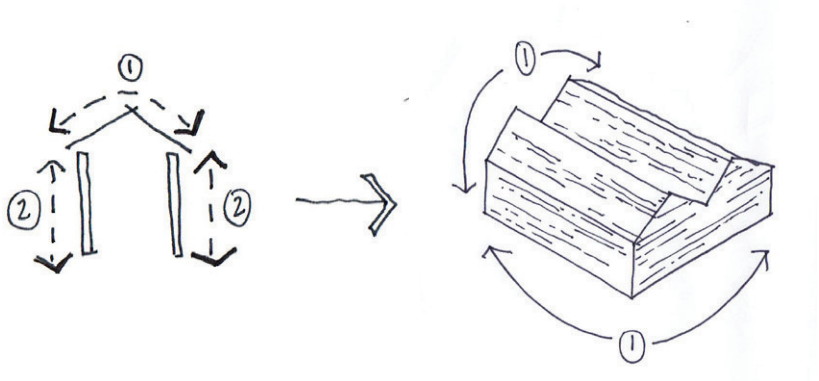


Fig 7.129. Material solidity

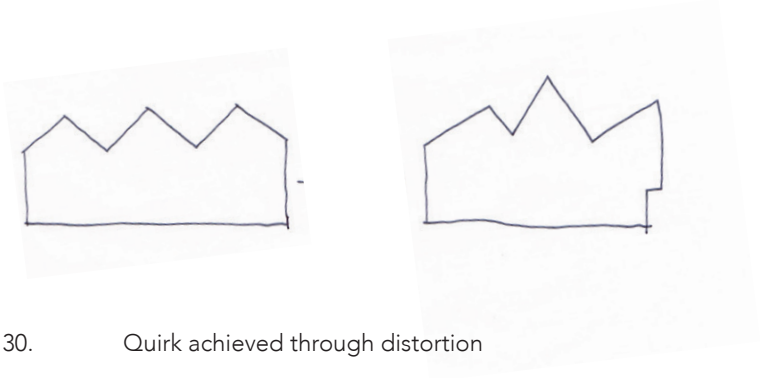


Fig 7.130. Quirk achieved through distortion

Fig 7.131. Material choices

running the risk of referencing a place, so to speak, in a particular past era."[31]

Language

-Material solidity:

The material palette derives from a study of the typical materials of the town. While combinations of material including stone, brick, render and timber were identified, the predominant material of the town is red brick. By using this material the building is designed to present a sense of permanence and solidity.

The tectonic strategy of heavyweight load bearing masonry walls and a brick clad pitched roof contrasts with lightweight flat roof connections between the building volumes (fig. 7.129).

The brick volumes have predominantly punched openings with bronze finished aluminium frames, while the linking walkways are heavily glazed with composite bronze finish aluminium and timber framed windows. This differentiates the circulation spaces from the building volumes themselves. Representation of the project though the person's eye view in perspectives aims to explore the presence of the building in its context.

The material choices- imported brick and bronze window frames (fig. 7.131)- need to be further refined to make them more specific to the place. The design response to the found materials and colours was to find a brick that was similar in texture and appearance, without looking for local sourcing or an abstraction of the materials found. The material and detail approach bears a close resemblance to that of Sergison Bates, and in this sense has been successful. However, a more detailed exploration of material an detail would aid this process. This should be examined further in the next design proposal.

-Quirk:

The quirk has been explored through the manipulation of the simple forms in response to function and daylight, in particular the roof forms (fig. 7.130). This differentiates the blocks, breaks the regularity of the form when viewed from the hinterland, and expresses potential differences between them.

31 Peter Rowe, Modernity and Housing (Cambridge, Mass: MIT Press, 1993) p.33.

-Presence:

The building presents an 'all over' appearance and a direct construction, clearly legible and not concealing additional structure or unnecessary layers. Where necessary, the brick inner and outer skin is supported by precast concrete lintels and at eaves level by a concrete ring beam. These further demonstrate how the building is constructed rather than hiding additional structure. Detailing is minimised through simplicity of form and concealed gutters, presenting a visually intense brick form that has a sculptural presence.

While three dimensional drawings describe the presence in place, this is primarily a visual approach, whereas the literature identified presence as being experiential. This could be explored further through exploration of how the building meets the ground, the experience of it at close quarters and investigation of important details such as window openings, eaves and thresholds.

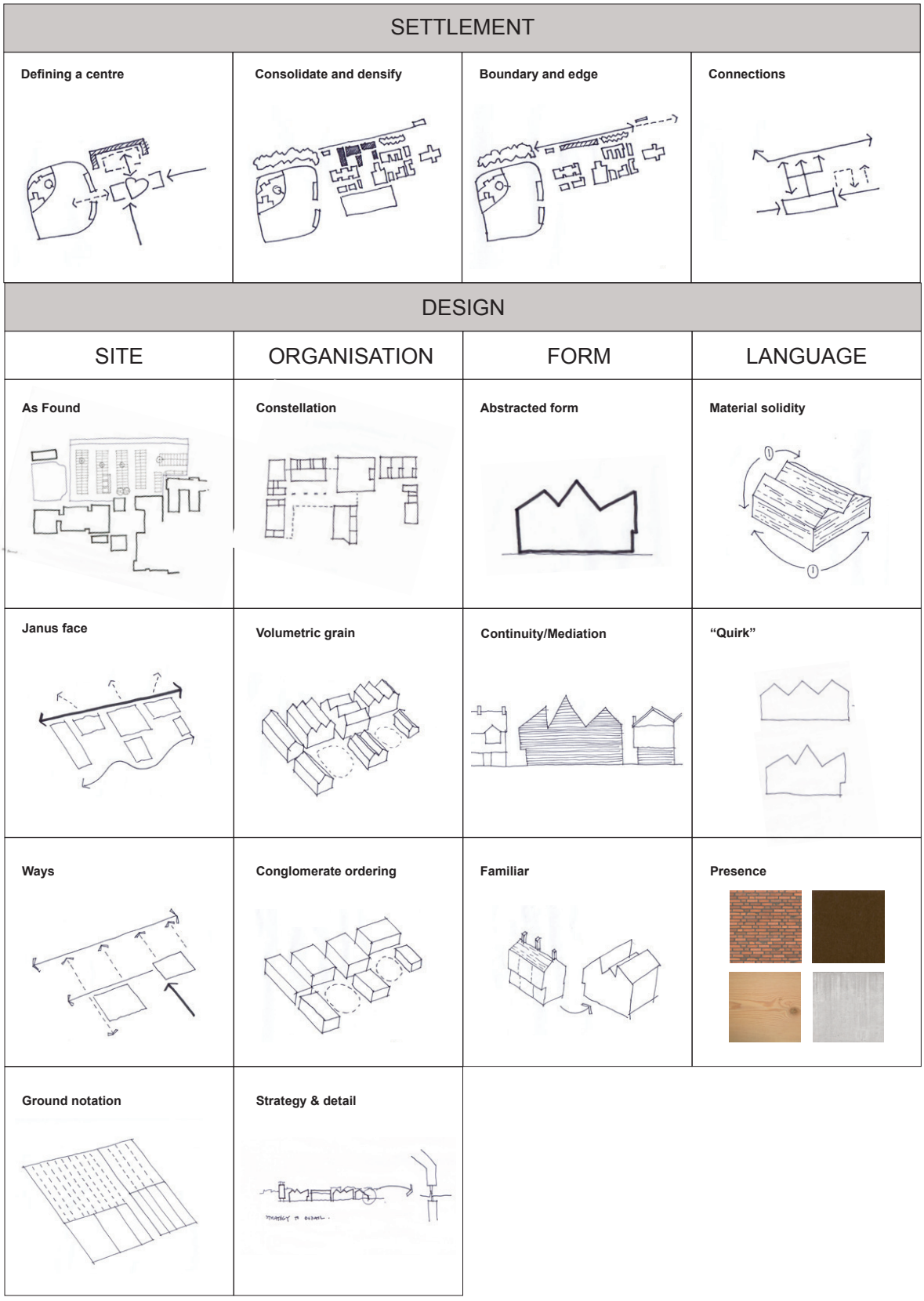


Fig 7.132. The illustrated operational framework

7.4.12 Findings

In this study the outcome of applying the framework is very different to the Raven Lane live-work housing project (fig. 7.132). As a larger building on an edge site, the need to knit the project into the context is more important, especially as the site is highly visible from the hinterland. The site offered the opportunity to reinforce the edge of the old town with a new public building that strengthens the town fabric and introduces new public uses. Its larger size and shape made the response to setting multi-faceted and meant there were a wider range of completing demands and requirements to be considered. The site was less constrained, offering a wider scope of possible design avenues to explore. The reliance on a framework for design helped to narrow the possibilities and explore ways to mesh the proposal into its context and provide a sense of continuity.

The need to return to analysis of the settlement highlighted weaknesses within the mapping process. This was particularly evident in the lack of three dimensional exploration of place; ways and connections; and of material and detail. Additional mapping studies will be carried out to address this in the second design study.

It is recognised that mapping and design are perhaps not separate entities, as they were considered for the Ludlow design studies, but that they inform one another and are part of the same design process. The mapping was returned to as gaps appeared and further information was needed to inform the design process. The traditional sequential process of site analysis followed by design is not applicable in this case; instead a reciprocal relationship and dialogue between designer and context continues throughout the process. This requires the design framework to alter to combine the principles derived from Snozzi with the operational framework, rather than treating them as separate stages of a process. Analysis and design should then not be separated, but instead design should be seen as a way of finding things out that is questioning and exploratory.

The framework was used as a design tool and the design outcome was driven by its application. The approach taken in Raven lane was inflected with the Swiss approach in the Food Centre, where principles of abstraction, reduction, constellation and presence were applied more thoroughly. Some areas of the framework were more successful than others and more significant in the design outcome. The outcome is morphologically strong, relating well to the surroundings and extending the town successfully. Ways and ground notations had a significant role in the development of the design proposal as a method of integrating the design into the context. Ideas of hierarchies of space and routes were important and drove the development of the design. However, the hierarchy and scale are less successful; further investigation is required to ‘fine tune’ these to better connect them with the grain of the town. Similar attention to other

Fig 7.133. Three key views of Ludlow from the hinterland and their respective depth of view; drawings adapted from Stephen Owen, Classic English Hill Towns: Ways of Looking at the External Appearance of Settlements' Journal of Urban Design 12.1 (2007) pp. 93-116.

aspects such as abstract and familiar forms could enhance the design proposition.

The importance of the person's eye view to the development of the design suggests a continued relevance for a townscape or picturesque approach within the framework. In particular, the visual impact of new development on the often strong and distinctive skylines of rural towns is an additional consideration that needs to be made explicit in the framework. Cullen and Lynch identify the importance of the skyline for placemaking, while Stephen Owen describes it as:

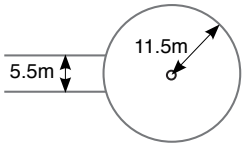
> *"a clear manifestation of the way that, in the early development of the town, people responded to the shape of the land in locating and designing key buildings, and it is one of the most recognisable and compelling elements of the town's identity."*[32]

Analysis of a settlement from important vistas can help identify highly visible elements of a town's morphology but can also highlight opportunities for enhancing the skyline (fig. 7.133). This has parallels to London's protected views, viewing corridors and panoramas. Here, digital perspective views have become the accepted norm for representing new development and judging its impact. The "*significance, scale and magnitude of effect*"[33] of new development on the qualities and characteristics of a view are assessed through an Accurate Visual Representation (AVR), precisely locating a development and demonstrating its visibility and form. The three dimensional views from the landscape have a similar approach and a similar process could be undertaken for new development in small towns. Key views to the settlement from the hinterland could be identified and the impact of new development on the skyline and figure ground assessed. The importance of the distant view is due to the highly visible nature of the site, located on the edge of the ridge, but also represents the increasing importance of the person's eye view in this project. However, this exploration is lacking in consideration of nearness as well as distance, which might be considered in the framework under 'strategy & detail'. The views explored are all distant views and not the direct experience of the building. A series of views that is similar to Gordon Cullen's serial vision studies could enable consideration of both the impact of a project from the surrounding landscape but also how it sits within the streetscape and the experience of arrival and entry.

The design process has highlighted statutory requirements that could hinder the application of the framework (fig.7.134). Close proximity to other buildings causes overlooking and possible day lighting issues; these can be overcome through design moves such as oriel windows and stepping the building line, but this may be a concern for some clients. The narrow width of lanes

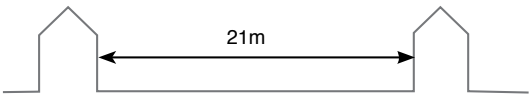
32 Stephen Owen, 'Classic English Hill Towns: Ways of Looking at the External Appearance of Settlements' Journal of Urban Design 12.1 (2007) pp. 93-116. (p.105).
33 Mayor of London's Office, London View Management Framework: Supplementary Planning Guidance (London: Greater London Authority, 2012) p.8.

Refuse vehicle access:

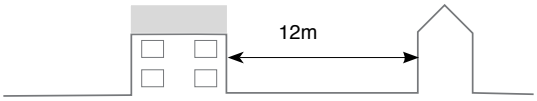


23m diameter turning circle
5.5m wide access road

Proximity:

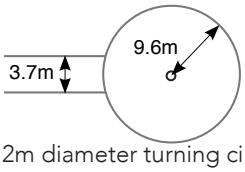


21m between habitable windows

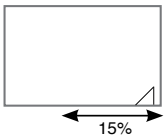


12m between buildings

Fire access:

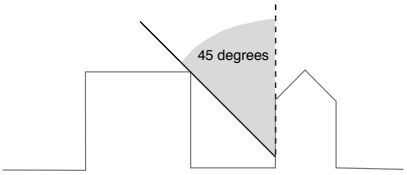


19.2m diameter turning circle
3.7m width access



Access to 15% of perimeter of building (if less than 11m high)

Right to light:



45 degree rule

Fig 7.134. Aspects of planning and building regulations that are in conflict with the projects in Ludlow: Access for emergency and refuse vehicles; right to light; and overlooking.

and ways and the scale of public spaces in and around the scheme are not sized to allow fire tender or refuse vehicle access, which would cause issues with building control. This suggests that a potential barrier to the application of the framework exists and there is a tension between statutory requirements and the essence of place that needs to be explored further.
Through the design process, the most successful scales have been working at site scale (1:1000 or 1:500) and at detailed level. At the building scale (1:100 and 1:50), design progress in relation to the framework was less successful, as there was a tendency to consider the building layout in more detail than was necessary and get unnecessarily involved in design of the day-to-day spaces of the building. Instead, moving from the broad picture of the building in its wider context to the specifics of construction, materials and detail can define the scale, form and mass of the building as well as the tectonic language and constructional detail of the building, key aspects of the relationship between a building and its setting.

The drawings were limited in their display of the wider context. This could be a reflection of the need for more exploration of the site 'as found' or a need for drawings that demonstrate wider links and connections to the wider towns and hinterland. For example, the Food Centre would benefit from long sections that run from the hinterland to the ridge, through the site and across Castle Square to test the proposal in the wider town.

Peer review has demonstrated that design produced through the operational framework is an acceptable form of development for the site and that the brief, massing and form are appropriate. It has similarities to the source material and precedent, particularly to the work of Sergison Bates; the form, use of material and detail all have a grounding in the work of the English realists. While Raven Lane Live-Work was less successful in exploring the aspects of the operational framework derived from German-Swiss architecture, in this design there is a closer relationship. Aspects such as abstract forms, volumetric grain, material solidity and constellation were explored with varying degrees of success. However, the final outcome could be considered neo-vernacular; a polite response that draws from the character of the context but does not challenge it. In contrast, German-Swiss architecture relates to its context but are unashamedly contemporary in form and material. Perhaps a more radical architectural language could offer a greater critique of existing conditions and suggest viable alternatives, rather than reinforcing the status quo. The design is perhaps too referential to the source material and precedent rather than embodying the architectural approach of the author.

SETTLEMENT			
Defining a centre	**Consolidate and densify**	**Boundary and edge**	**Connections**

DESIGN			
SITE	ORGANISATION	FORM	LANGUAGE
As Found	**Constellation**	**Abstracted form**	**Material solidity**
Janus face	**Volumetric grain**	**Continuity/Mediation**	**“Quirk”**
Ways	**Conglomerate ordering**	**Familiar**	**Presence**
Ground notation	**Strategy & detail**		

Fig 7.135. The framework as applied in Ludlow

7.5 REVIEWING THE OPERATIONAL FRAMEWORK

7.5.1 The success of the operational framework

The two design projects represent two different types, scales and uses of building on sites identified through application of Snozzi's approach. Working on a small-scale infill in Raven Lane and a larger public building on the edge of the centre aimed to test the operational framework on two sites typical of those found through the mapping process (fig. 7.135).

The briefs developed alternatives to recent development in the town. In both cases, the sites were backland sites that were used as car parking. While these are prime sites for redevelopment, neither project fully considered effect of removing car parking or its relocation elsewhere in the town. Yorkshire Forward identify the importance of accessibility to the economic viability of towns, as well as the provision of a mix of on and off street parking in convenient locations for visitors and residents.[34] Further consideration should be given to the need for parking and its convenient relocation when considering sites such as these; this is a consideration for choice of site and its practicality for the next design study.

The projects achieve the aim of strengthening the town, creating an architecture that fits into its place that draws from tradition but interprets and abstracts this into contemporary forms. The projects demonstrate an approach that guarantees continuity and the status quo. While using a contemporary form, they are referential to the surroundings and draw from context. The result of both projects is scenographic and relied on the visual as a way of integrating architecture into the town context. The outcome is a polite neo-vernacular architecture that draws its inspiration from the place but does not offer an alternative to the status quo. The strength of Snozzi's approach is that despite stylistic differences, the projects strengthen the town through their location and urban relationships. His projects are transformative rather that sustaining, which is where the Ludlow projects fail. In the next design study this should be explored further through more consideration of the transformative aspects of the brief, a clear response to need and the architectural form and language.

In the designs, aspects of site were carefully considered and were highly influential on the proposals. The importance of ways and routes- a characteristic that is intrinsic to the town- influenced the use of a lane and yard as a heart to the Rave Lane housing and as a way of weaving the Ludlow Food Centre into the backland context in which it sits. While the scale

34 Yorkshire Forward, *Renaissance market town programme: Car parking research* (Leeds: Yorkshire Forward, 2007) p.2.

and proportion of routes were considered and drove the design, this is not as successful as the exploration of volume and grain. Perhaps more consideration of the pedestrian than the vehicle is needed and a clearer distinction of the purpose and scale of routes is required to improve this aspect of the design.

Through the consideration of ways, scale of space and massing, both projects aim to recreate the proximity and intimacy of medieval fabric. However, this impacts on the success of the projects in meeting statutory requirements; neither project fully meets expected planning authority or building regulation requirements. The proximity of buildings in the historic town does not have to respect overlooking distances or rights to light to the same extent as new development. Similarly, distances between buildings and dimensions of yards and lanes limit access for refuse vehicles and emergency services. Perhaps there are design moves that could be made to compensate for this, in particular the distance between habitable rooms for overlooking. Design moves such as offsetting habitable rooms or using rooflights, oriel windows, or cowls to windows could mitigate these issues. Projects such as Peter Salter's Walmer Yard housing scheme in London demonstrate this can be achieved. Here, four houses are clustered around an intimate central yard. Privacy and quietness are achieved across the five metre wide courtyard through a layered system of louvres and absorbent materials alongside a range of window types, from clear openings to bay windows and light chutes. Habitable rooms are arranged so that no overlooking between houses can take place.[35]

A method of encouraging this proximity and continuity of scale with the historic core while ensuring this is not abused in the future could be to embed these rules through flying freeholds, rights of way, easements and protected views. This would ingrain proximity and scale within development while giving a sense of control over development in the future. Alternatively, rules for development in historic towns could be devised that prioritise scale, proximity, function, daylight and view.

In both design studies, form and mass were prioritised to ensure the scale and volume respected the context. This was at the cost of other areas of the framework, in particular the exploration of construction, tectonic and abstraction. The tectonic theme was primarly explored for visual effect, rather than detailed resolution or the material relationship with the wider context. Abstraction only extended as far as volumetric studies and the overall form and mass of the buildings. A next step in this exploration could be to abstract at various scales across the project, for example extending abstraction to detail, roofscape and materials.

35 Peter Salter, Four Houses in London, a 'back-lot' development, an example of packed urban dwellings in which privacy, quietness and defensible space are of strategic importance (Cardiff: Cardiff University, date unknown) Available at <http://orca.cf.ac.uk/49330/1/Salter%20four%20houses%20in%20London%20REF.pdf> [accessed 23 September 2015].

LANDSCAPE	MORPHOLOGY	SPATIAL CHARACTER	FORM	TECTONIC
AIM: Understand relationship between town and hinterland; edge conditions; nodes; views in & out of the town.	**AIM:** Understand underlying structures of town- roads, paths, public spaces, burgage plots, etc. To enable designer to integrate and respond to these patterns.	**AIM:** Understand scale and pattern of development- the morphology of the town. Enable a response to context in terms of scale, proportion, form.	**AIM:** To create buildings that feel part of their place through reference, familiarity, response to surrounding buildings, but are also contemporary abstractions of these conditions.	**AIM:** Understand material and construction in the town and how to interpret this to meet contemporary needs. Design with weight and substance, an emotional connection with place.
Centre	**Ways**	**Volumetric grain**	**Abstracted form**	**Material solidity**
Edge/boundary	**Connections**	**Consolidation & densification**	**Familiar forms**	**Presence**
View and vista	**Ground notations**	**Conglomerate ordering**	**“Quirk”**	**Continuity/Mediation**
	As found	**Constellation**	**Janus face**	**Strategy & detail**

Fig 7.136. The revised and integrated framework to be tested in Ruthin

In the application of the operational framework, Snozzi's four themes were explored at settlement scale before the remaining themes were applied at site scale. There was a disconnect between the two levels of the framework that meant Snozzi's principles were only considered at settlement level and were less important for the design projects. This is not how the process works in Monte Carasso; in the examples described the principles are embedded in all aspects of Snozzi's projects, and not applied only at an urban scale. To address this the fraemwork is collapsed from two levels into one fully integrated framework.

7.5.2 Re-framing the operational framework

In response the findings, the operational framework was condensed from two parts into an integrated framework (fig. 7.136). This aims to reduce the separation between mapping at the settlement level and design moves at the scale of the site. The framework has been further reorganised into five themes:

- Landscape - the relationship between town and hinterland, edges, and important views and vistas.
- Morphology- the underlying structures of the town- roads, paths, public squares, ground notations and the as found character.
- Spatial character- scale, heirarchy, proportion and pattern of development.
- Form- reference, familiarity and abstraction.
- Tectonic- interpreting material and construction, weight and substance.

These themes have been selected to improve the clustering of related items in the framework and to move from the wider setting through the structure and morphology of place, to the form before considering construction and detail.

A further topic area has been introduced in response to the designs undertaken in Ludlow: View and Vista. The importance of the effect on a building on the skyline and from key landscape views was identified as important in embedding a building in its context and reinforcing edges (section 7.49). This will require additonal mapping exploring views in and out of towns to establish key vistas in which new development will have an effect.

7.5.3 Testing the revised operational framework

This revised framework will be tested in a design study in a second market town. Changing locations will allow the revised framework to be tested on a second town that may have different

strengths and weaknesses to Ludlow, allowing deeper exploration of the framework and a revised mapping process. It will also allow the transferability of the framework to be tested and the robustness of the framework in application to wider towns explored. The next chapter will describe a design study undertaken in Ruthin, a market town in North Wales, a town chosen for its more fragile historic fabric and the potential to engage in the town in a greater depth than Ludlow, as between 2009 and 2012 the author led Design Research Unit Wales' 'Ruthin: Market Town of the Future' project, a community led planning project funded by Ruthin Town Council and Beacon For Wales. This long term engagement in place offered an extended fieldwork process with repeated visits and overnight stays at different times of the year. This will be briefly described in the following chapter, before a design study on a site highlighted by the mapping process.

Fig 8.1. Ruthin, St Peter's Square

8.0 DESIGN STUDY 2: RUTHIN

8.1.1 Introduction

In this chapter, the revised operational framework is tested through a second design study in Ruthin, North Wales (fig. 8,1). The study aims to test the principles of the revised operational framework through its application in a second Marches market town. Its success will be assessed thorough the critical appraisal of one design project located on a site identified through the mapping process.

The Ludlow design study mapped a quintessential market town and tested a draft operational framework through two design projects. These designs were located on sites identified through a mapping approach developed from themes drawn from Monte Carasso- defining the centre, consolidation and densification, connections and boundary and edges. Review of the operational framework suggested the projects were successful in consideration of form, volume and connections, but were less successful in considering the scale and hierarchy of ways and the development of an architectural language. The projects consolidated the town but perhaps remain conservative; they could be seen as maintaining the status quo rather than transforming the town by proposing alternatives to existing conditions.

The final design study in Ruthin, North Wales, aims to test the refined operational framework in a town with a more fragile, damaged fabric than Ludlow. The effects of increased mobility, changing modes of employment, peripheral development and protection of the historic core are more evident in Ruthin than Ludlow and pose questions about the town's future.

The mapping process is extended to address shortcomings highlighted in the previous chapter. Through the mapping process, an interface site between the historic core and the surrounding suburban development is identified. Although not a type of site Snozzi has explored in Monte Carasso, the site embodies many of the challenges faced by UK market towns. Located between the historic core and low density twentieth century urban extensions, the site offers the potential to reconnect the historic core to the surrounding estates and to create a community focus that stitches the town together. The brief critiques a local council proposal to merge two primary schools and relocate them to the periphery of the town. Instead, the design emphasises the community benefit of schools being embedded in their communities and making education visible in the community. Alongside a primary school, a range of community facilities are proposed.

The chapter will introduce Ruthin, describe the mapping process and the selection of a site,

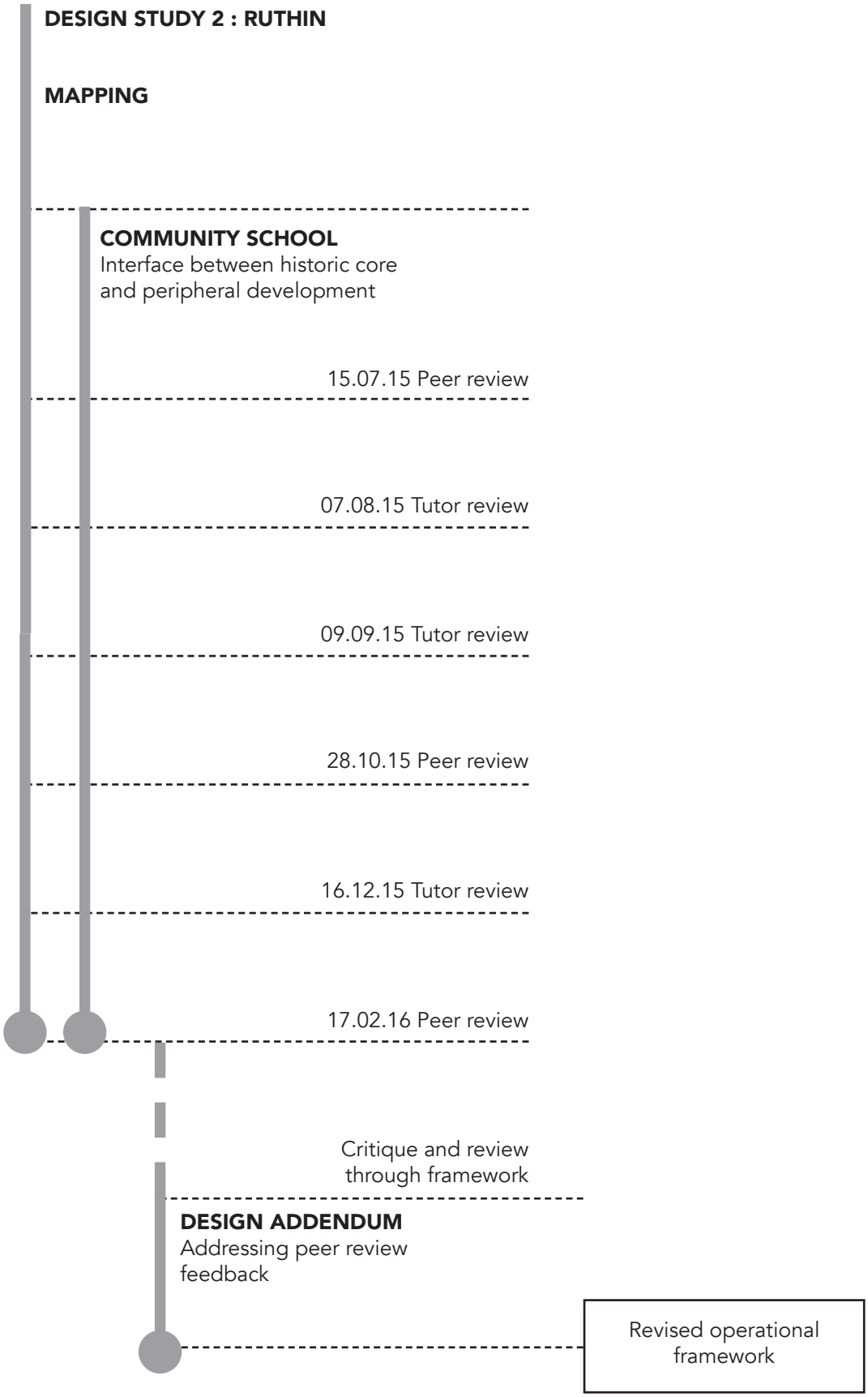


Fig 8.3. Timeline of the Ruthin design study

before describing the design process (fig. 8.2). The design will be reviewed through the operational framework, before a design addendum is illustrated that addresses peer review feedback. The chapter will conclude with a section of findings from the design study.

Fig 8.4. Aerial photo of Ruthin and its hinterland

Fig 8.5. A view of Ruthin from the east showing its freestanding nature within a rural hinterland

8.1.2 Introducing Ruthin

Ruthin is a small rural town of 5,200 people in Denbighshire, North Wales, located south of the urbanised North Wales coast and the A55, the main route from Northern England to Snowdonia and Anglesey (fig. 8.4). Ruthin means 'red fortress'[1]; the town has its origins in the medieval period, growing around a castle built in 1284 on an area of raised ground alongside a crossing over the River Clwyd in the dramatic landscape of the Vale of Clwyd (fig. 8.5). A market place along a ridge links the castle to the gothic St Peter's Church. Falling away from the ridge is a tight knit medieval fabric of two to three story buildings constructed on a grid of long, thin burgage plots. During the late Victorian period, a railway station was built that connected the town to the large urban centres of Liverpool and Manchester to the east and to the west to Snowdonia and Bangor. The railway continued in service until the Beeching closures in the 1960's.

As with many rural towns, the car has had a major impact on the town. A ring road built in the 1960's creates a natural boundary to between the historic town and recent suburban housing, retail and industrial estates, while to the south the medieval town gives way to parkland (fig. 8.6). St Peter's Square, the historic market place at the centre of the town, is dominated by a traffic island and car parking built during the 1970's (fig. 8.7). This interchange reduces the available space for public use and has forced the market out to the Gaol on the outskirts of the historic town. As in Ludlow, there are large car parks located around the town centre, both for public use and also for private use, such as parking for the council offices.

The town suffers from easy access to larger towns and cities, limiting its retail base to a local service role and leading to recent decline. The once popular street market has been relocated to the edge of town, while shop vacancies stood at 20% at the time of study.[2] Supermarkets and bargain stores located around the ring road have distorted the town's centre of gravity from St Peter's Square and affected local businesses. However, despite high vacancy rates, the town has escaped becoming a "*clone town*"[3] and maintains a majority of independent shops. The town also benefits from a number of major employers, including the head offices of Denbighshire County Council; analysis suggests over 60% of residents are employed in the town rather than commuting out of the town on a daily basis.[4] It is also a centre for education with a renowned independent school and local secondary school.

1 John Ayto, Ian Crofton & Paul Cavill, *Brewer's Britain and Ireland* (London: Chambers Harrap, 2015) p.23) <http://search.credoreference.com/content/entry/orionbritainireland/ruthin/0> [accessed 02.07.15].
2 Vacancy rates were calculated in Spring 2012
3 Ruth Potts, Andrew Simms and Petra Kjell, *Clone Town Britain: The Survey Results On The Bland State Of The Nation* (London: New Economics Foundation, 2005) p.14.
4 Michael Woods, 'Market Towns in Rural Wales: A Differentiated Geography', in *Rural Wales in the Twenty-First Century: Society, Economy and Environment,* edited by Paul Milbourne (Cardiff: University of Wales Press, 2011) pp.149-168 (p.157).

Fig 8.6. In places the town maintains a strong relationship with the surrounding countryside

Fig 8.7. St Peter's Square

Fig 8.8. Ruthin Craft Centre

The outskirts of the town are dominated by low-density suburban housing estates developed since the 1930's. These estates dwarf the historic town core and are disconnected from it by major trunk roads. Crossings and pedestrian routes between the two areas are poor, which encourages car use.

The town attracts large numbers of visitors, the majority of whom are attracted by the internationally renowned and award winning Craft Centre located on the site of the former railway station. Designed by Sergison Bates Architects (completed 2008), the Centre's changing exhibitions and studios attracts tourists and are popular with local people, but its detached location on the ring road to the south of the historic centre makes encouraging tourists to visit the town centre a challenge. To address this, an arts trail has recently been constructed to lead visitors to the craft centre into the historic town. There is potential for the town to become a centre of craft activity founded on international importance of the craft centre, the arts trail and the increasing number of craftspeople and artists resident in the town and hinterland.

Fig 8.9. Market town of the future vision: Illustration with all the proposed actions to be taken highlighted.

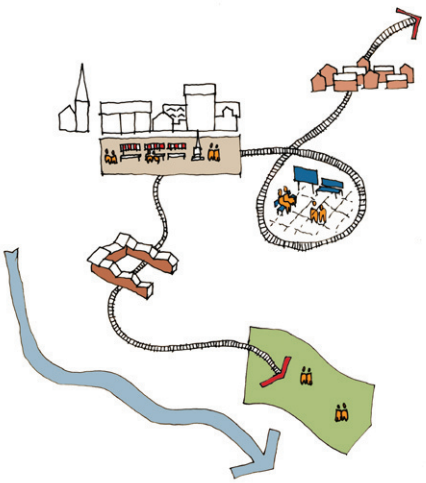


Fig 8.10. (left): Market town of the future vision : concept sketch
Fig 8.11. (right): Photographs recording consultatin activities undertaken as part of the project

8.1.3 Ruthin Market Town of the Future

As was identified in the previous chapter, the author led Design Research Unit Wales (DRU-w)'s 'Ruthin: Market Town of the Future' project, a community-led planning project funded by Ruthin Town Council and Beacon For Wales (figs. 8.9 & 8.10). The 'Market Town of the Future' placed emphasis on understanding the built environment and public realm and aimed to develop a transferrable process of working and engagement that could be applied to other towns as well as for the benefit of the people of Ruthin. The resulting community-led plan considered the future of Ruthin over twenty years and is conceived as an incremental process that can be implemented as and when funding becomes available. It is designed as a series of linked, small-scale, affordable interventions that create maximum impact from minimum means.

Engagement with the town over three years with numerous fieldwork visits, public consultations, exhibitions and events has generated a greater understanding of the place than was achieved in Ludlow. While the design case study to follow is focused on the built environment, landscape and spaces, engagement with the people of the town has informed this process. While the finding and scale of intervention possible in the 'Market Town of the Future' project was limited, the design case study builds upon this primer project to suggest locations for larger scale interventions.

8.2.1 The mapping process

The following section presents the mapping of Ruthin. This is divided into two parts: firstly, a parallel study to that carried out in Ludlow (8.3.2 Mapping Phase 1), presented in the same order and format; secondly, presentation of additional mapping carried out to address shortcomings identified in the mapping process (8.3.3 Mapping Phase 2).

As was found in the Ludlow design study, the fieldwork process was lacking in two ways: the extent of engagement with the place and its three-dimensional exploration. In Ruthin, a longer term engagement with the town has enabled an extended fieldwork period spanning two years over multiple visits and extended periods in the town. The extended mapping explores views and vistas; material, construction and detail; the public realm- squares, yards, car parks and streetscape; views and vistas to and from the town; plots and buildings; and long sections through key streets and spaces. Analytical sketches interpreting the mapping are presented, before a further interpretative drawing that tries to highlight key aspects of the sense of place is illustrated.

8.2.2 Mapping phase 1

Fig 8.12. Town and surroundings: Located in the vale of Clwyd, the historic core of the town is located on a north-south ridge at the base of the valley alongside the river Clwyd. Around the dense historic core historic town have grown low density housing estates, retail and industrial areas. To the north west of the town, around a bypass toward Denbigh, industry has grown; for example a cement works and the relocated cattle market are on these estates.

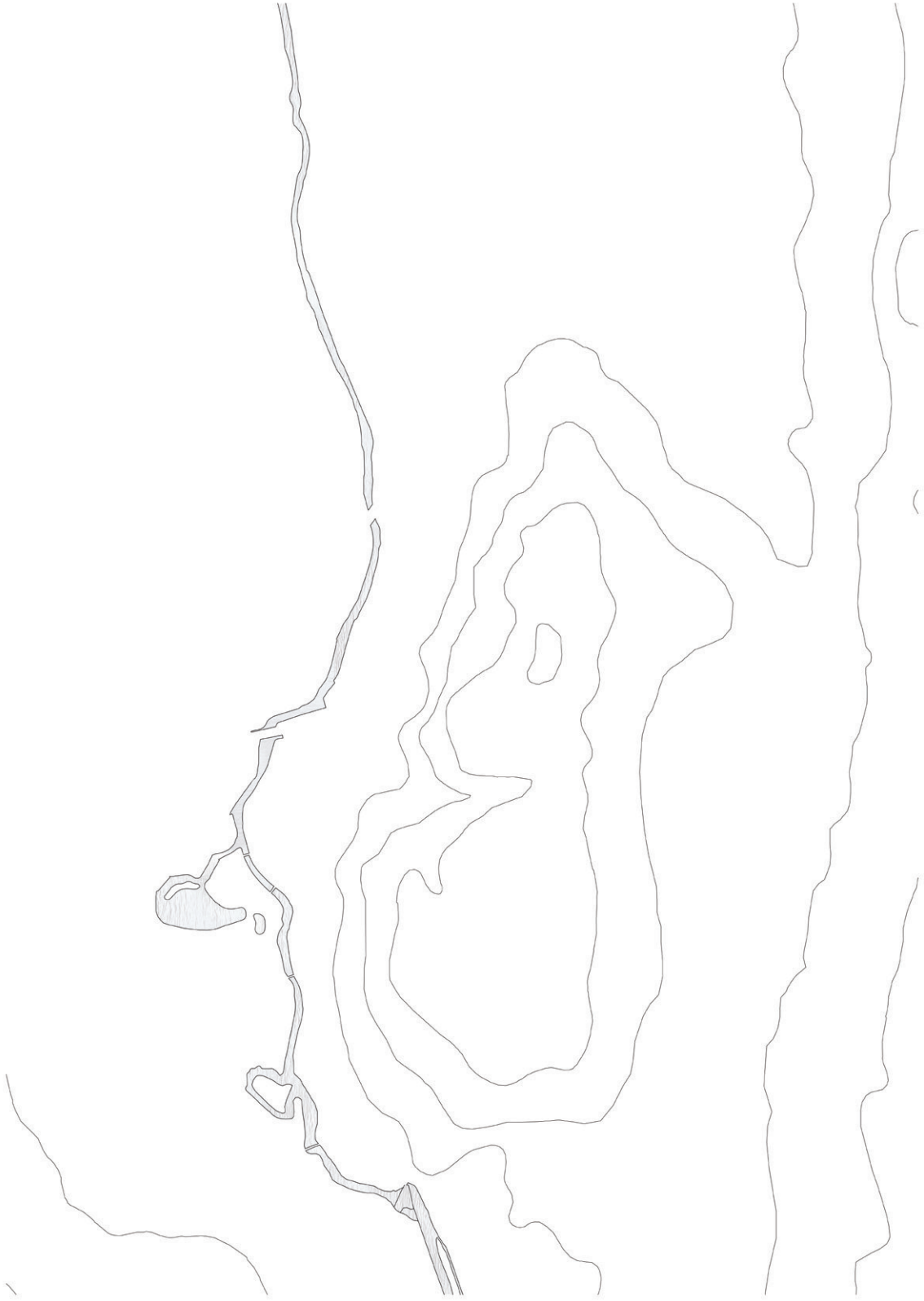


Fig 8.13. Landscape- topography: The town is located on a north-south ridge alongside the river Clwyd. The ruined castle is located to the south of the ridge, while St Peter's church occupies a site to the north of the ridge. St Peter's Square, the traditional market square, links these two buildings, with the major streets falling away from the ridge to the east and west.

Fig 8.14. Landscape- vegetation and open space: To the south the town has a clear boundary to farm and park land. Pockets of green space follow the route of the ring road to the east which have the potential to link to green space along the riverside, creating safe pedestrian routes around the town. The church yard the centre of the town is the only green space in the dense historic core.

Fig 8.15. History and growth: The historic plots show the dominant east-west street, a drover's route, and the river crossing. The town is not planned as Ludlow was; the burgage the town shows a pattern of organic growth along the primary streets. A linear market developed along the ridge, which was gradually infilled with civic buildings. A covered market and town hall stood at the heart of the market square, where the clock is located today, but was demolished in the nineteenth century.

Fig 8.16. Morphology: The morphology of the town clearly shows the dense medieval core of the town, with strong street edges and a degree of back land development within the burgage plots. Compared to Ludlow, the historic fabric is more fragmented and less well defined. Twentieth century development is low density: a light industrial estate to the north, and housing at the east and west of the historic core. There is a degree of separation between the historic town core and these later developments.

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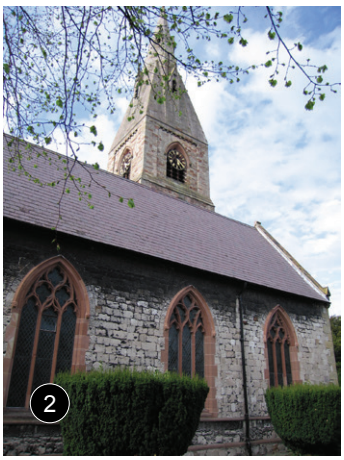
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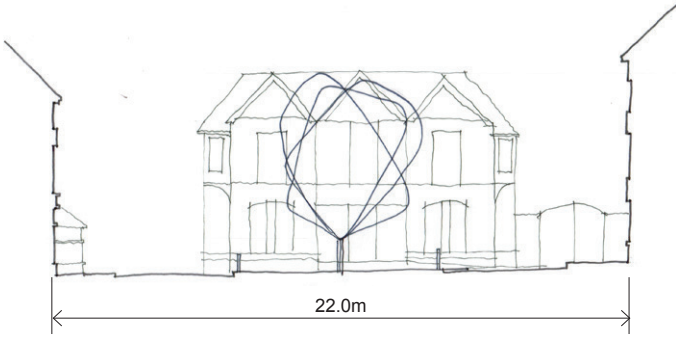
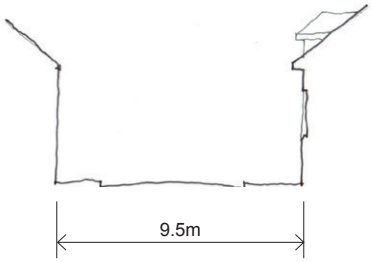
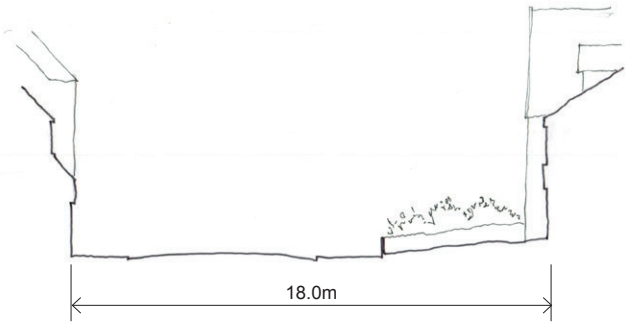
Fig 8.17. Key buildings & spaces: Major public buildings are located around St Peter's Square but none front onto it. The major medieval buildings- the ruined castle, Nant Clwyd-y-dre, (a recently renovated medieval townhouse and popular tourist attraction) and St Peter's Church run north-south along the ridge. There are numerous Victorian civic additions which are more peripheral to the historic core. The Gaol (county archive and tourist destination) is sited alongside the river; the indoor market and council offices located along a Victorian road that led from the Square to the railway station, formerly located on the site of the Craft Centre).



Square St Peter's Square

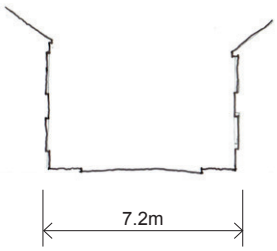


Market Street (upper)

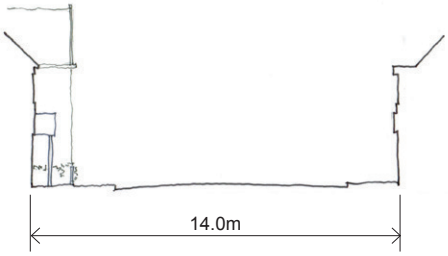


3 Market Street (lower)

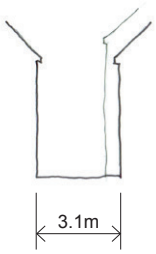
Street



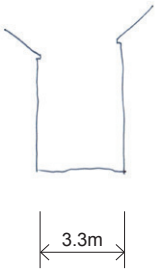
Clywd Street (upper)



5 Clywd Street (lower)



Castle Street



7 Castle Street

Lane

Fig 8.18. Ways- scale and enclosure

Fig 8.19. Routes and ways: A semicircular ring road skirts the north of the historic core, relieving the town centre from through traffic. This edges of this route are ill defined and dominated by car parking. The Breic roundabout to the north west is a major intersection, flanked by the council offices, Craft Centre and Tesco supermarket. St Peter's Square is dominated by the car, with town centre parking on the Square and a traffic island at its centre.

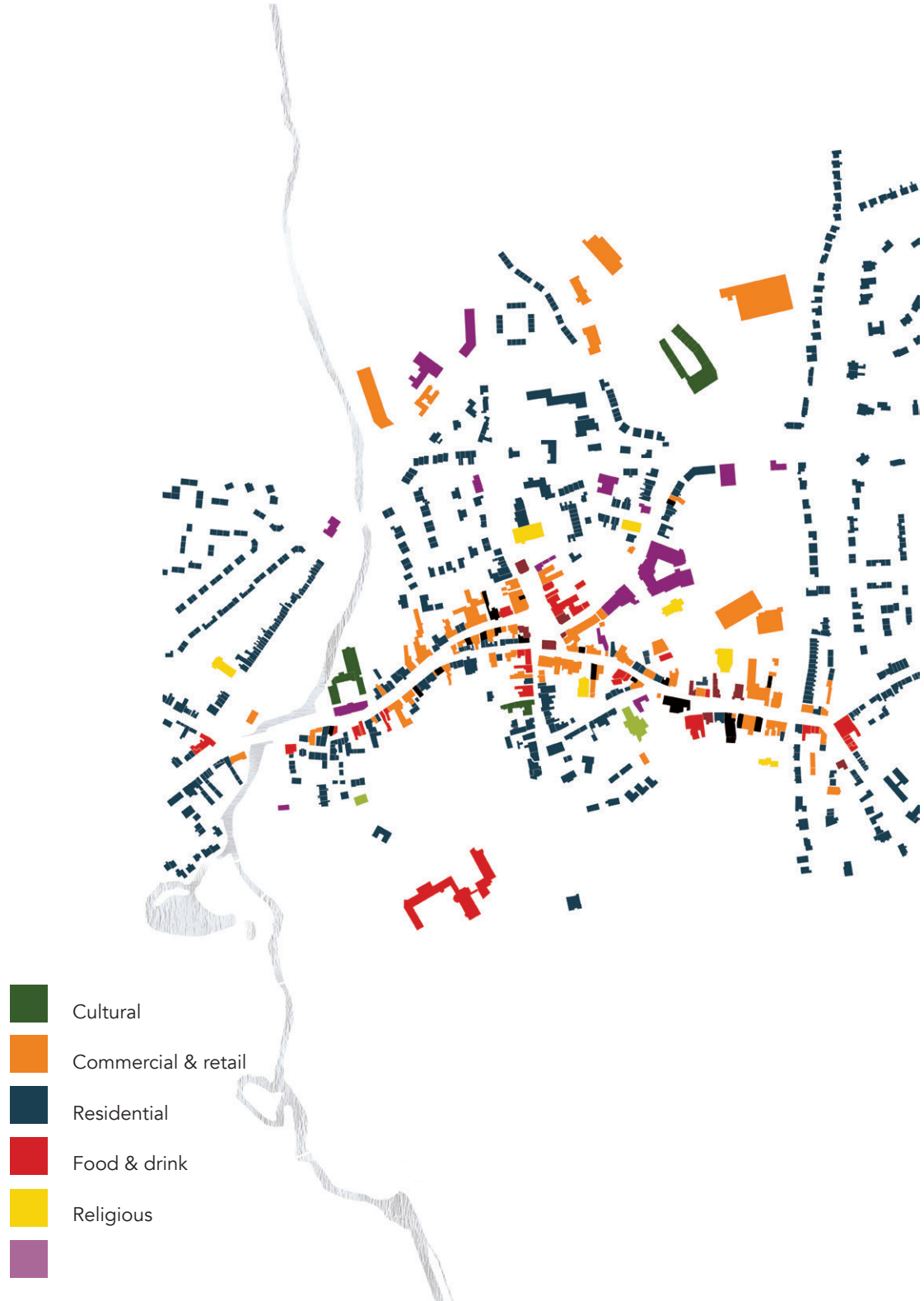


Fig 8.20. Land use: Analysis of land use highlights the dominance of commercial and retail space along the east-west Well Street and Clwyd Street. Low density residential is found on peripheral locations around the town centre. The land use is less regimented than at Ludlow; cafes, homes and public houses are found even on the major commercial streets.

Fig 8.21. Planning constraints: Overlaid on this map are the planning constraints identified in the Dengighshire County Council Local Development Plan. A strong development boundary is highlighted to the south, where the town meets farm and park land, but to the north the development boundary is less defined. The town centre covers St Peter's Square and upper Clwyd Street to the west. To the east this extends to the ring road, where supermarkets and bargain retailers are located. Pockets of recreational amenity space are identified along the river and ring road, and two major sites for housing development are identified.

8.2.3 Mapping phase 2 - additional studies

Fig 8.22. The wider context of the town, showing the dense medieval core and low density 20th century peripheral development. To the east of the town on the Mold Road are two major secondary schools, Ruthin Independent School and Ysgol Brynhyfryd. The town is freestanding with sporadic houses and farms in the surrounding hinterland.

1 Fig 8.25. Ruthin with Moel Famau behind

2 Fig 8.24. Ruthin viewed from Moel Famau

3 Fig 8.23. View from the A525 near Rhewl

Fig 8.26. Major views to Ruthin from the surrounding landscape.

1 Fig 8.27. View from the A525 near Rhewl

2 View east from Wynstay Road, over a supermarket car park

3 Fig 8.28. View north east toward the craft centre

4 Fig 8.30. View west down Upper Clwyd Street

5 Fig 8.29. View from Lower Clwyd Street

Fig 8.31. Major views from Ruthin to the surrounding landscape. These views are all from the historic core, which despite its urban nature has a strong visual connection to the surrounding hinterland.

Fig 8.32. Walking distances from the town core. Each band represents a one minute walk. The historic core can be crossed in less than ten minutes, while the most peripheral housing estates are a fifteen minute walk to St Peter's Square.

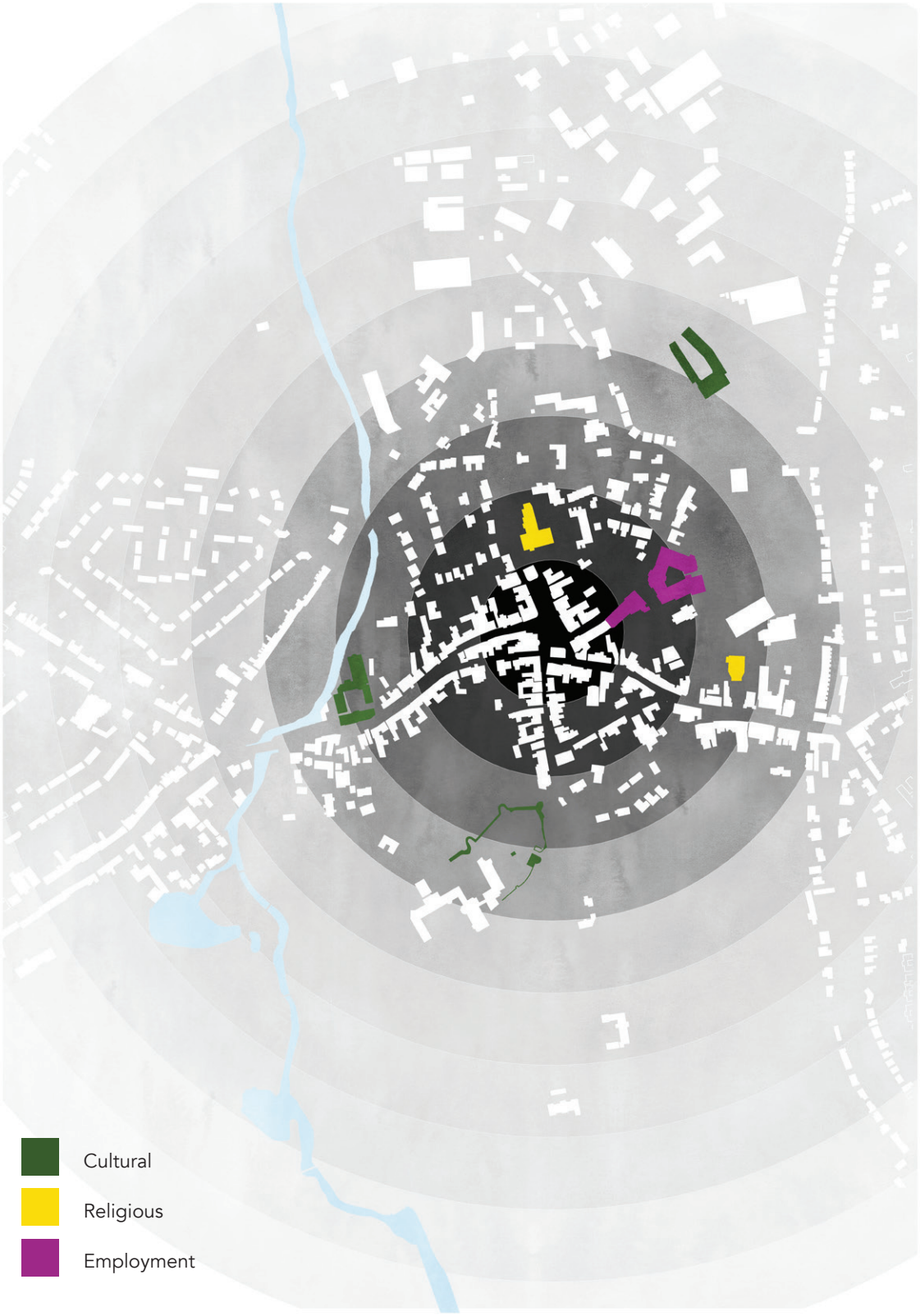


Fig 8.33. Walking distances and major buildings: Most major buildings are within a five minute walk of each other. Ruthin Craft Centre is the most peripheral; it is difficult to attract tourists from this building to the centre of the town. Two major barriers exist: the topography, which deters some visitors, especially the elderly and infirm; and the ring road, which separates the Craft Centre from the historic core and is poorly served by crossings and attractive pedestrian routes.

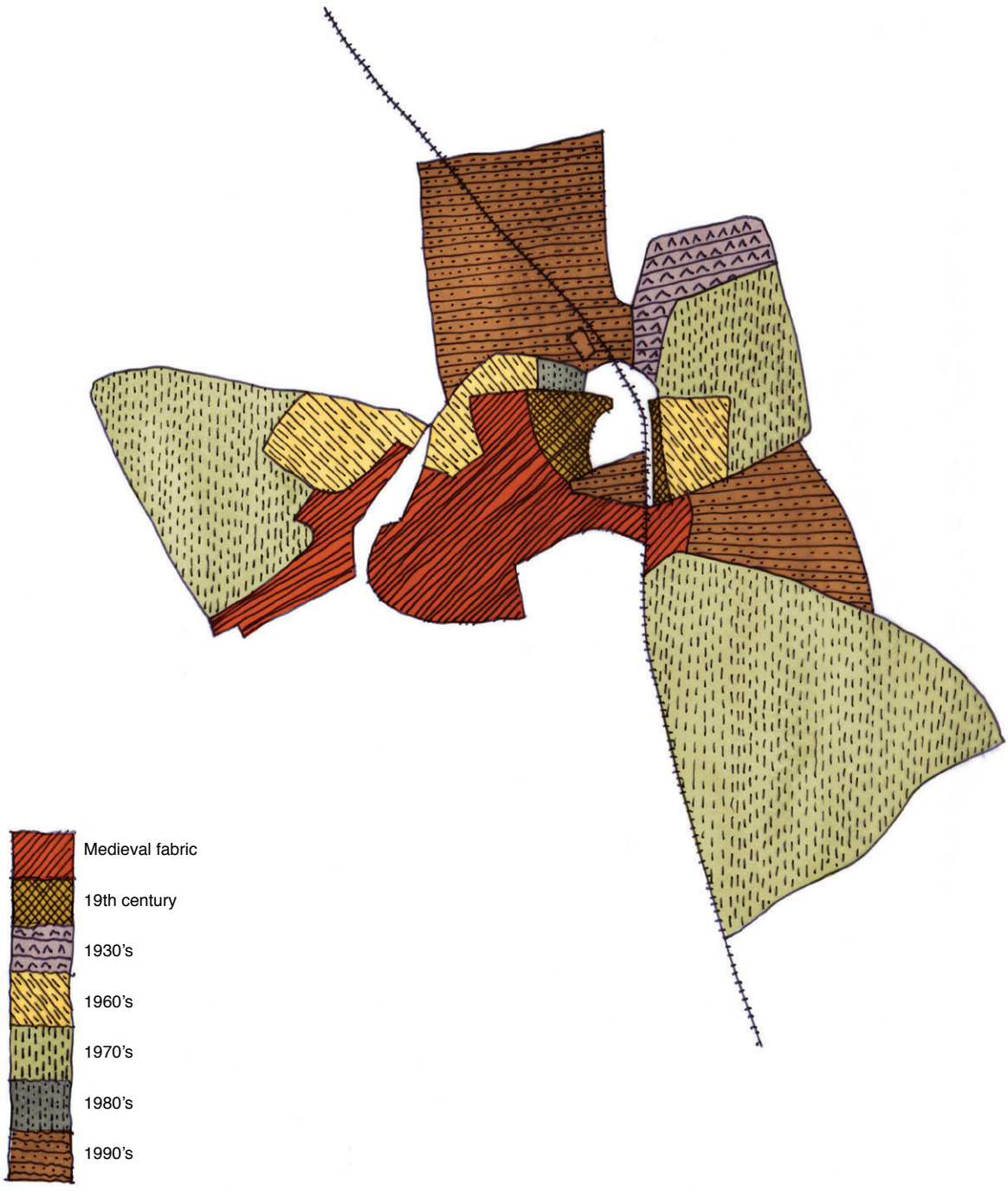


Fig 8.34. Pattern of development: Clear phases of development are identifiable in the town. Development from the foundation of the town until the Victorian period was contained in the town core. The arrival of the railway, with Ruthin Station located on the Craft Centre site, led to the creation of Market Street connecting the station to St Peter's Square. Twentieth century urban extensions surround the town to the west, north and east, dwarfing the historic core.

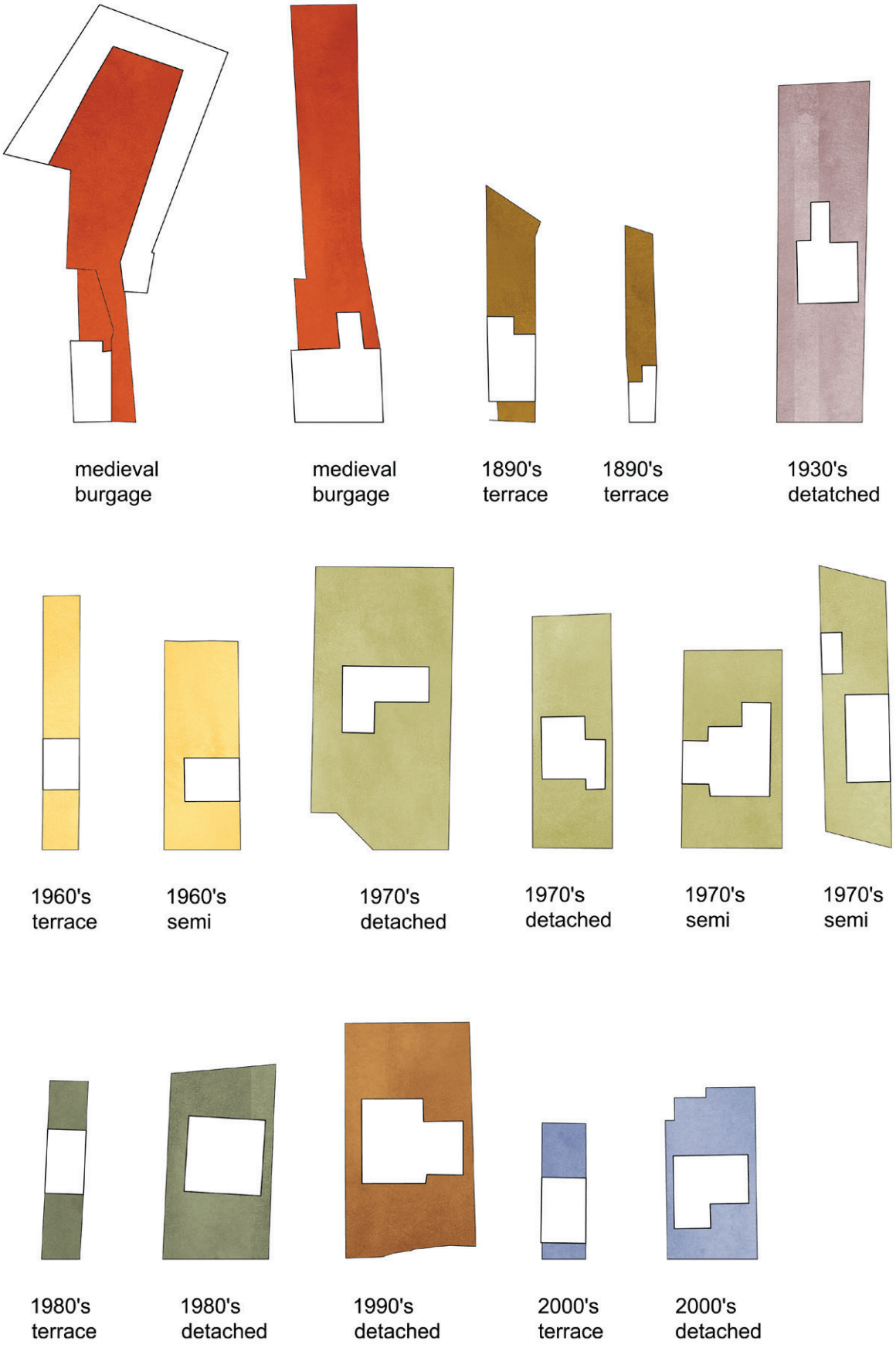


Fig 8.35. Plots and buildings: A comparison of typical plots in each phase of development. Unlike Ludlow, burgage plots are irregular due to the organic layout of the town, but a strong street frontage is maintained. Terraces dominate 19th century additions, while detached and semi detached houses characterise 20th century development. The location of the building on the plot in these later homes suggests a less defined streetscape with driveways and front gardens rather than buildings edging the street.

Fig 8.36. Ways- public and private car parking: Mapping car parking demonstrates the extent of surface parking around the town. Major car parks are located around the ring road, with a clustering around the Breic roundabout where Tesco, Ruthin Craft Centre and the council offices are located.

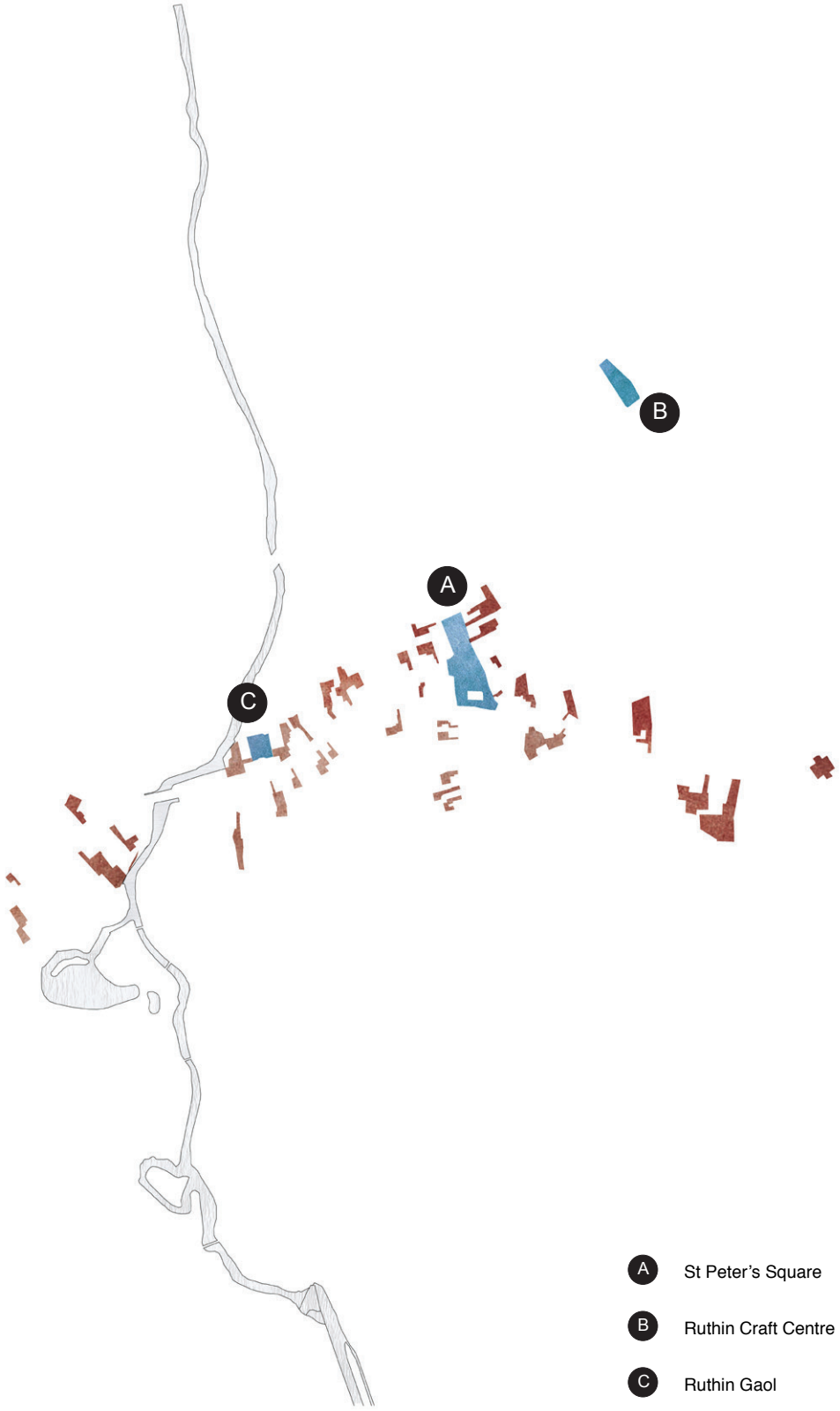


Fig 8.37. Ways- squares and yards: The historic core of Ruthin has a number of yards behind strong street edges, a reflection of Conzen's burgage cycle. Accessed by alleys and small scale lanes through and between buildings, these yards would have been places of trade, industry and production. Recent development patterns have been to introduce mews houses at the rear of yards, converting them to a purely residential use. The three major public spaces in the town are identified: St Peter's Square, the historic heart of the town; the Gaol, the current home of the market; and the Craft Centre, a space with a cafe that is well used by the community and tourists.

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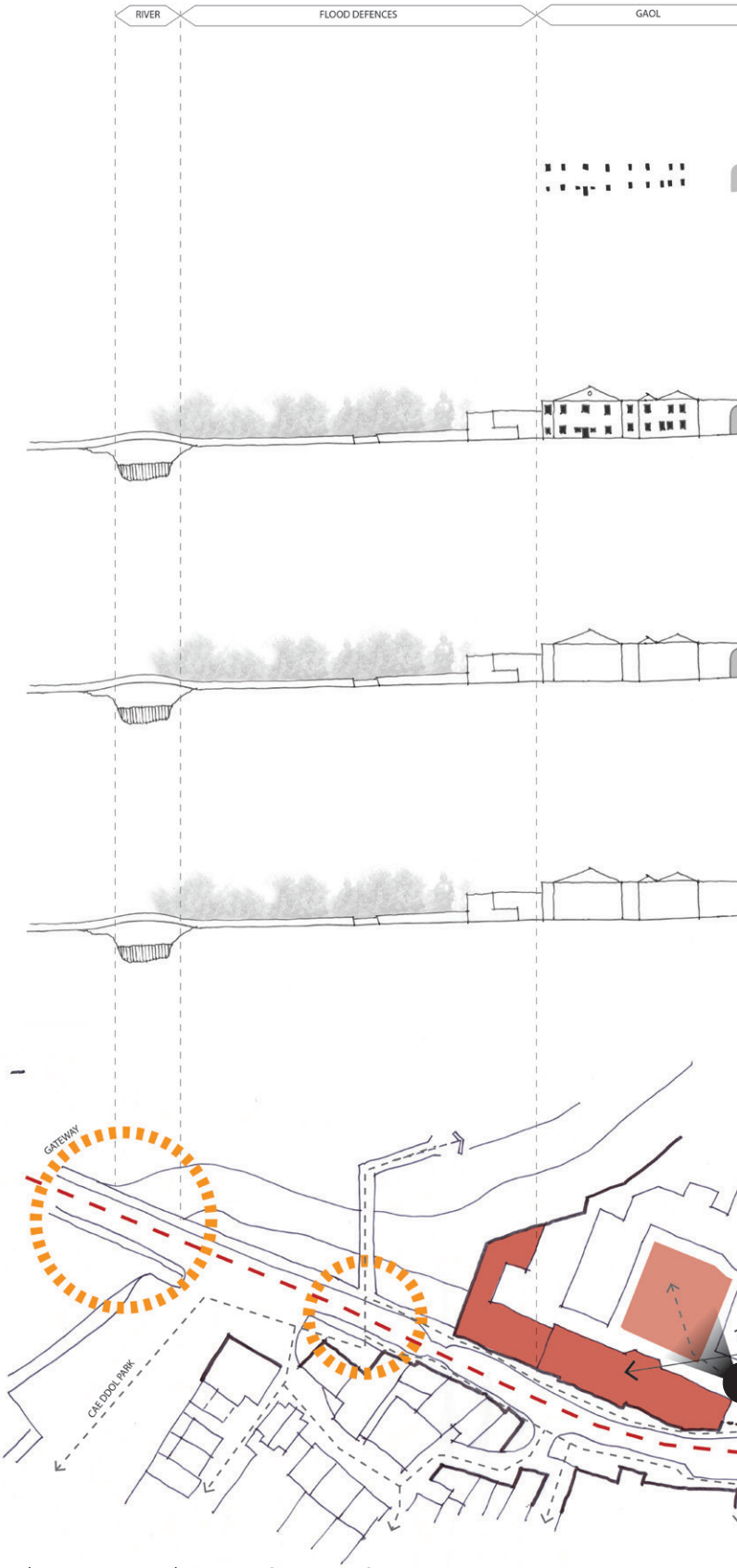
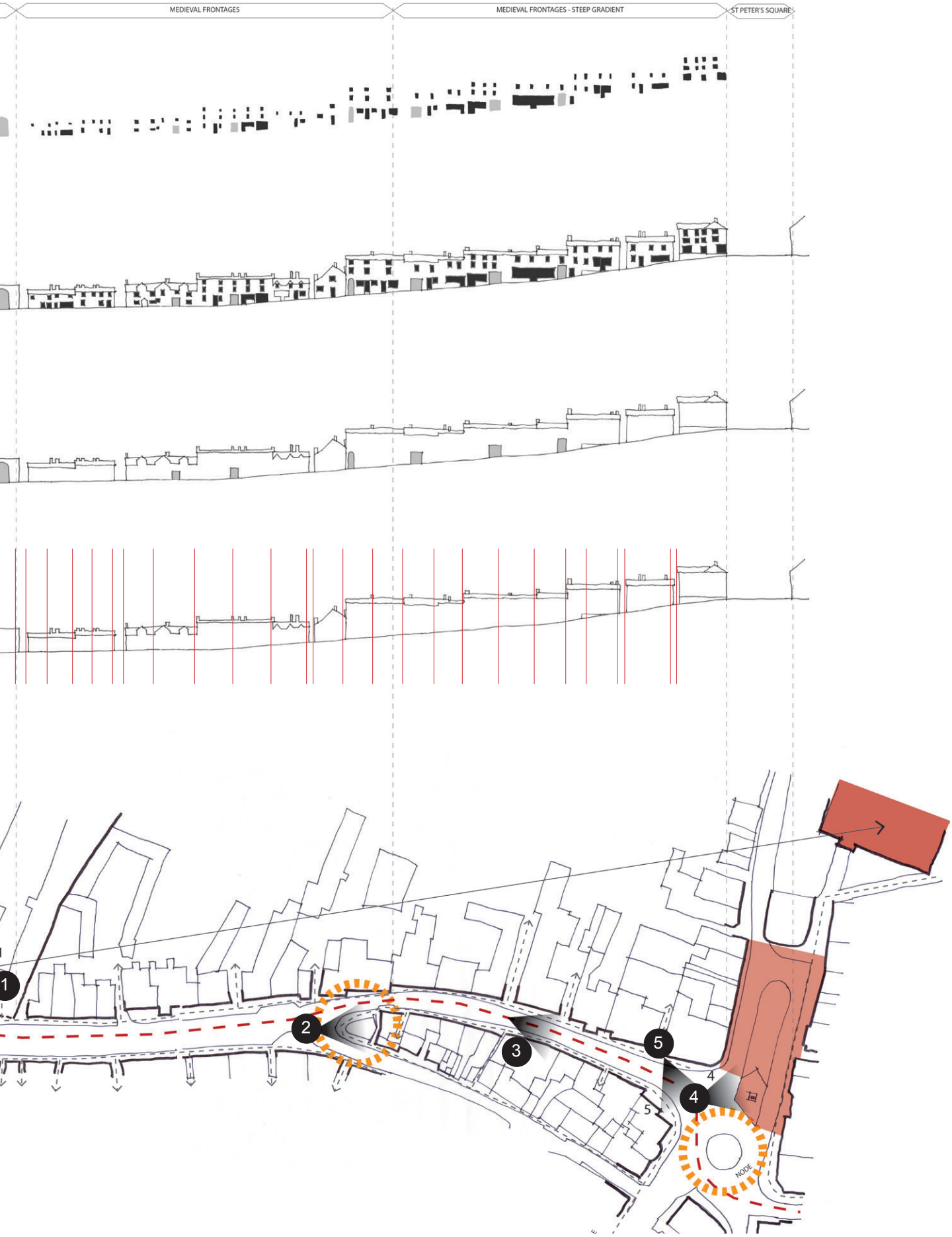


Fig 8.38. Scale and form- Clwyd Street. The drawing illustrates the connection between St Peter's Square and the Gaol. The burgage pattern is evident with a strong rhythm to the street. Frequent alleys and gateways lead to yards behind the street. Upper Clwyd Street falls rapidly from St Peter's Square, resulting in an irregular and stepping roofline of two to three storey buildings. The Gaol, with its high perimeter wall, dominate the gateway to the historic town from the west. Both the Gaol and St Peter's Church have towers, providing strong markers on the skyline.


MEDIEVAL FRONTAGES
MEDIEVAL FRONTAGES - STEEP GRADIENT
ST PETER'S SQUARE
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NODE

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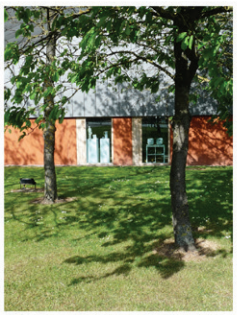

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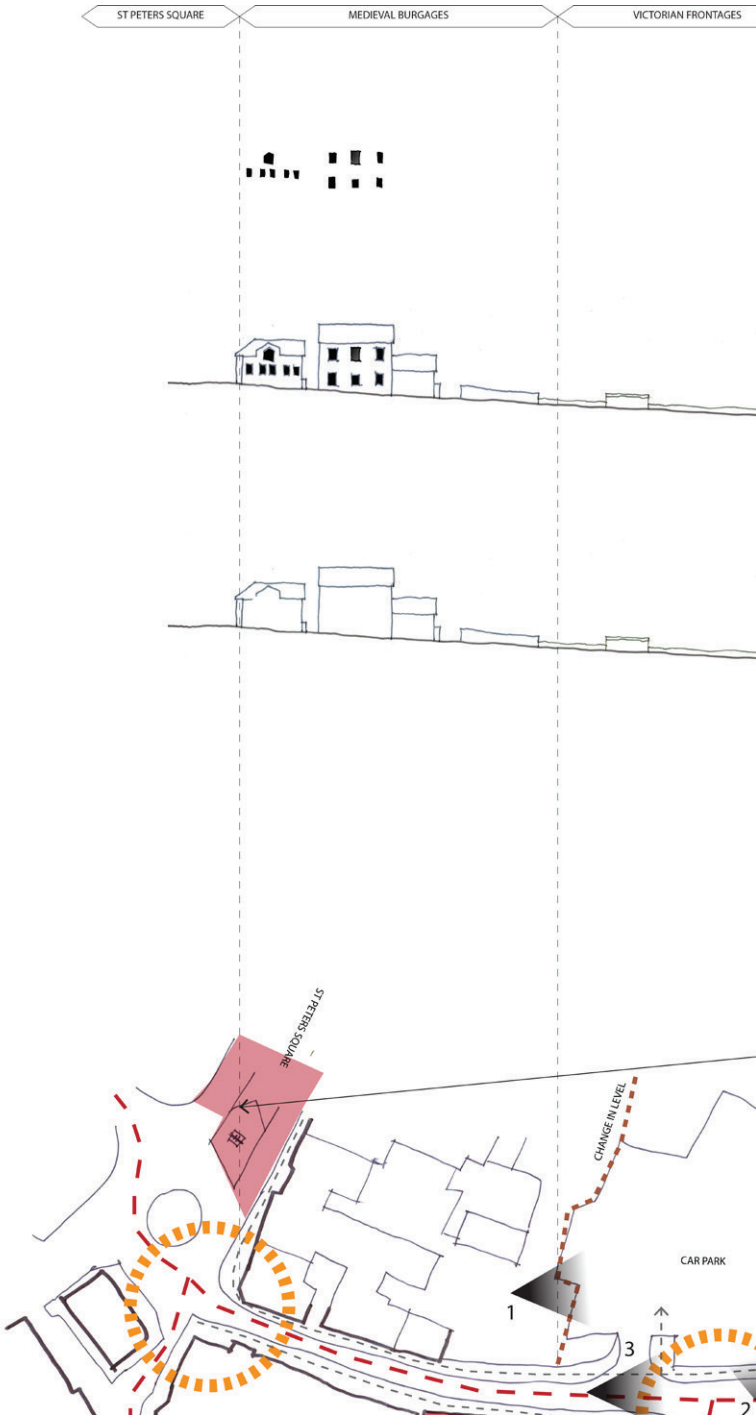

Fig 8.39. Scale and form- Market Street. The Victorian Market Street is less well defined than Clwyd Street. Its norther edge is fragmented, with a car park in the centre of the street opposite the indoor market and council offices. There is no clear rhythm to the street and no continuity in frontage. Around the Breic roundabout, the fabric further deteriorates; the Craft Centre is an object in the centre of its plot surrounded by young trees. It does not reinforce the street or connect effectively with the historic town.

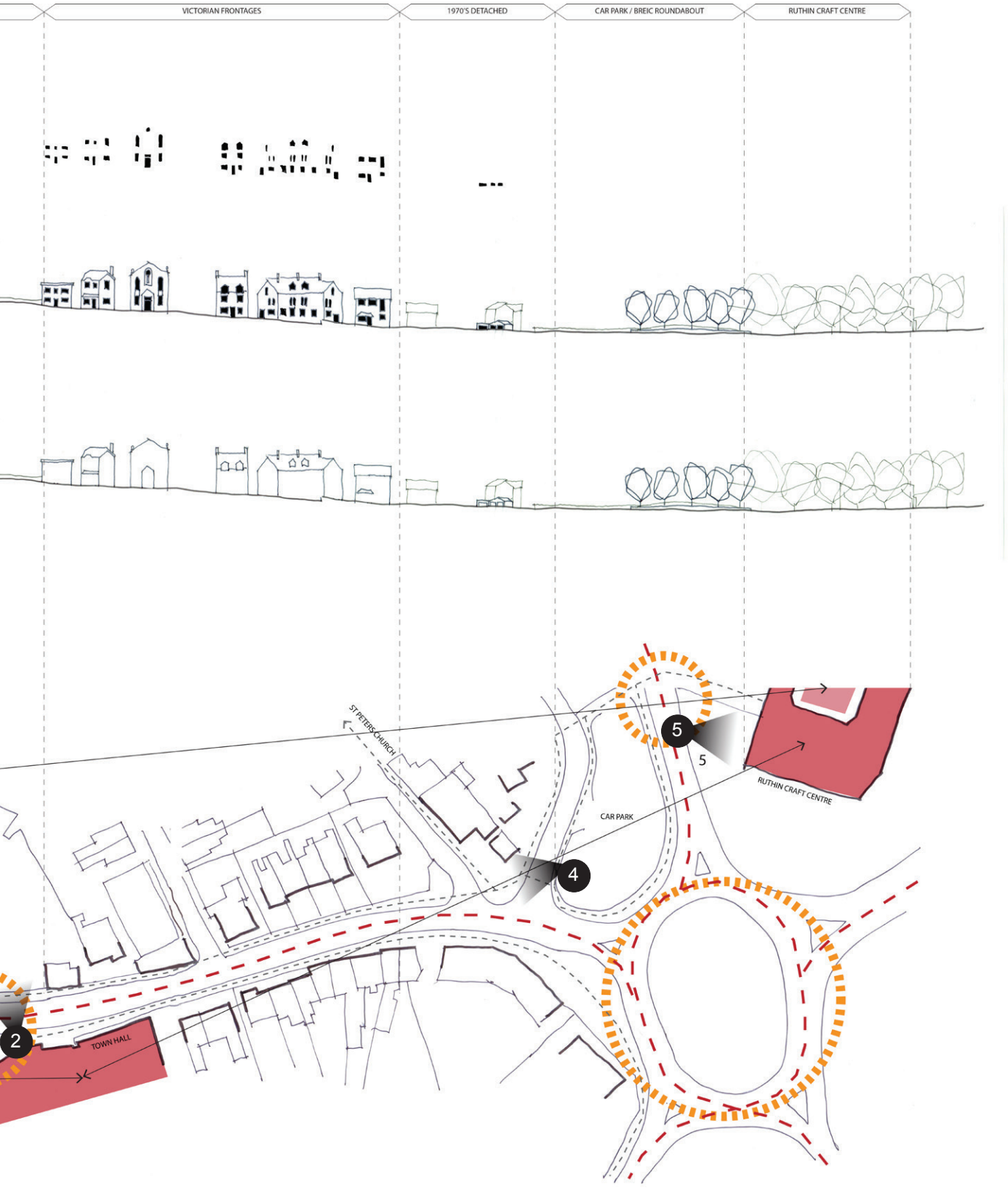
VICTORIAN FRONTAGES
1970'S DETACHED
CAR PARK / BREIC ROUNDABOUT
RUTHIN CRAFT CENTRE
ST PETERS CHURCH
CAR PARK
RUTHIN CRAFT CENTRE
TOWN HALL
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Fig 8.40. Materials- 'Ruthin Red': Red and terracotta tones are found in brickwork, sandstone and the concrete of Ruthin Craft Centre.

Fig 8.41. Materials- Sandstone and limestone: Carboniferous limestone and red sandstone are used in the Victorian civic buildings, St Peter's Church and a number of everyday stone buildings in the town. Red sandstone is often used as an accent, for example around openings.

Fig 8.42. Materials- Half timbered buildings: The town has many examples of timber framed buildings in the black and white style typical of this part of Wales.

Fig 8.43. Materials- Render, stucco and pebbledash: A range of colours of render are visible in the town, often applied to disguise a medieval facade.

Fig 8.44. Examples of the form and materials of twentieth century development in Ruthin.

Fig 8.45. Interpretive mapping of Ruthin: The map interprets elements of the previous layered readings and adds a layer of memory and storytelling. The historic core and the key routes around the historic core are highlighted. The town boundary is traced and the memory of the railway recorded. Moel Famau, supposedly King Arthur's stone, and the story of the printing of the first copy of the Welsh National Anthem (both described on plaques in the town) are included.

Fig 8.46. Interrogating the outcomes of the mapping process

Fig 8.47. Identification of weaknesses and opportunities in the town fabric

Fig 8.48. Settlement proposals: The drawing illustrates locations for new buildings to consolidate and reinforce the historic fabric and strengthen its edges; new connections that link the suburban housing estates, green spaces and the town core; renovated public spaces and identification of gateway sites; and new belts of vegetation to strengthen edges. The preferred riverside site for a design project is marked (1).

Fig 8.49. 1:2500 settlement model, illustrating the settlement proposals- locations of new buildings, edges in need of reinforcement and potential links between the historic core and the suburban periphery. The preferred riverside site for a design project is marked (1).

8.2.4 Peer review (15.07.15; present: Wayne Forster, Simon Unwin)

- Mapping & site choice:

- The mapping process and identification of sites was presented. It was suggested to tackle one site that uses Snozzi's principles or extends them further.
- The riverside site (marked (1) on figs. 8.48 & 8.49) seems to offer a good edge to deal with that analysis suggests is part of the historic core. It could be analysed as an interface between new and old town. That could present an opportunity to address a type of site not tackled in Ludlow.
- The riverside site offers the opportunity to create synergy between the housing estate and the town.

- Brief and programme:

- The brief should have a public function, perhaps a community building (e.g.: a primary school, small arts or community venue).

- Outcome and next steps:

- The riverside interface site is suitable for a design study. Develop a clear brief and programme and start testing design ideas thorugh the operational framework.

8.2.5 Reflection on the mapping process

The depth of the fieldwork process employed in Ruthin is significantly improved compared to that in Ludlow due to the longer-term engagement with the place. The Ludlow design study highlighted the need for this longer term engagement; locating the design study in Ruthin intentionally targeted a place in which the author had carried out the development of a community led town plan. This extended engagement and knowledge of the place aimed to embed the design proposal in a more measured way based on a deeper knowledge and experience of people and place. As Ingold describes:

> *"knowledge of the world is gained by moving about in it, exploring it, attending to it, ever alert to the signs by which it is revealed. Learning to see, then, is a matter not of acquiring schemata for mentally constructing the environment but of acquiring the skills for direct perceptual engagement with its constituents, human and non-human, animate and inanimate"*[5]

Through the numerous visits, meetings, consultations and exhibitions undertaken for the '*Market Town of the Future*' project, the town is understood in greater depth than Ludlow. As a consequence, the mapping of Ruthin is more complete. It addresses gaps identified in the previous study, such as the three dimensional form of the town, its material and construction, and a more thorough understanding of ways.

8.2.6 Identification of the site

The mapping process identified a number of sites in the town that could be explored through design proposals. These included sites with similarities to the Ludlow studies: Sites offering consolidation and densification of the historic fabric and edge sites that reinforce and define the boundaries of the town. In particular, numerous edge sites around the Craft Centre, dominated by large areas of car parking, were found that could have been taken forward.

The chosen site, a riverside site between Clwyd Street and Park Road, offers the opportunity to explore a type of site not examined thus far in the thesis. The site is an interface between the historic town and suburban development on its periphery, a type of site not considered in Ludow. The disconnection of these two 'towns', one historic and compact and the other low density and sprawling, was identified as a particular concern in Ruthin; the 'Market Town of the Future' project, which identified the connection between the town, the suburbs and the

5 Tim Ingold, *The perception of the environment: essays in livelihood, dwelling and skill* (London: Routledge, 2000) p.55.

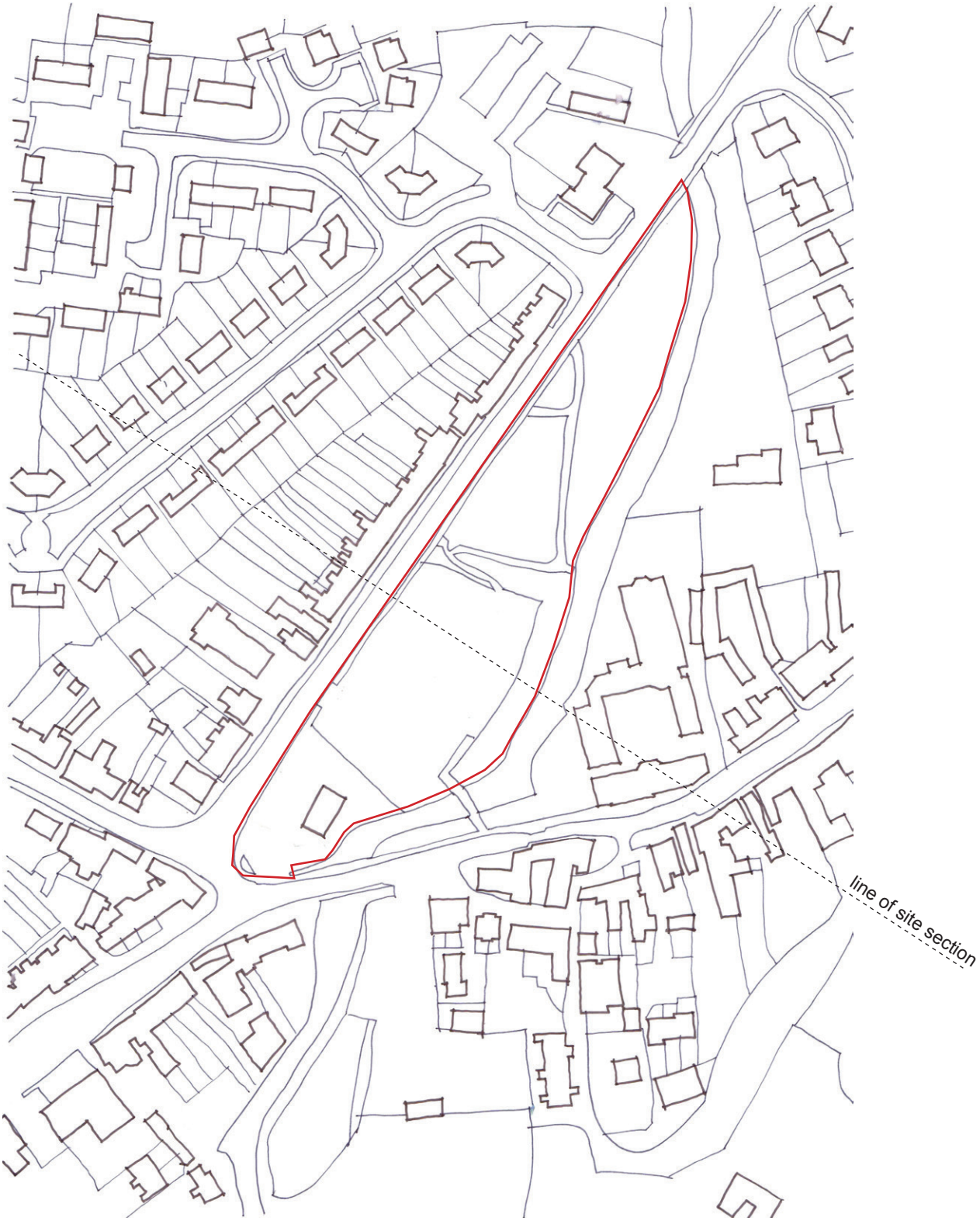


Fig 8.50. Site plan

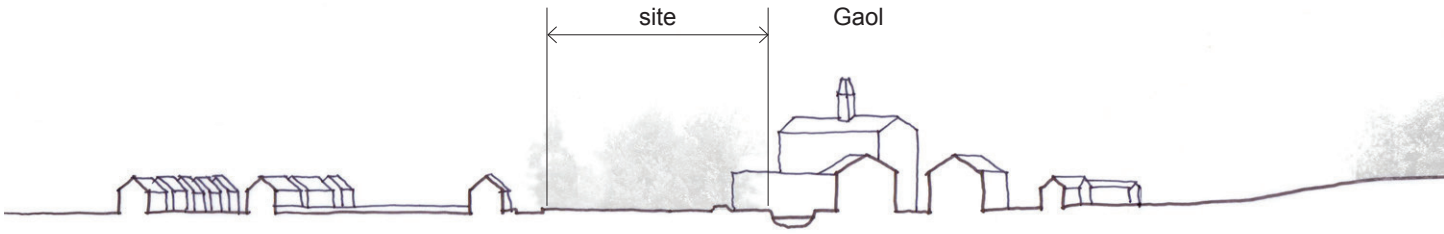


Fig 8.51. 1:1000 site section

hinterland beyond as a major problem.

8.3 Ruthin Community School

8.3.1 Site as found

The site is a long, thin and flat area alongside the River Clwyd. It is a gateway site on the approach from Denbigh and Bala and marks the transition into the historic town, contained by the river and the A494 Park Road. Currently, a number of uses are found on the site: a petrol station on the gateway corner at the south west; a car park to the north of this with recycling facilities and a small area of park dominated by 1.5m high flood defence bunds to the north of the site.

The site is one of the few places in the town where the river is visible. However, the bunds limit its visibility, reduce accessibility and make the space unwelcoming. Dog walkers but few others currently use this area. Across the river from the site is the nineteenth century Gaol, built in the Pentonville style and with a high wall (approximately 5m) around its perimeter.

Facing the site to the northwest is a terrace of houses with a strongly defined edge. Occasional alleys and archways allow access between the houses to gardens beyond. To the south of this edge, the terrace fragments into individual buildings including a Victorian hotel, chapel and short terrace. Behind the terraces to the north west is a large area of predominantly semi detached housing built in the 1960s and 1970s. These estates have few routes back toward the historic town.

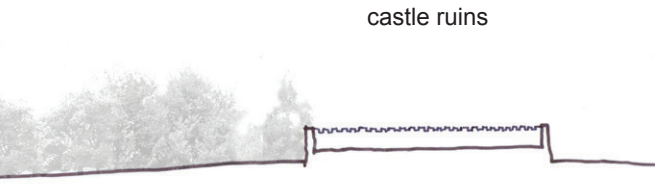


Fig 8.52. Site photographs

Fig 8.53. Site photographs

8.3.2 Site Analysis

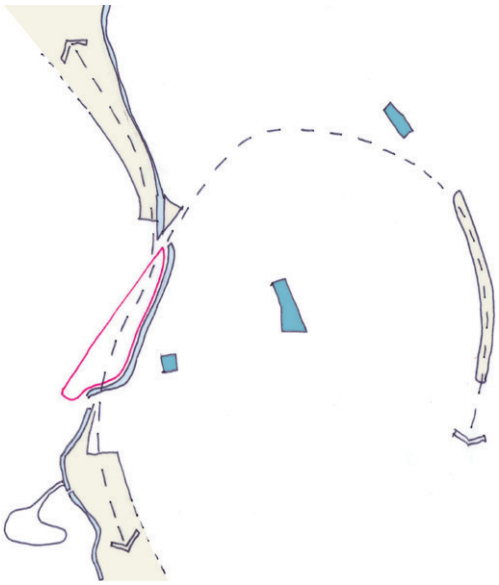


Fig 8.54. Connections: The site has potential to connect existing green spaces.

Fig 8.56. Volumetric grain: To the south and east, the medieval fabric is dense and tight knit with a defined street edge; to the north west a defined terrace gives way to individual buildings with a low density.

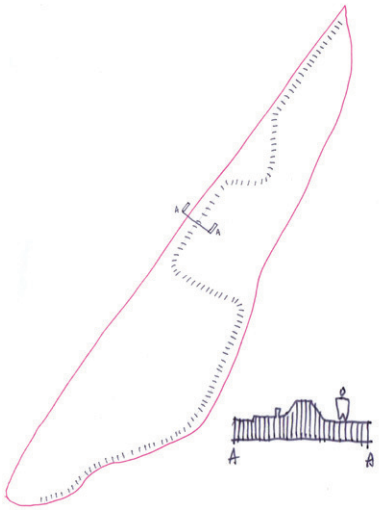


Fig 8.55. Ground notations: Flood defences in the form of 1.5m high bunds snake across the site, creating a boundary to movement across the site.

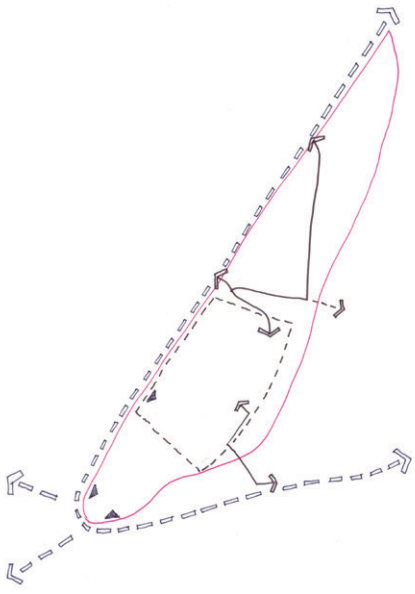


Fig 8.57. Connections: Major routes to the town arrive at the south west of the site. Pedestrian connections across the site are poor; an existing bridge leaves the pedestrian in the car park with no safe route across.

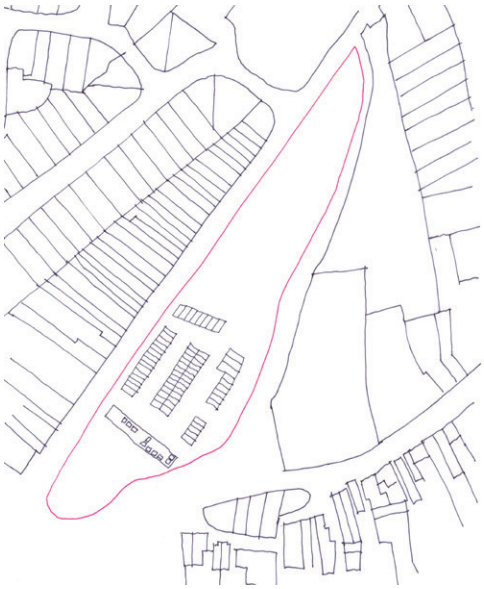


Fig 8.58. Ground notations: Existing car park and recycling facilities.

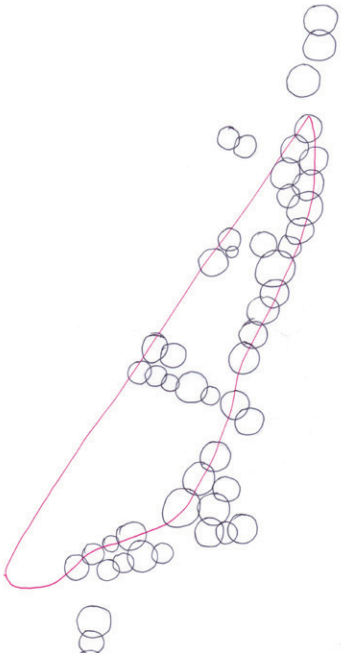


Fig 8.60. Vegetation: Trees line the river edge. Young trees sit around bunds to the north of the site.

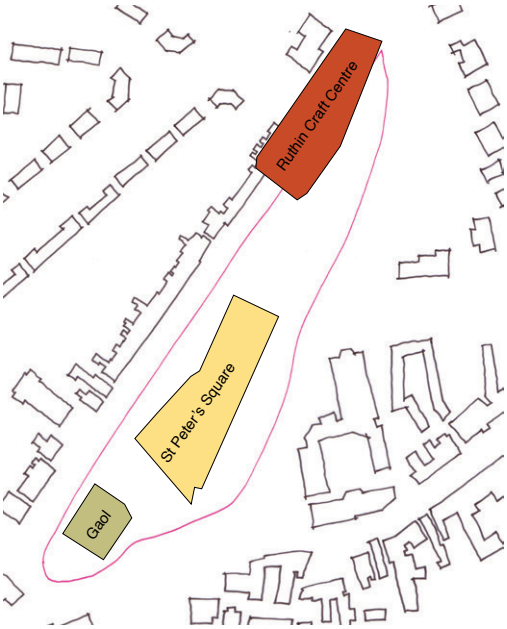


Fig 8.59. Public spaces comparison.

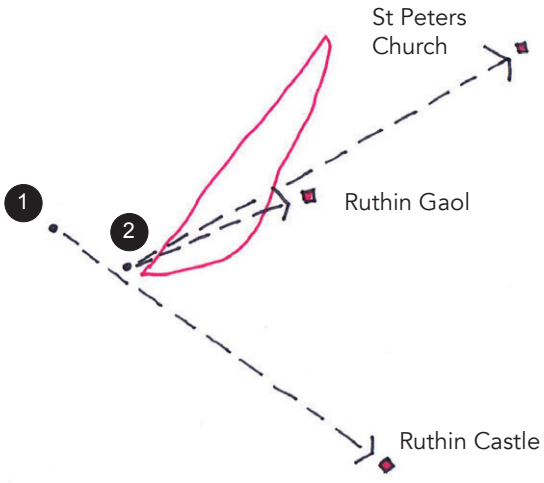


Fig 8.61. Key views across site.

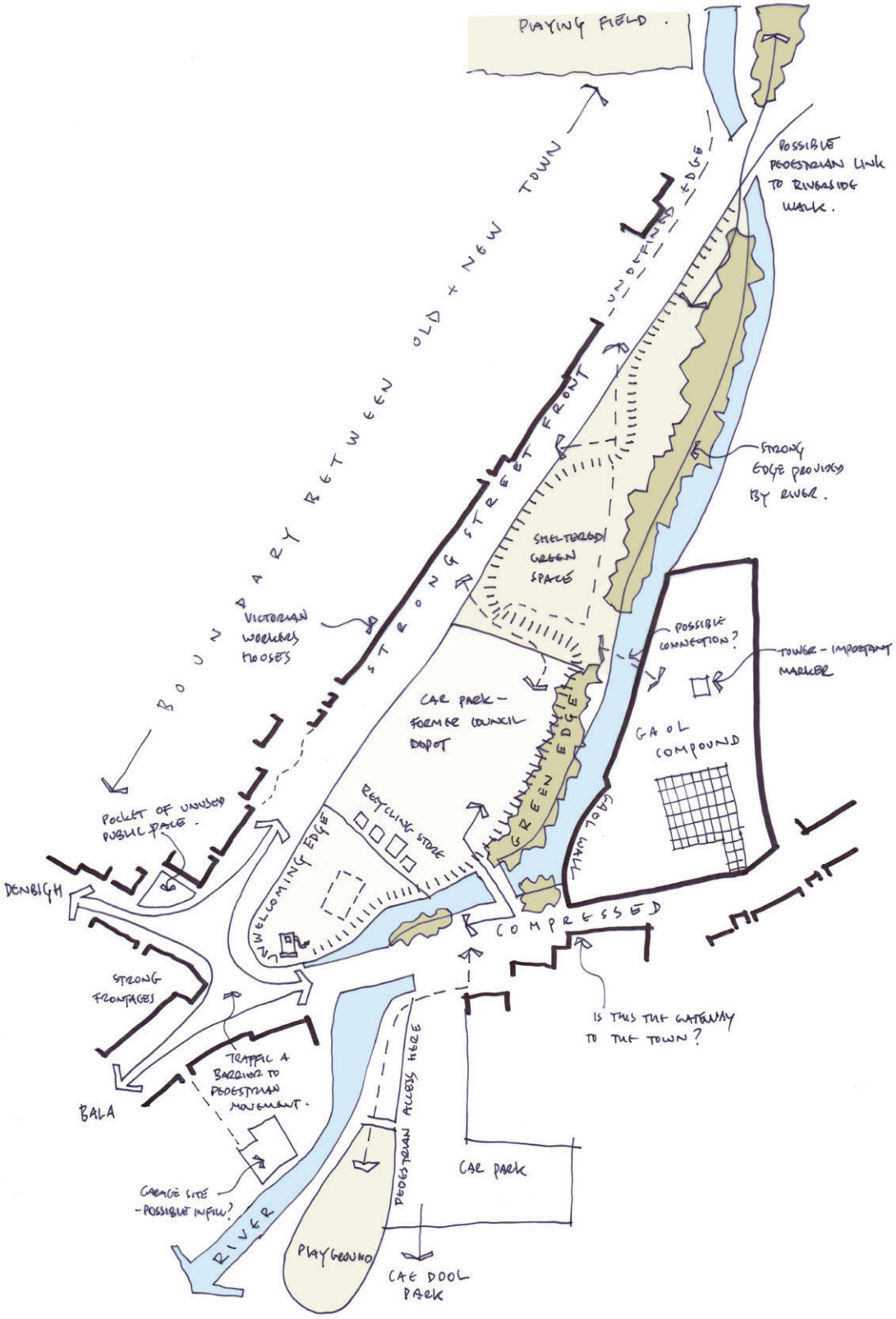
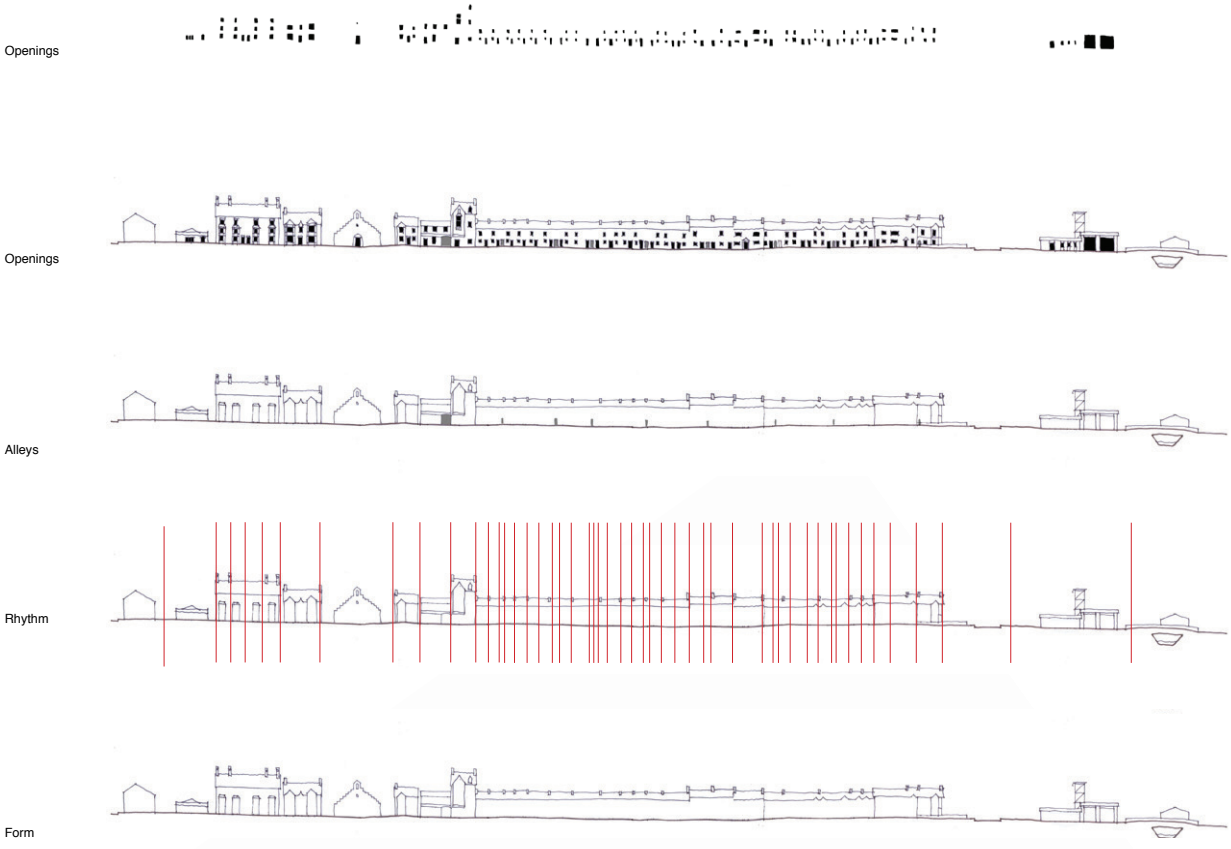


Fig 8.62. Sketched site analysis of the site as found.



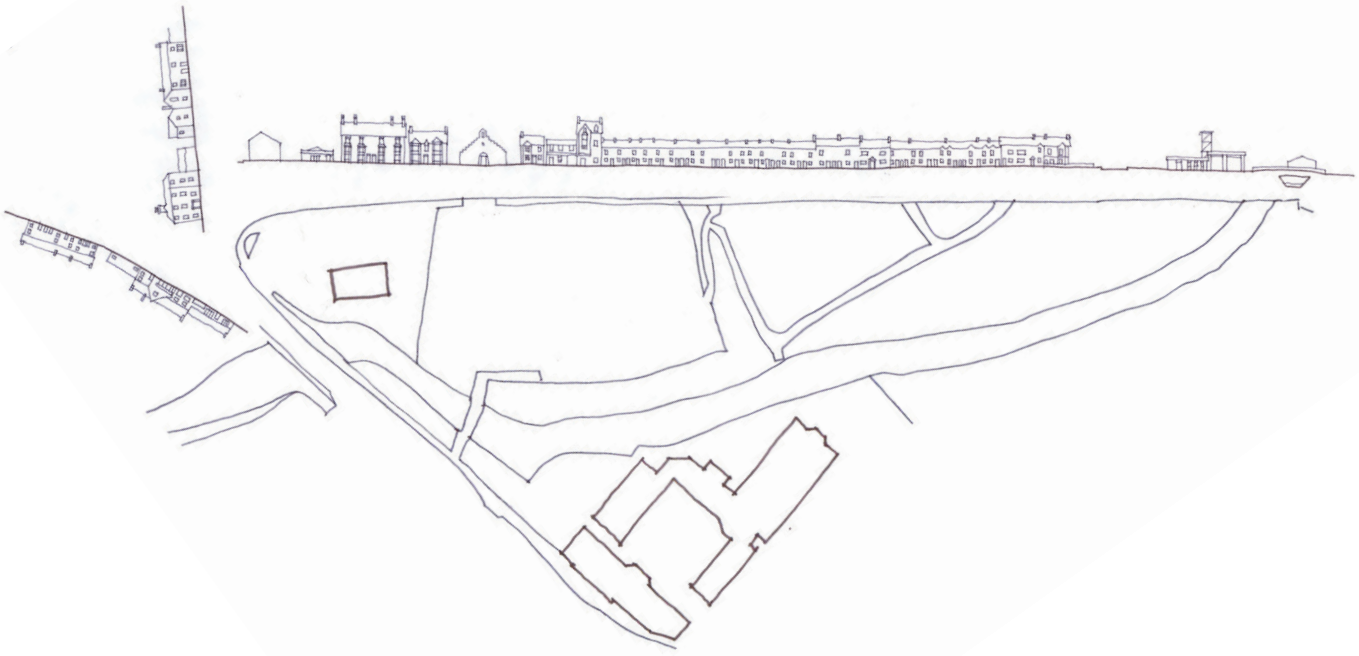


Fig 8.63. Scale and form of buildings facing onto the site analysed

Stone

Render/pebbledash

Red & brown brick

Buff brick

Fig 8.64. Materials found in the immediate context

Fig 8.65. Flood risk and defences

1- Rhos Street School
English medium primary school, 151 pupils

2- Ysgol Pen Barras
Non denominational Welsh medium primary school, 223 pupils

3- Ysgol Borthyn
English medium Church in Wales school, 142 pupils

4- Ysgol Brynhyfryd
Bilingual secondary school

5- Ruthin School
Independent school

Fig 8.66. Denbighshire County Council's proposals for education in Ruthin

8.3.3 Brief

The brief developed for the site is a community primary school. A review of eleven schools in and around Ruthin undertaken by Denbighshire County Council highlighted the challenges faced by schools in the area, including surplus places; condition and suitability of school sites; provision of mobile classrooms; and, school estate efficiency and sustainability. As a result, the council have put out to consultation the following proposal:

> *"£8.9million in capital funding has been allocated by Denbighshire County Council to invest in new school buildings and facilities for both Rhos Street School and Ysgol Pen Barras.*
>
> *The schools currently share a site within the town of Ruthin, it is proposed that both schools will move to the new development on Glasdir with some areas being shared (such as the grass pitch, multi-use games area, car park and dedicated pick up and drop off facilities). The brief for the school design will be based on current Building Bulletin 99 requirements which specify recommended areas for schools in terms of teaching and non-teaching areas. The new facilities would meet a 21st century schools standard."*[6]

The suggestion of relocating the two schools to Glasdir moves them out of the communities they serve (fig. 8.67). Schools act as a focal point for local people and local life.[7] The concept of community schools dates back to the 1920's, when schools were seen as the heart of a community, *"not only be the training ground for the art of living but the place in which life was lived."*[8] Relocating the schools to a peripheral site could have a negative impact on the existing community. The move will further increase reliance on the car as the new site is 10 minutes walk from the town centre and over 15 minutes from the current school site. Pedestrian and cycle connections to Glasdir are poor, with a number of major roads to cross. Moving the schools to this location will increase the number of cars making a 'school run' as this is the easiest, safest and quickest way to get to the site.

Countering this proposal, the design project brief suggests the creation of a community school on the interface of the old and new town (fig. 8.68). This will be achieved by:

6 Denbighshire County Council, 'Formal Consultation Document: Proposal to close Ysgol Rhewl as of the 31st of August 2017 with pupils transferring to Ysgol Pen Barras or Rhos Street School to coincide with the opening of the new school buildings.' February 2015
7 Herman Hertzberger, *Space and learning: Lessons in architecture 3* (008, Rotterdam: 010 Publishers, 2008)
8 Henry Morris, quoted in Donald Macleod, 'Schools should be the heart of communities,' *The Guardian* Tuesday 10th February 2009 <http://www.theguardian.com/education/2009/feb/10/academies-community-opening> [accessed 7 July 2015].

1- Site for new school on the edge of the old town

2- Create riverside links to Glasdir and housing areas

3- Cae Ddol in close proximity

4- Playing field in close proximity to site

5- Link to Clwyd Street and potenital to bridge into Goal

6- Rhos Sreet school maintained and extended

Fig 8.67. A counter proposal: Keeping schools in the community

- Maintaining Rhos Street School on its existing site with refurbishment and new buildings to create a functional educational environment.
- Creating a new community school on the interface of the historic and new town
- Connecting into and extend existing networks, especially pedestrian and cycle routes
- Giving the new school a public function, so that it supports the community socially and economically as well as functionally.
- Using a new school building as a way of addressing the divide between the old town and more recent suburban developments.
- Defining the gateway to the town from the west (from Bala and Denbigh).

8.3.4 Indicative schedule of accommodation

The school will accommodate 240 students in a direct replacement of Ysgol Pen Barras. This will be accompanied by additional community facilities; the combination of community and educational facilities on the site aims to make the school a community hub as well as a learning environment and bring the community to and through the site. The areas described below were tested on the site to ensure suitability of the brief (fig. 8.69).

As with the briefs developed in Ludlow, while the below outline gives some guidance to the type and scale of space needed for the design, the brief is seen as open to extension and adaptation as is necessary to fulfil the criteria identified in the operational framework.

'Building Bulletin 99' [9] suggests the following schedule of accommodation for the school:

240 person, 8 class primary school	1430m2 minimum
Teaching spaces:	
8 no. junior classrooms	480m2
1 no. food/scient/D&T	38m2
1 no. ICT suite	38m2
Halls:	
1 no. main hall	180m2
Learning resource areas:	

9 Department for Education and Skills, *Building Bulletin 99: Briefing Framework for Primary School Projects (*London: Department for Education and Skills, 2014) p.61.

Fig 8.68. Site study showing school area on proposed site

Library	29m2
2 no. group teaching rooms	24m2
Staff & administration:	
3 no. offices	30m2
1 no. staff room	35m2
1 no. reception & copiers	9m2
1 no. sick bay	3m2
1 no. group room	12m2
1 no. interview room	8m2
Storage:	
8 no. class stores	18m2
PE store	16m2
8 specialist stores	18m2
Cloakroom	24m2
6 no. misc stores	40m2
Other:	
1 no. kitchen	50m2
1 no. servery	8m2
WCs	50m2
Staff WCs	10m2
Circulation	223m2
Plant	31m2

This will be supplemented with facilities shared with the community including:

Sports hall & changing
ICT suites and training rooms
Learning resource centre
Community meeting rooms
Café and servery
Craft studios and workshop

Fig 8.69. Scale test: Ruthin Craft Centre

Sergison Bates
1,566m2

Fig 8.70. Scale test: Ranelagh School, Dublin

O'Donnell & Tuomey
1,150m2

8.3.5 Preliminary design studies

- Scale testing

Scale testing was carried out to gain an understanding of the size of the site. This used an example from Ruthin as well as other best practice examples. The selected precedent studies further suggested a number of approaches to the site, explored further in 8.7.2.

Fig 8.71. Scale test: The Terrace, Lincoln

Bauman Lyons
2,960m2

Fig 8.72. Scale test: Tibby's Triangle, Southwold

Ask Sakula

Fig 8.73. Courtyard option
Linear block alongside road; central courtyard. Potential for courtyard to be large and uninhabitable- scale is larger than other public spaces in the town. Connections through weak. Little separation between school and public uses. South west corner is difficult to resolve. Abrupt end at north of site.

Fig 8.74. Linear option
Based on a 10m-7m grid of blocks and lanes. Route through the site is complex. Small scale square- what could this be used for? Building could dissolve at the north of the site. Little response to river edge.

-Initial layout studies

Initially a number of approaches to the site were tested before a strategy was developed. These included a courtyard option; a linear option; and two options based on lanes and yards. The lane and yard approach was chosen for its relationship to the form and grain of the place. It offered the chance to extend the grain of the historic town across the interface site. A reinstated bridge links to the Gaol Square and a connection to the existing bridge to the south offered strong possibilities to connect across the site.

Fig 8.75. Lanes & enclosed yards
Linear block along road; 'backland' with blocks around yards, twisted to address desire lines and river edge. While classrooms could be separated from a public roadside block, courtyards between might make privacy difficult to achieve.

Fig 8.76. Lanes & yards
Linear block along road; 'backland' with blocks around yards, twisted to address desire lines and river edge, linked by lanes. Courtyards open to river edge. Possible to create private classrooms opening to the river and public facilities to the street. No public square yet defined.

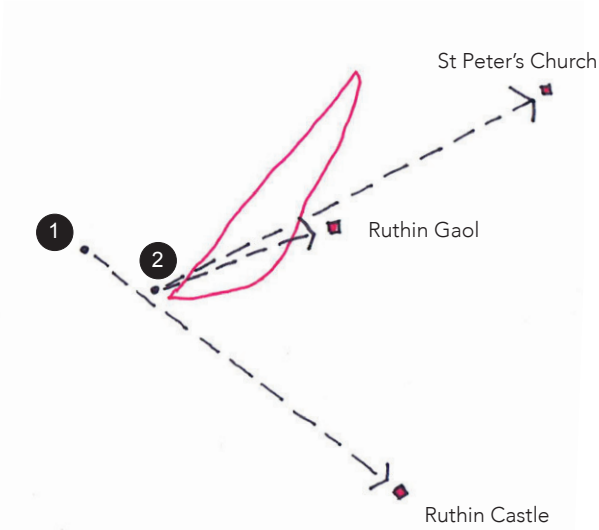


Fig 8.77. Views and vistas around the site

Fig 8.80. Viewing corridor across the site

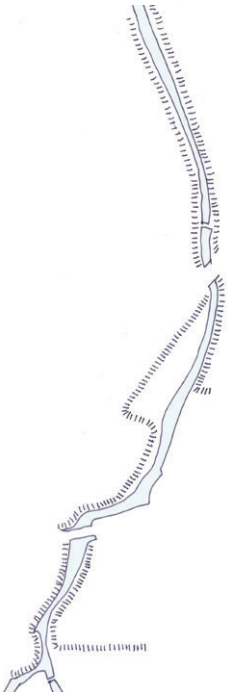


Fig 8.78. Existing bunds on the site

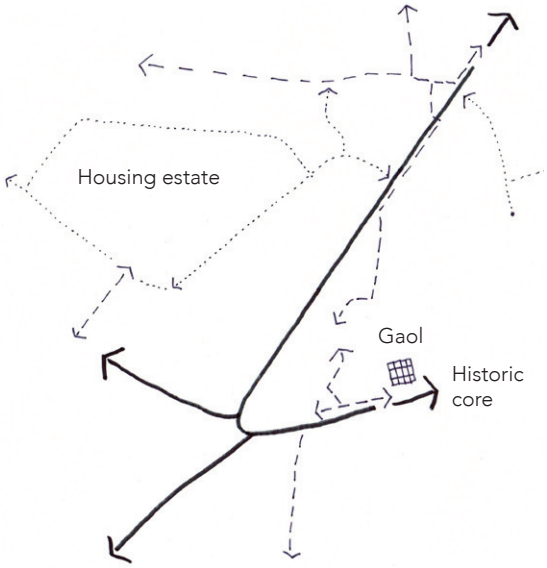


Fig 8.79. Connections around the site, with limited connectivity from the historic town to the peripheral estates

-Initial design principles

The lane and yard option is chosen to be developed as it has potential for a strong street edge with public and shared facilities and a more private river edge for classrooms and teaching spaces. The grain of the sketch suggests a response to the repetitive notation the terraces and the possibility for a more dense backland against the river that responds to routes through the site.

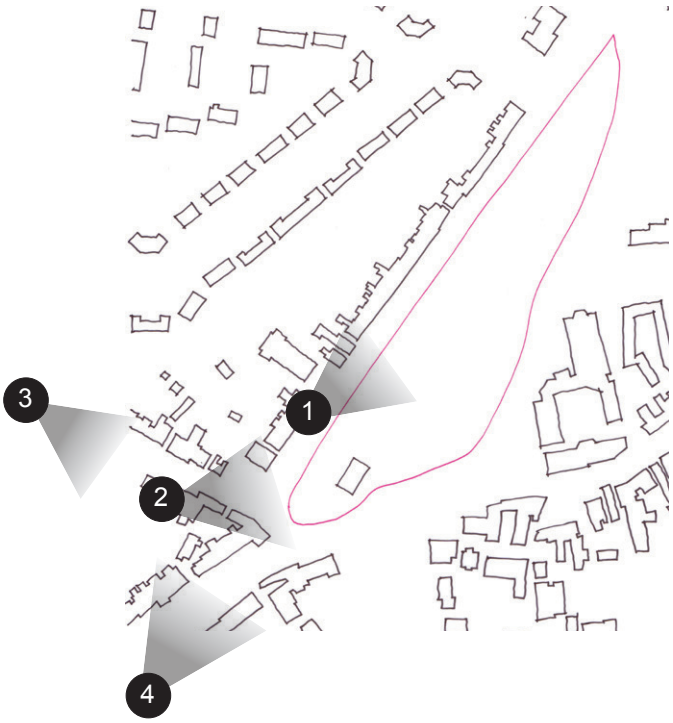
Three as found conditions will inform the development of the design:

- **View and vista:** A view revealed on arrival at the site to St Peter's Church spire and the Gaol tower is seen as an important element of the place and a view that should be preserved and framed. In response, the massing was developed to create a viewing corridor through the site.

- **Ground notations:** The existing ground notation of bunds and the risk of flooding on the site were translated into a new series of bunds on which the building sits, raised above street level. While buildings at the perimeter of the site are at street level, the public spaces ad buildings within are raised to bund level (1.5m).

- **Connections:** New connections between the historic core and the peripheral estates to the north west are to be created. A bridge link to the south of the site is to be maintained and improved; a second previously existing bridge link to the Gaol is to be reinstated. These two points will be taken as fixed and will be used to define the location of connections across the site.

The following section describes the evolution of the design proposal through sketches, drawings and models, alongside critical annotation of the design.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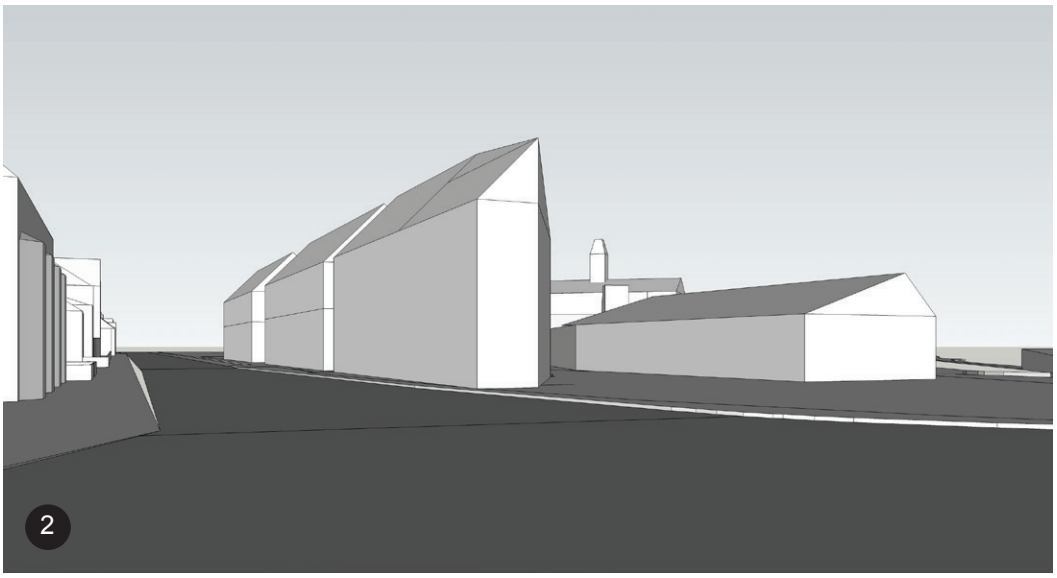
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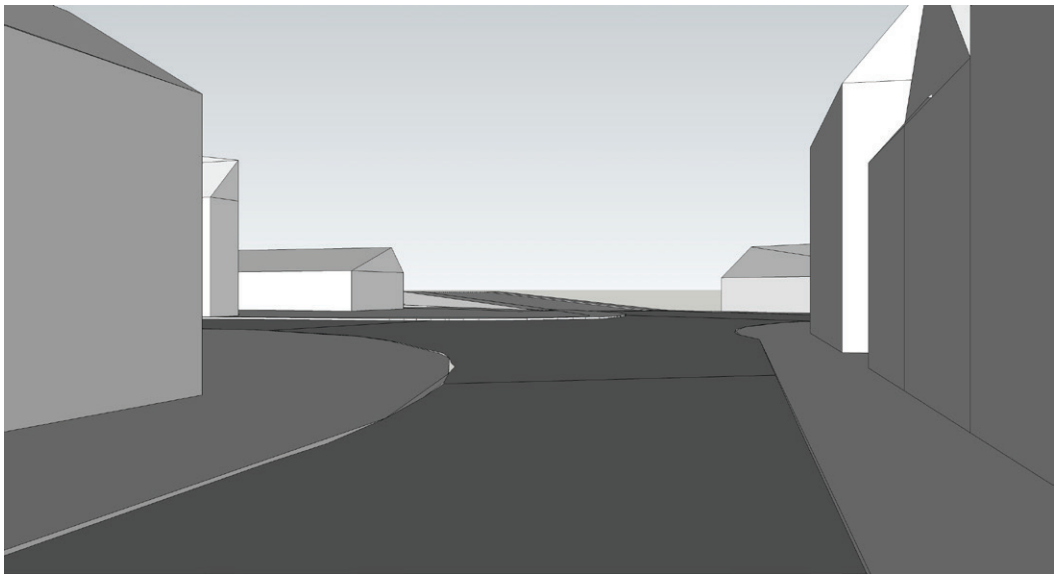
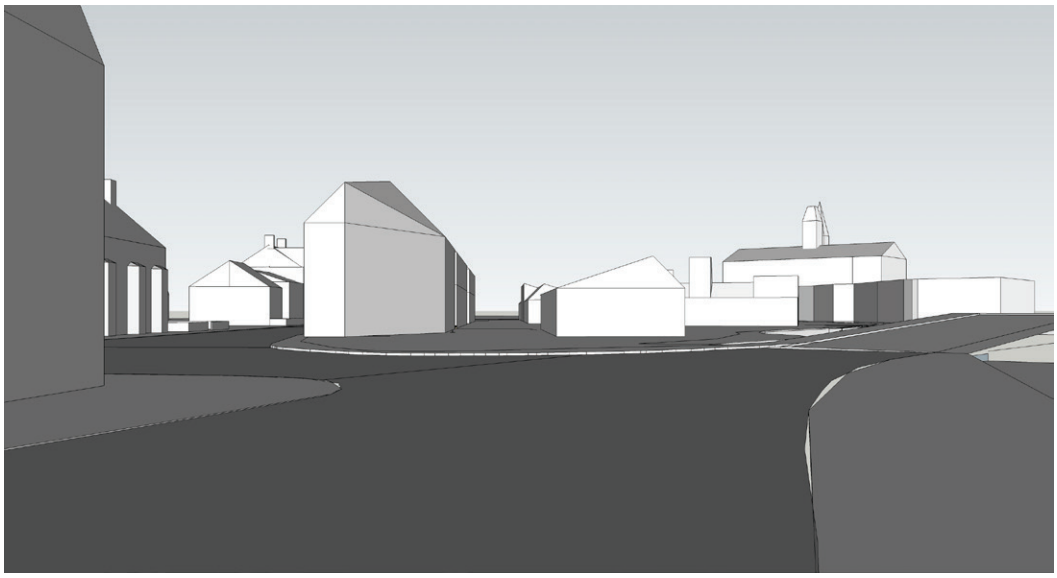
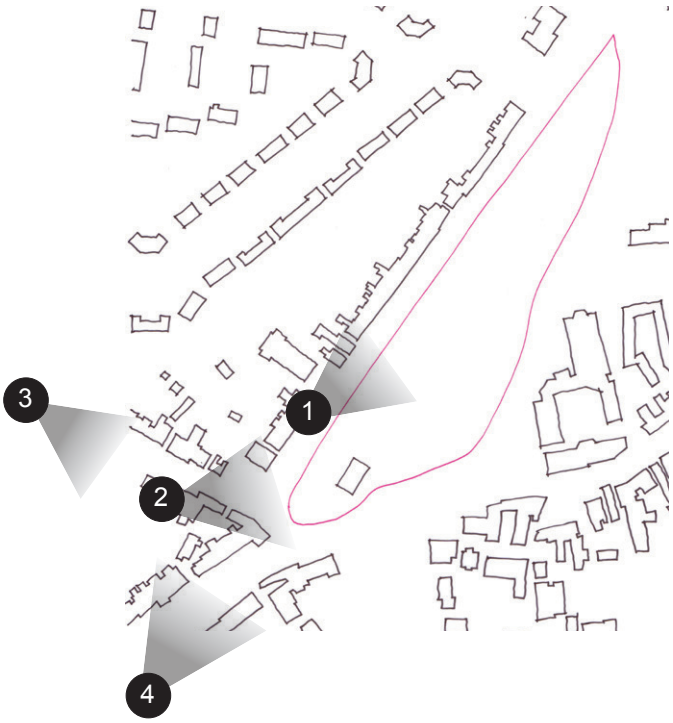
8.3.6 Design development

Stage 1 Summary:

- Two storey block lining the street to the west, creating a strong edge.
- Single storey school to the back land side of site & river edge, with single storey nursery to south corner.
- Street edge is held and defined, although massing may be too large in comparison to terraces.
- A viewing corridor is cut through the proposal to frame the church and Gaol towers. However it does not align correctly with the church steeple and the gaol tower and needs adjustment.
- Single storey nursery block has no street presence (images 2,3,4). This needs a more substantial building to give presence to the gateway.



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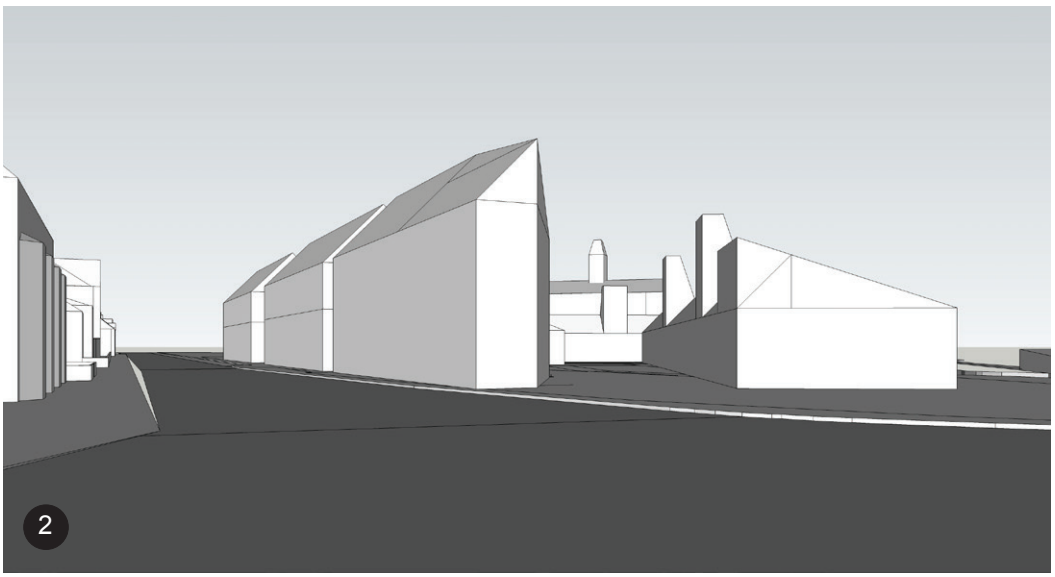
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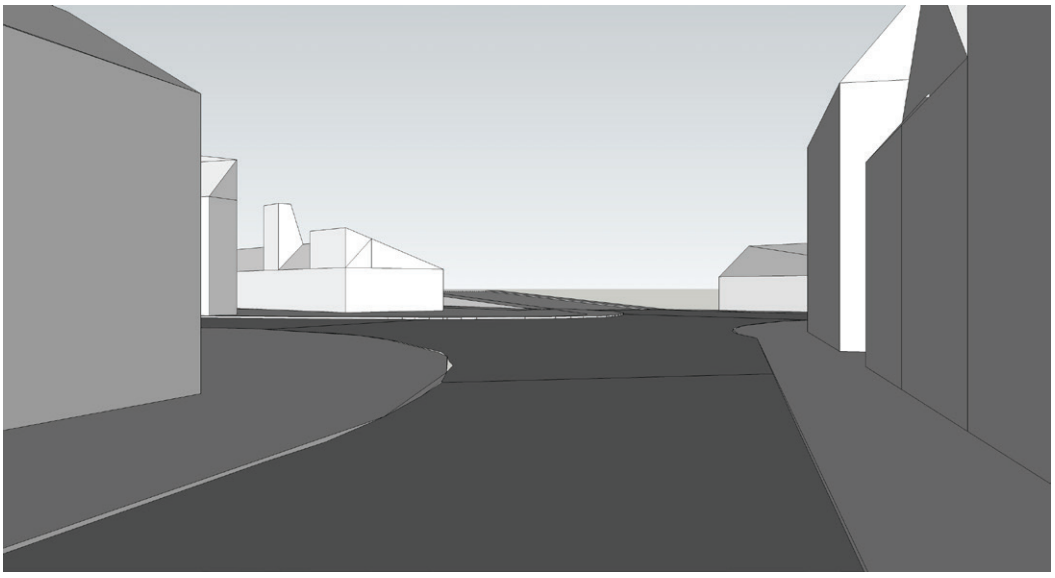
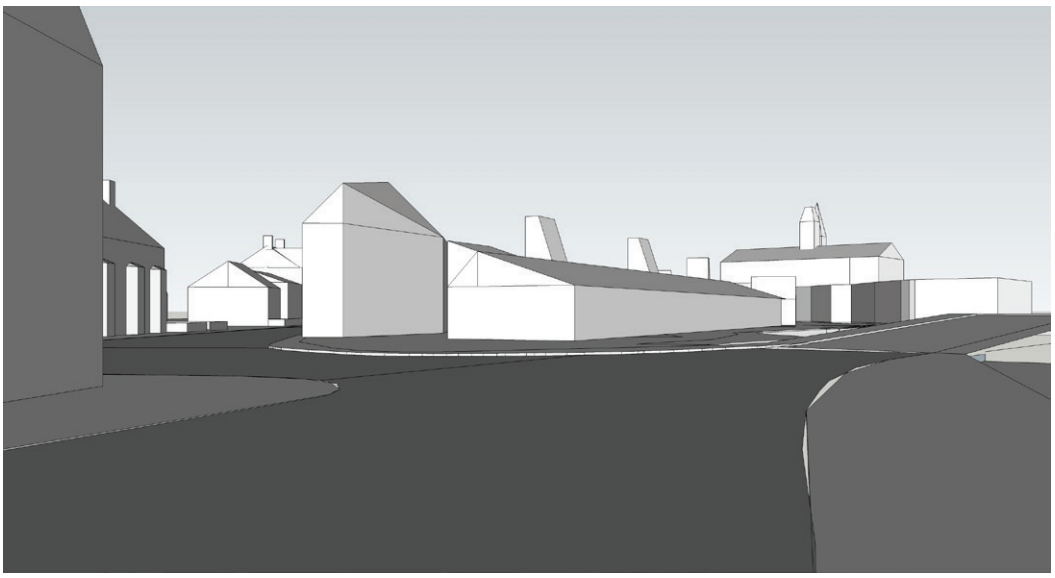
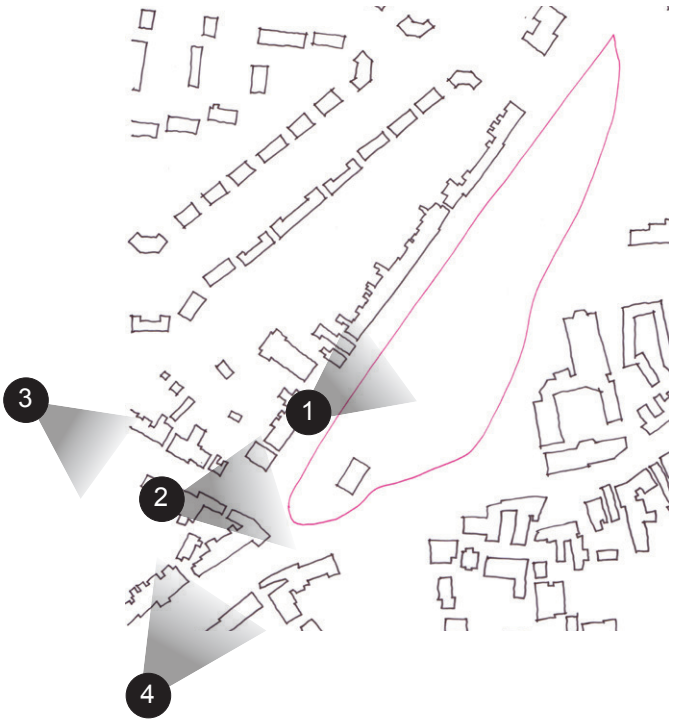
Stage 2 Summary:

- Principally as option 1, but with the viewing corridor realigned to frame the church steeple and gaol tower. This has been achieved by realigning the nursery block to the viewing corridor, and removing the crank in its plan.
- Two storey block lining the street to the west, creating a strong edge, although massing may be too large in comparison to terraces.
- Single storey school to the back land side of site & river edge, with single storey nursery to south corner.
- The viewing corridor cut through the proposal now aligns with the towers, although the nursery block as a single storey with chimneys doesn't provide a strong sense of enclosure or frame to the view.
- Single storey nursery block has no street presence (images 3 & 4). This needs a more substantial building to give presence to the gateway.



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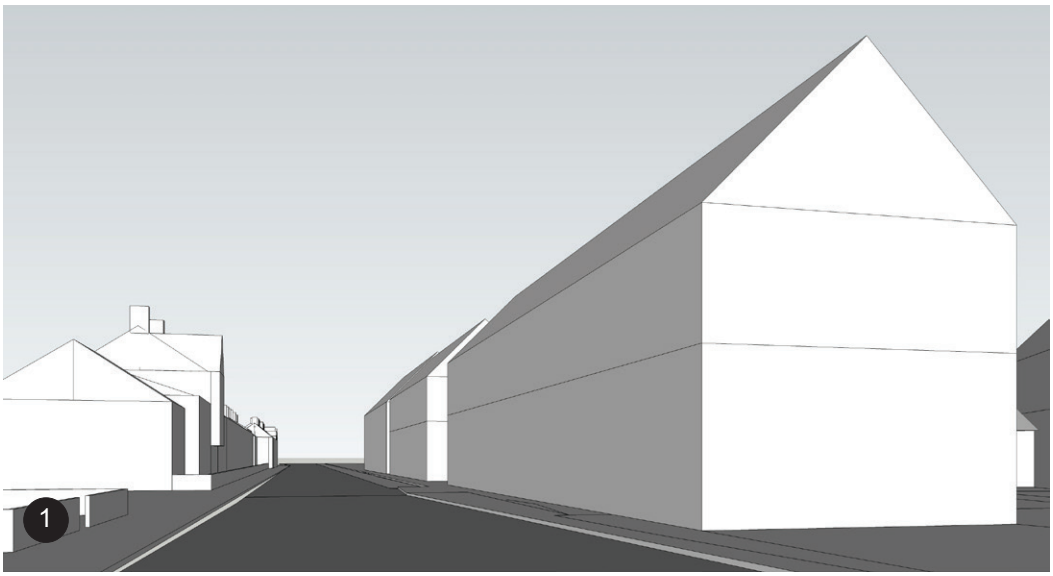
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Stage 3 summary:

- Principally as option 2, but with increased massing to the nursery block and the alignment of the south of this block to the street edge. The internal street between the school and the block lining the street has been reduced from 7.5m to 5m, a change in scale from a narrow street to a lane.
- Two storey block lining the street to the west, creating a strong edge. Street edge is held and defined, although massing may be too large in comparison to terraces.
- Single storey school to the back land side of site & river edge.
- Street edge is held and defined, although massing may be too large in comparison to terraces.
- The viewing corridor cut through the proposal aligns with the towers and frames the vista well through increased massing.
- Increased presence to the south corner.
- Little sense of a hierarchy of ways ad east west connections poorly articulated.

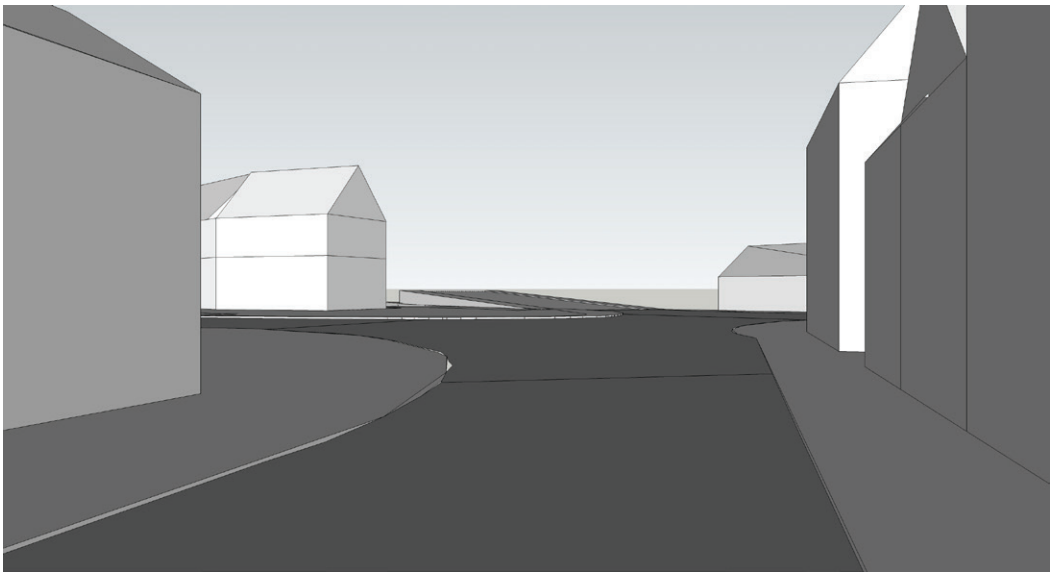


Fig 8.81. Stage 3 ground floor plan
1 - Cafe
2- community room
3 - studios
4 - gym/hall
5 - school entrance
6 - classroom
7 - school admin
8- kitchen
9 - library
10- group room
11- small hall
12 - plant
13 - covered deck
14 - bridge link
15 - WC's

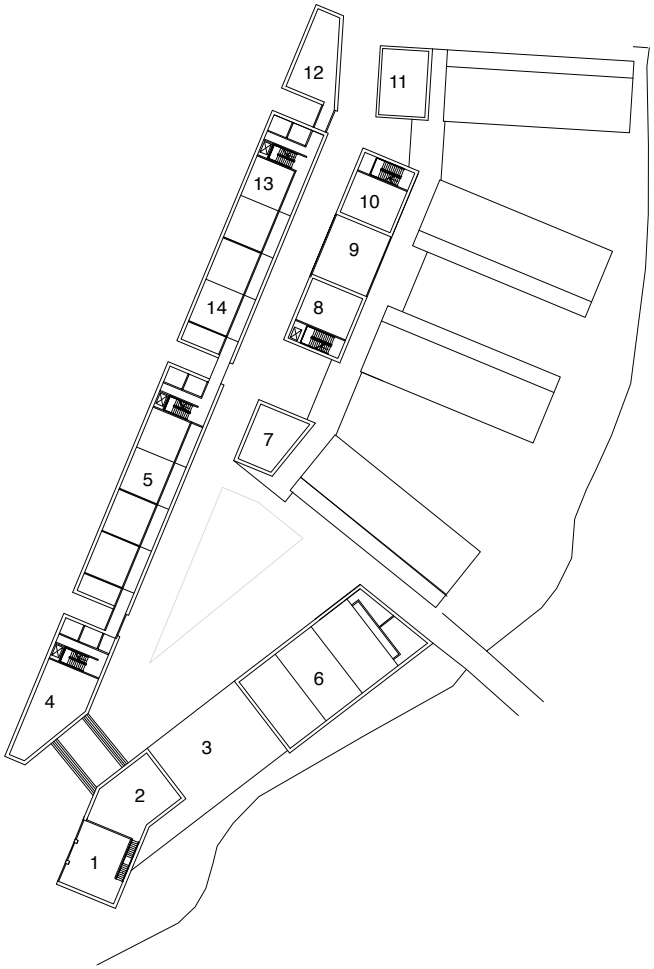


Fig 8.82. Stage 3 first floor plan
1 - void
2- cafe mezzanine
3 - roof terrace
4 - community rooms
5 - lettable office space
6 - void over hall
7 - staff room (access tbc)
8- covered play space
9 - play terrace
10- group room
11- group room (access tbc)
12 - office
13 - IT suite
14 - art & design studio

Fig 8.83. Lane from the street to the courtyard

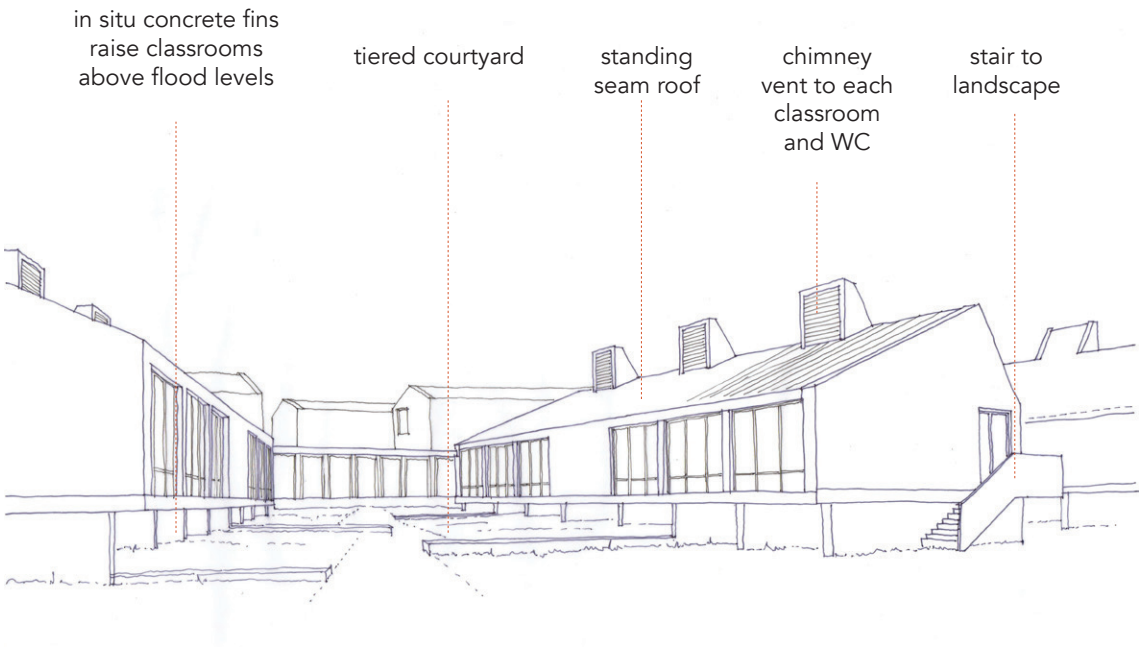


Fig 8.84. Classrooms viewed from the river

Fig 8.85. Street view from the south west

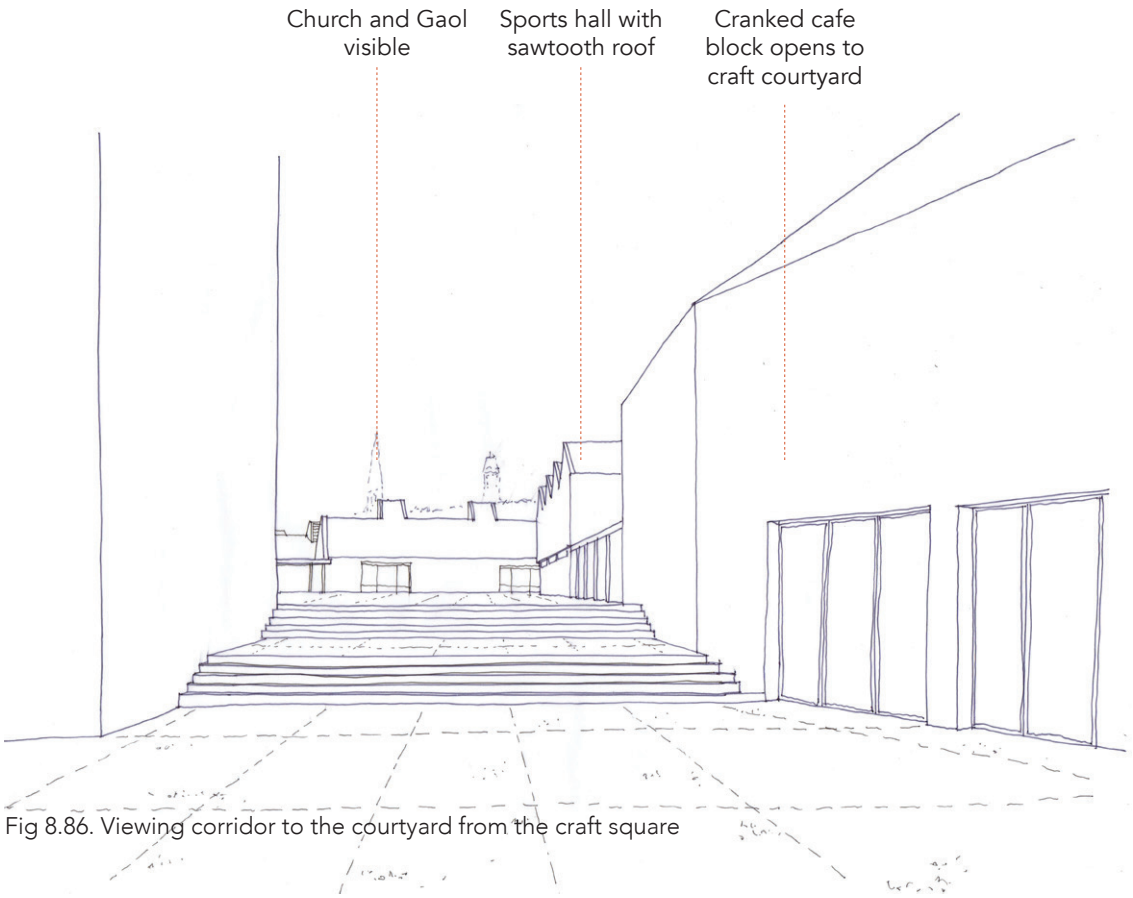


Fig 8.86. Viewing corridor to the courtyard from the craft square

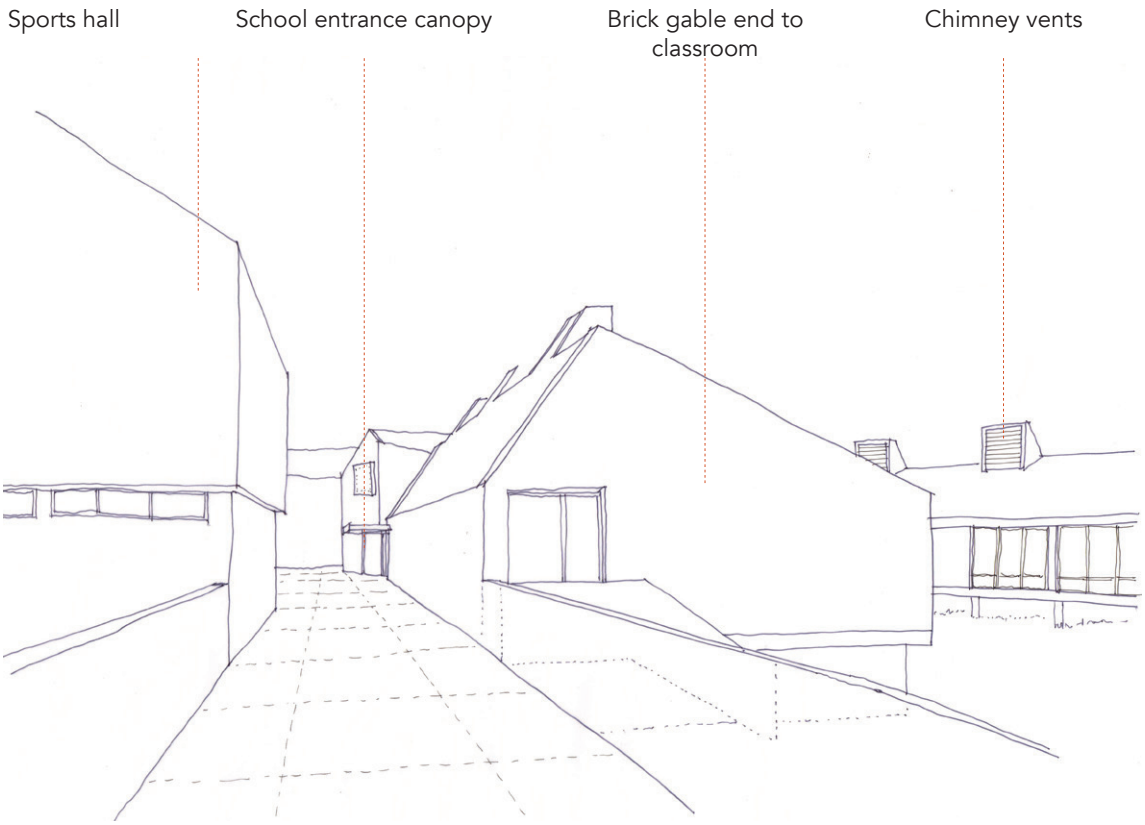


Fig 8.87. View from bridge link into the central courtyard

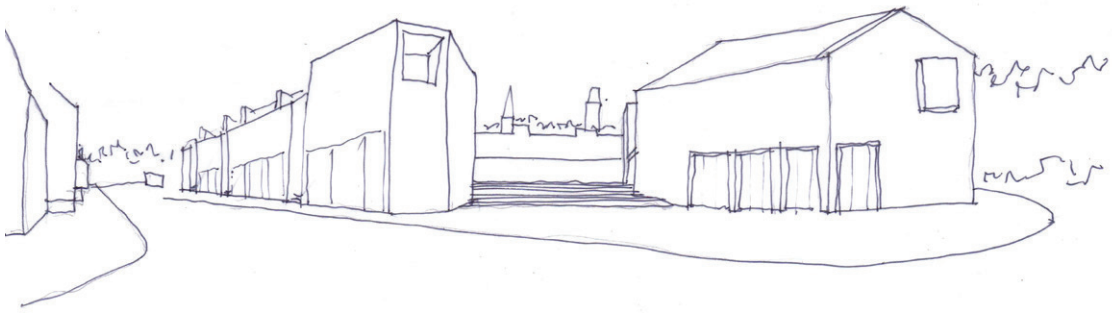
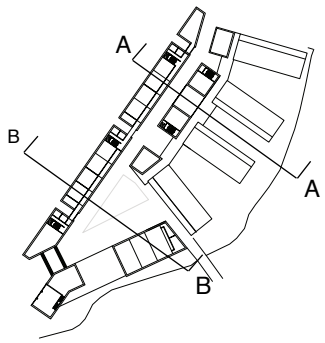


Fig 8.88. Sketch view from south west



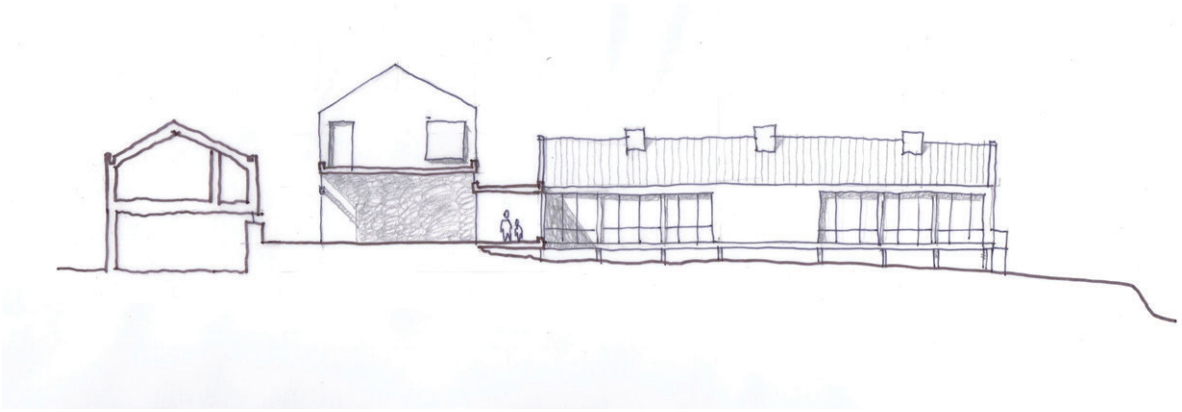


Fig 8.89. Section AA through school hall and library

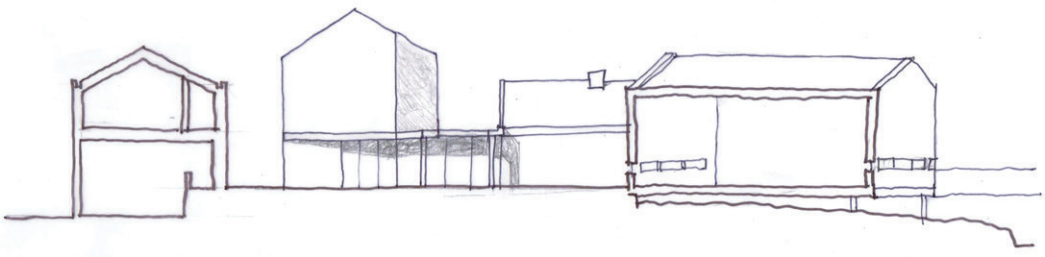


Fig 8.90. Section BB thorugh sports hall, courtyard and cradt studios

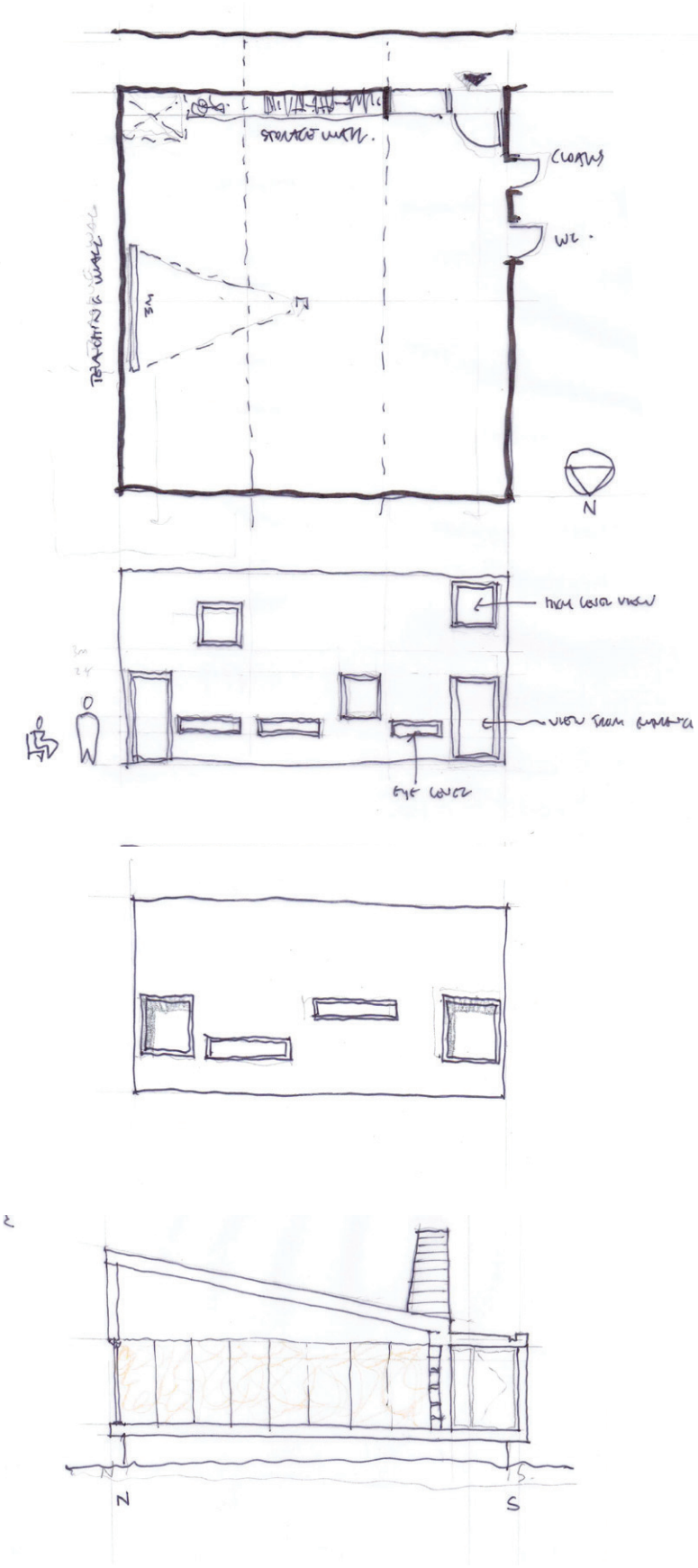


Fig 8.91. Early classroom design based on a square classroom, paired with WCs and cloakrooms between the classrooms.

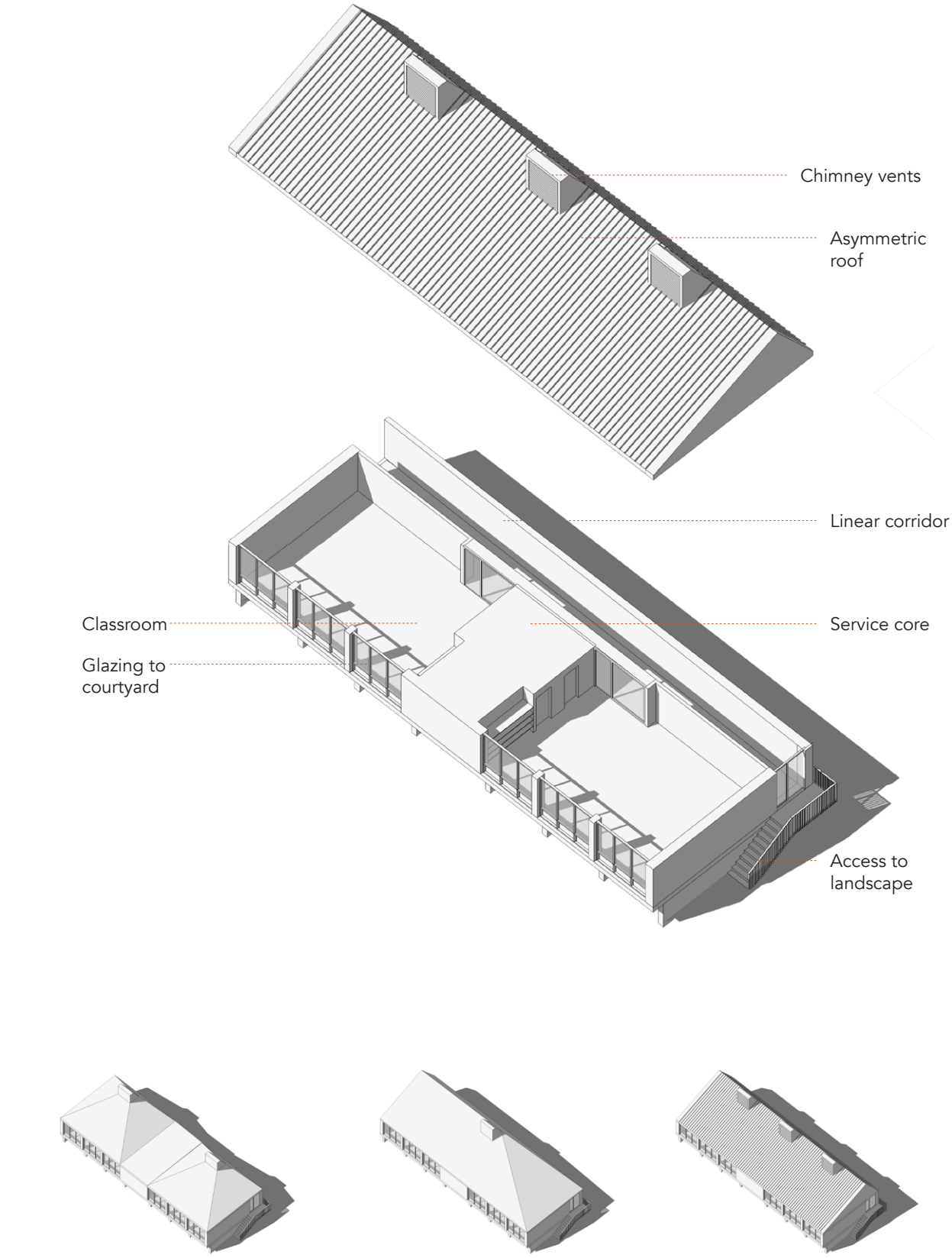
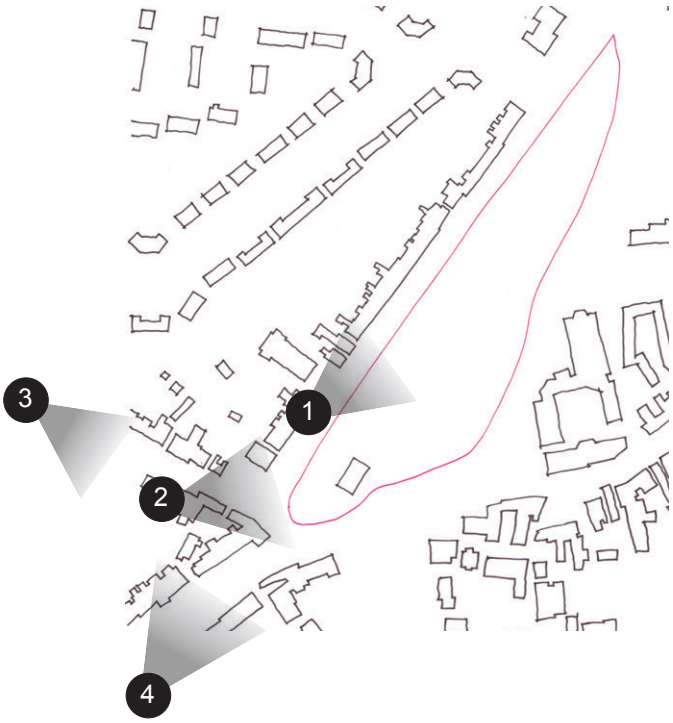


Fig 8.92. The paired classroom. Two classrooms share a central service core, accessed from a corridor down one side of the block. Different roof options are explored, from a continuous asymmetric roof to a hipped roof that reduced in scale to the river edge (Janus Face) and pavilions, articulating each classroom. Review suggested the next iteration of the classroom responds to orientation through manipulation of the roof.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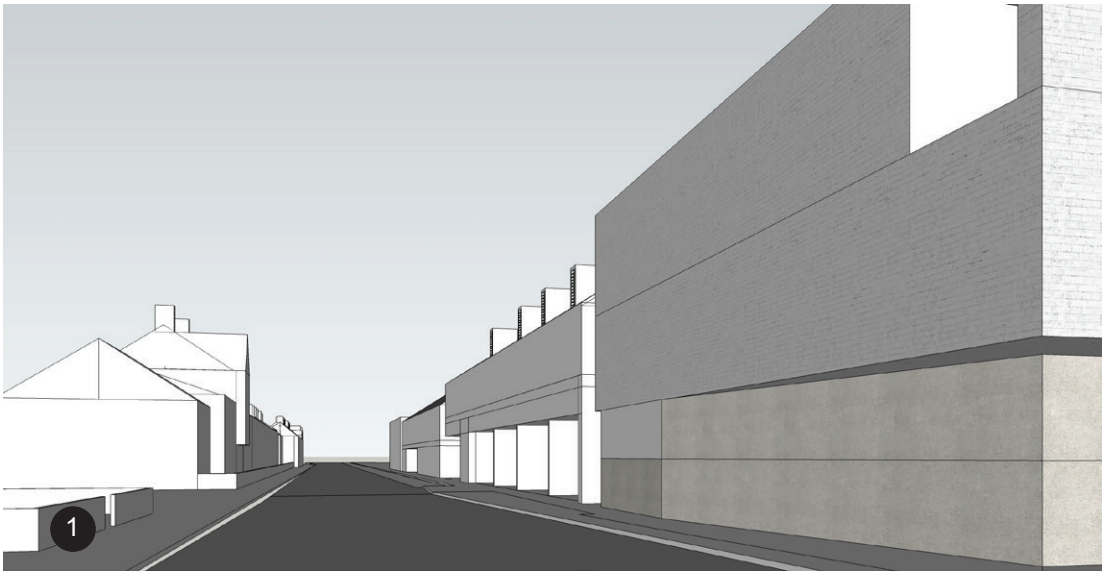
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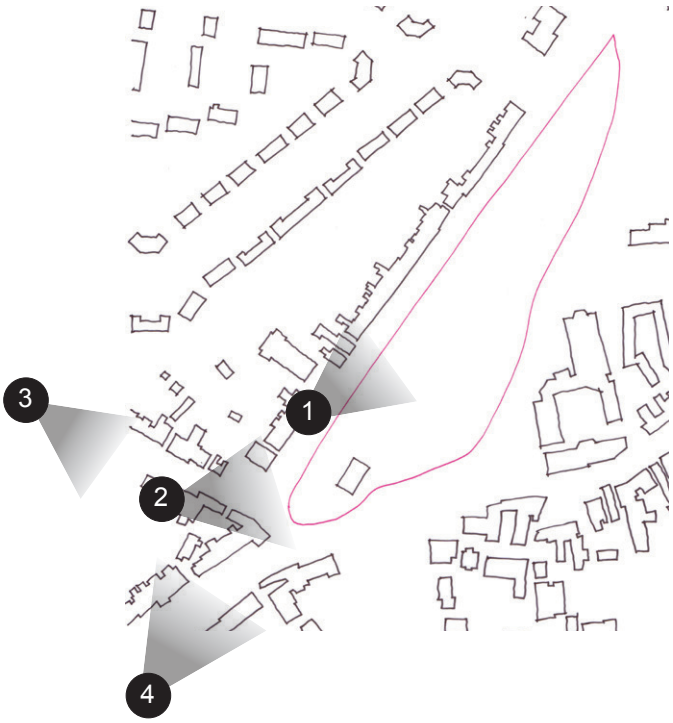
Stage 4 Summary:

- Street massing reduced by a split section in the north blocks. Street blocks are articulated more, breaking up the massing, but more is needed.
- Gallery block reduced in scale and 'eyes of Ruthin' introduced. The gallery block has less presence on the corner of the site than the previous two storey block had, but this is counteracted by the 'eyes'.
- Domestic school versus civic public facilities suggested by change in material (civic stone and domestic brick) and scale.
- Street facade sculpted to suggest routes, inflected to reflect access and entry to the buildings (constellation).
- Scale of ways tightened.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Stage 5 Summary:

- Massing as stage 4, but simplified roof to the street block and a change in materials between the civic community buildings and the educational facilities. Civic buildings are stone clad, while the school is red brick, reflecting the stone used in the town's Victorian civic buildings. A 1.5m concrete base reflects the level of the spaces within the project.
- Sports hall roof amended to a hipped roof rather than a north facing sawtooth, helping reduce its mass.
- Three storey corner block made flat roof with light cannons.
- The nursery is relocated to the north of the building in a new classroom block. This moves the nursery away from the most public part of the building and allows a public function to take its place.

Fig 8.93. Lower ground floor plan (street level)

1- craft gallery
2- community room
3- IT suite
4- Library
5- craft studios
6- plant

Fig 8.94. Upper ground floor plan (1.5m bund level)

1- Craft gallery
2- Cafe
3- Sports hall
4- Community rooms
5- Craft studios
6- IT suites
7- Library
8- Plant
9- Classroom
10- outdoor classroom
11- Administration
12- Hall
13- Kitchen
14- Nursery
15- Covered play are

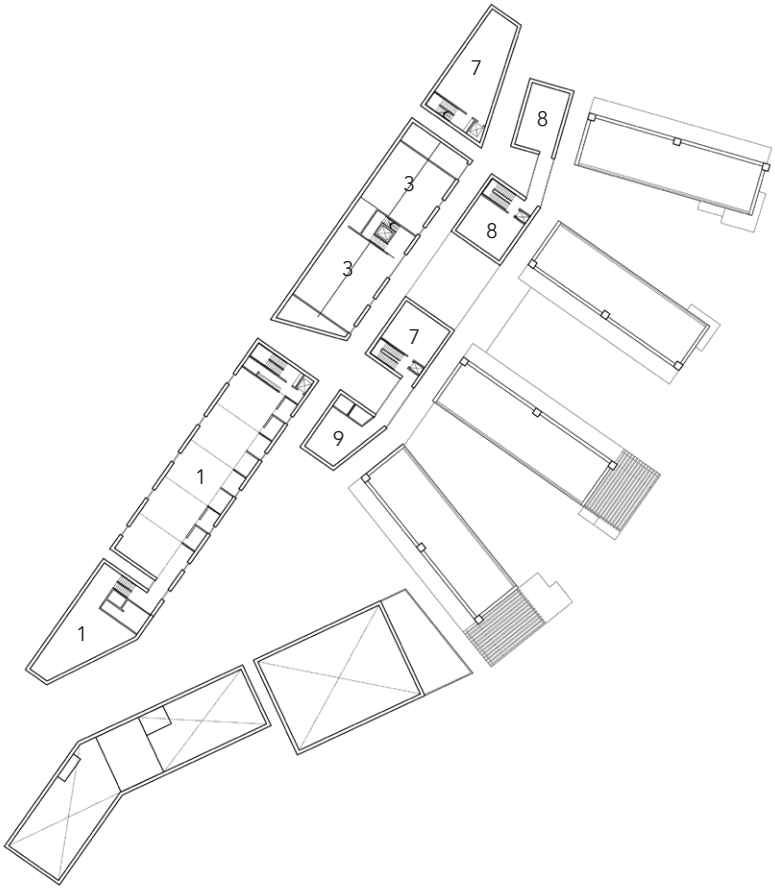


Fig 8.95. First floor plan

1- community room
2- craft workshop
3- Specialist teaching spaces (art/design)
4- Library
5- craft studios
6- plant
7- offices
8- group study room
9- staff room

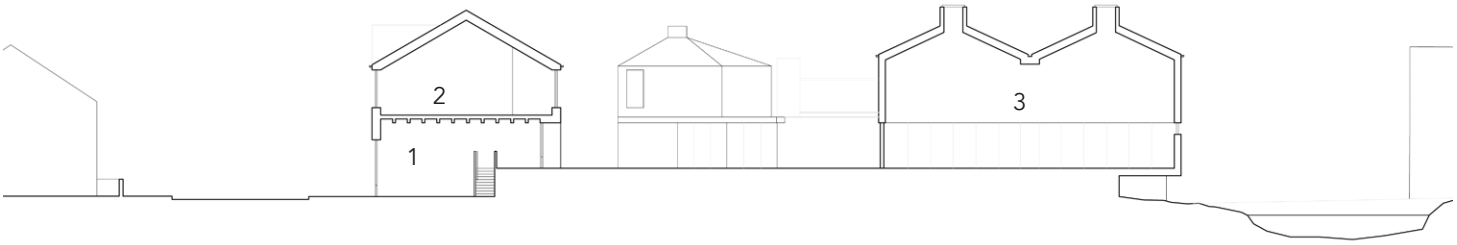


Fig 8.96. Short section through bounded square

1- Craft studio
2- Craft workshop
3- Sports hall

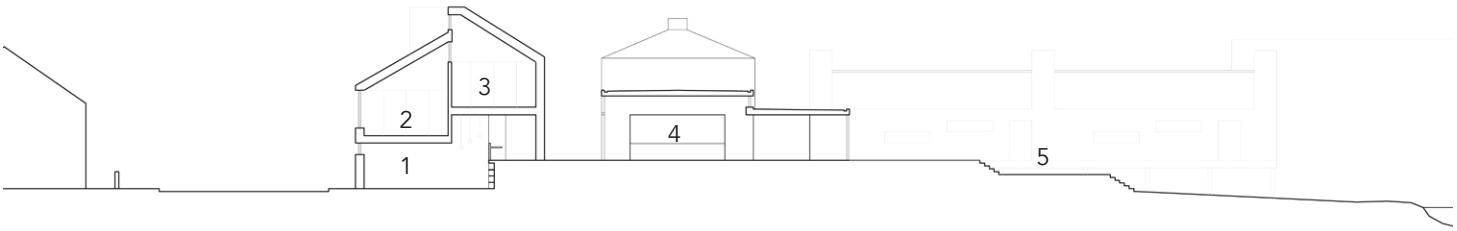


Fig 8.97. Short section through school hall

1- Library
2- Specialist teaching space
3- Specialist teaching space
4- Hall
5- Landscaped yard

Fig 8.98. View from the south west, showing the eyes of Ruthin and the three storey tower.

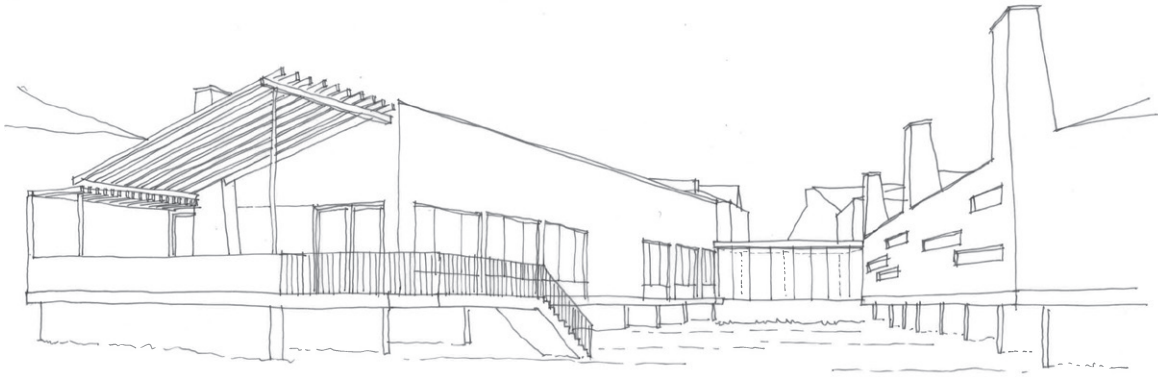


Fig 8.99. View of the classrooms from the river, showing monopitch roof with large openings on the north facade. A pergola canopy shelters an outdoor classroom at the end of the classroom block. These become detached from the classrooms as the design progresses, eventually becoming river pavilions that create teaching and play spaces along the river's edge.

Fig 8.100. Street facade, showing the change in scale created by sectional manipulation.

Fig 8.101. The education buildings have a less ordered facade and expressed entrances in contrast to the gridded facade of the craft studios. The split section, although effective in reducing the building mass, fragments the building and weakens the street edge. The split section also creates narrow spaces within the building that are not thought to be functional as teaching rooms.

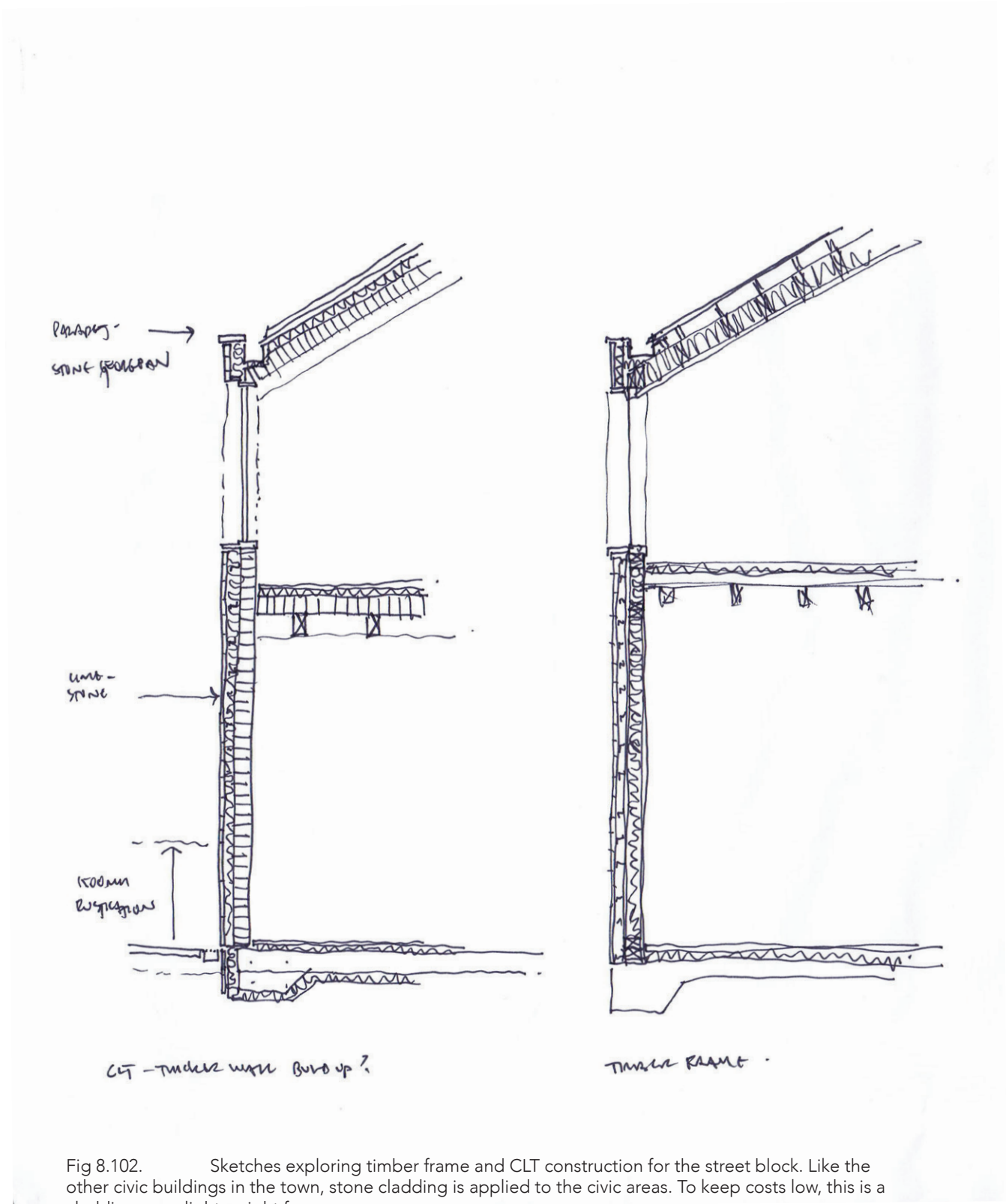


Fig 8.102. Sketches exploring timber frame and CLT construction for the street block. Like the other civic buildings in the town, stone cladding is applied to the civic areas. To keep costs low, this is a cladding on a light weight frame.

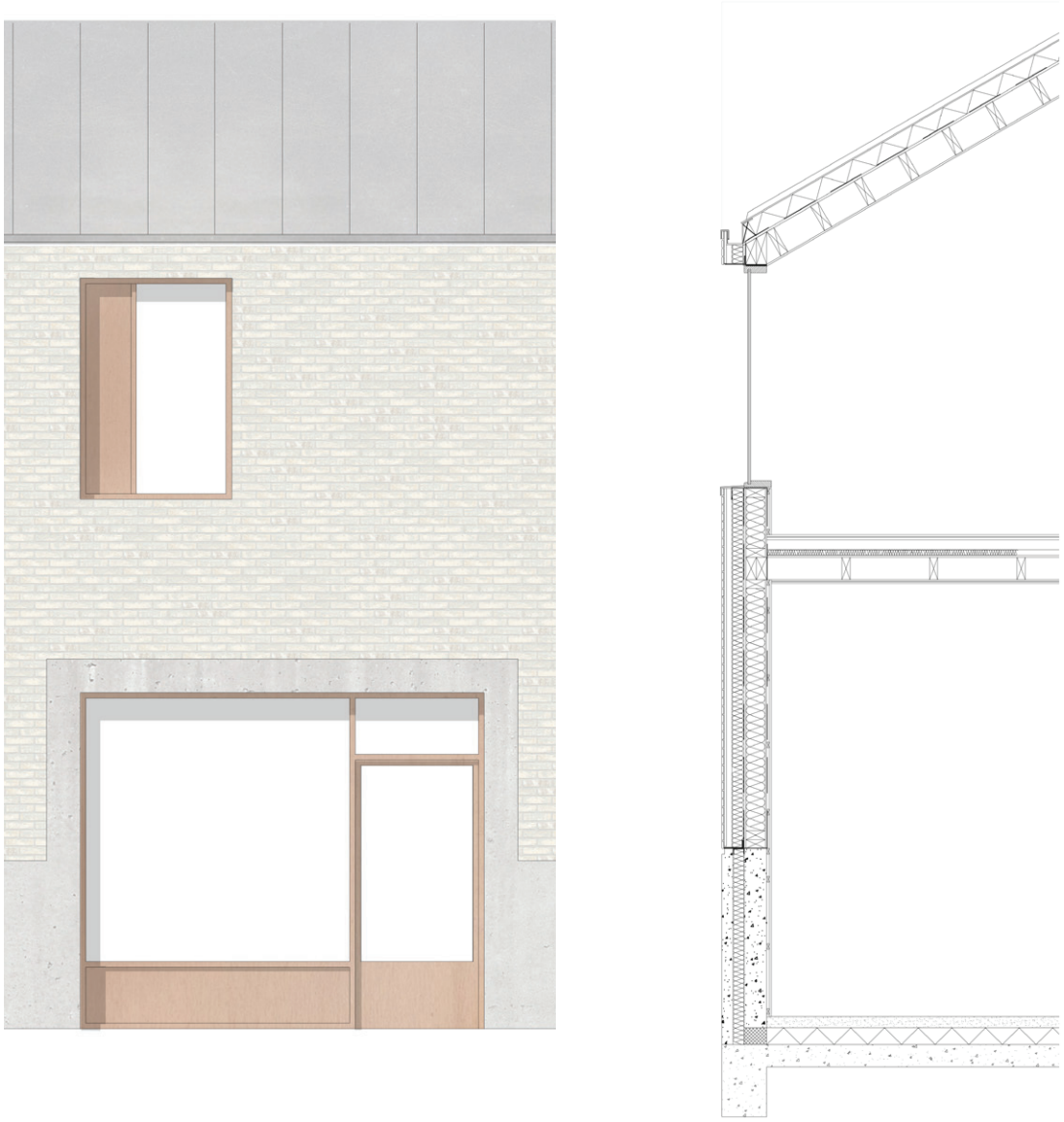


Fig 8.103. Section and elevation of the street block. In this option a 1.5m high plinth of concrete lines through with the level of the raised courtyard. The material palette of stone cladding or a light coloured brick and a red brick draws on local materials and matches the stone to a civic use and brick to a more domestic scale use, as happens in the town.

8.3.7 Peer review (28.10.15; present: Wayne Forster, Simon Unwin)

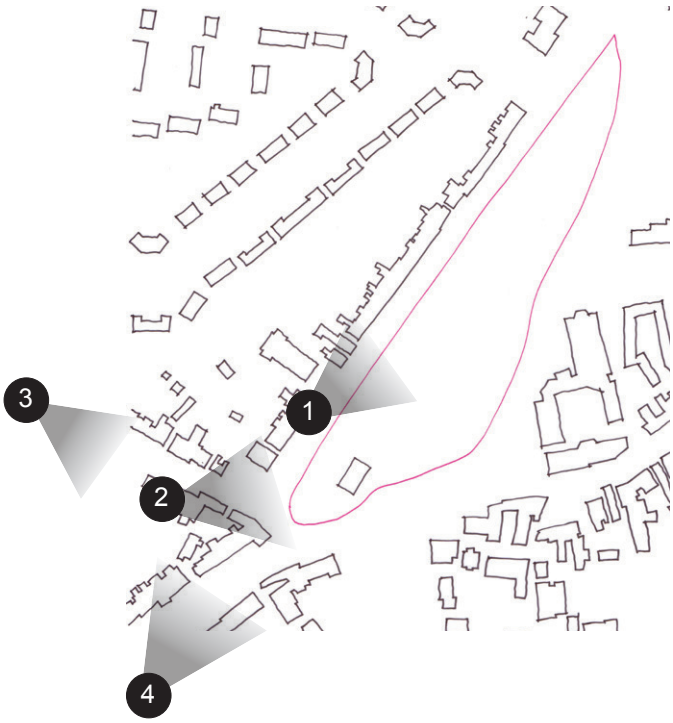
- Design through the operational framework:

- The cross cutting ways that link the historic core to the housing estate are vitally important for the site to act as an interface. Reinforce the cross cuts, as that's how the proposal knits into the town.
- The ways needs another turn to refine them, in terms of proximity and scale. Can the public access riverside? Maybe this needs to become an important route.
- Is the north-south link between the school and the hall, library and IT suite covered as an arcade? This might help define public and private routes.
- The diagrams of grain and ground notations are not driving the design at present. There may exist one grain or notation to the suburban edge of the site and another to the river that responds to the historic grain. The historic town has plots filled with building,, whereas the new is about subdivision as plots and buildings sitting within the plot.
- Consider the design of the classroom blocks further. Do the decks at the end of the fingers become disconnected, so the blocks disintegrate toward the river?
- Strategy and detail could be extended. Perhaps the street edge is simple and repetetive at 1:200 but modulated at 1:20 or 1:5 through recessed, sheltered doorways, seating etc. Perhaps this is the scale I should be inflecting the facade rather than 1:200 as in the drawings presented here. The tectonics of the project are unclear. Which are primary elements and how is the hierarchy of elements demonstrated?
- The massing in three dimensions is crucial in considering volumetric grain and constellation plan forms. Test the proposal again, in particular the rooofscape. Before & after photomontages could be used as a way of describing the impact.
- Regulation works against character of place. Must be subversive and progress the design in the best way for character of place, not regulation.

- Outcomes and next steps:

- The clearly defined programme might help to design a building that enables inhabitation. Exploring architects such as Herman Hertzerberger's designs for places and spaces for people should be considered as part of the framework. Does it need inhabitation of private space testing, or are the public spaces that are more important?
- Test the design against the operational framework further, in particular the scale and hierarchy of ways, ground notations, strategy and detail and volumetric grain. Ensure that tectonic aspects of the framework are explored.
- Explore the form and inhabitation of the design.

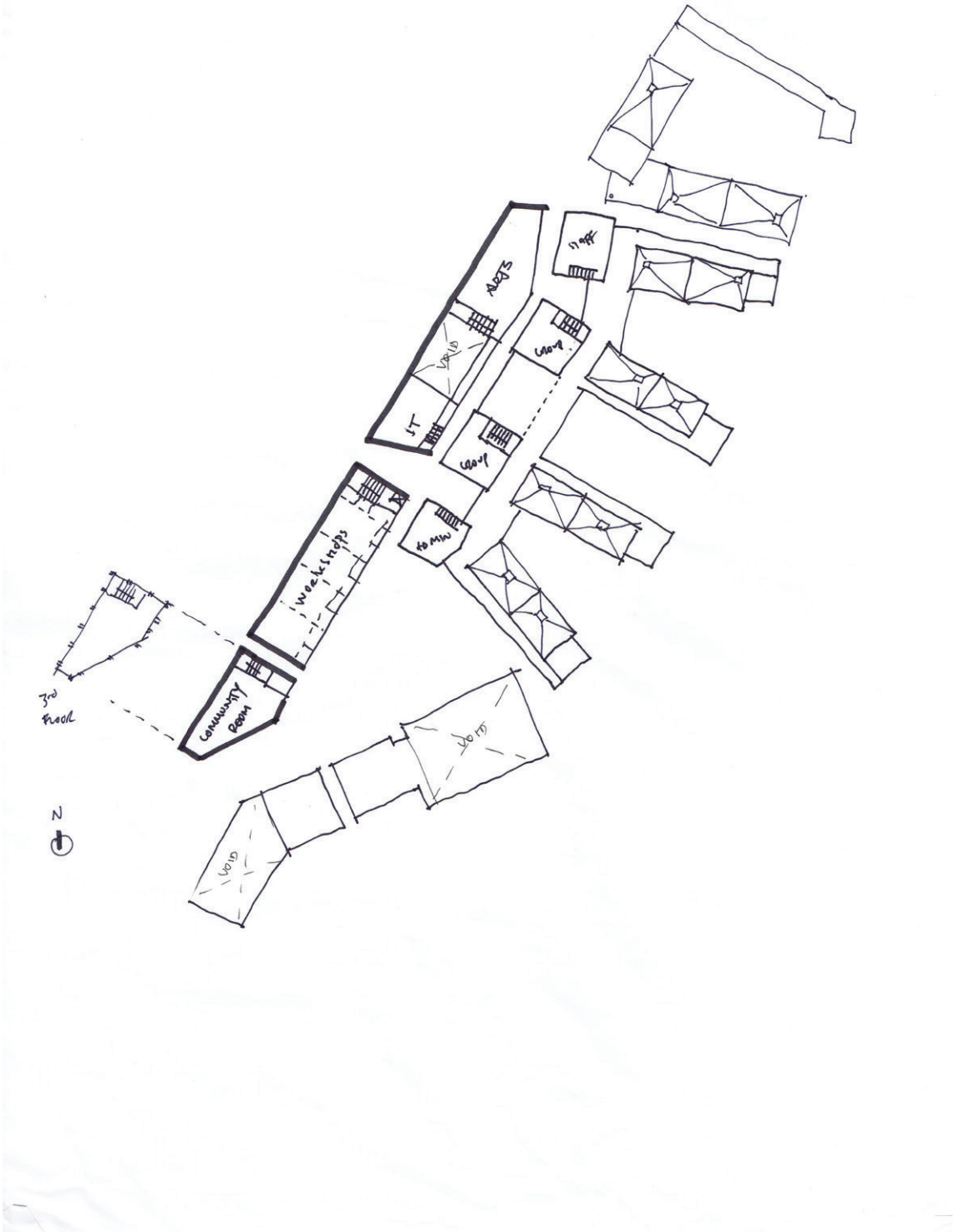
8.3.8 Design development



Stage 6 Summary:

- Peer review highlighted the lack of consideration of inhabitation. It was suggested to explore the articulation and inhabitation of the spaces created to create a sense of belonging.
- The hierarchy of ways has been refined further to give a greater variety of scales.
- The material language has been refined to a stone outer wall with brick internally, reflecting a tectonic of a hard enclosing wall. This has been further refined by reducing the mass of the building to the street, so it has a constant two storey height around its perimeter.
- The classrooms are given individual pitched roofs, creating a series of school 'houses' with domestic scale. These are seen as brick clad prismatic forms to contrast with the simple pitched roofs to the street blocks.
- Sculpting of the external wall has been reduced to give a more formal rigour to the external facade.

Fig 8.104. Combined ground floor plan, showing the thick stone wall. Courtyards are inhabited, with each school yard having a different character. Connections across the site are not fully resolved. Numbers refer to sketches on following pages.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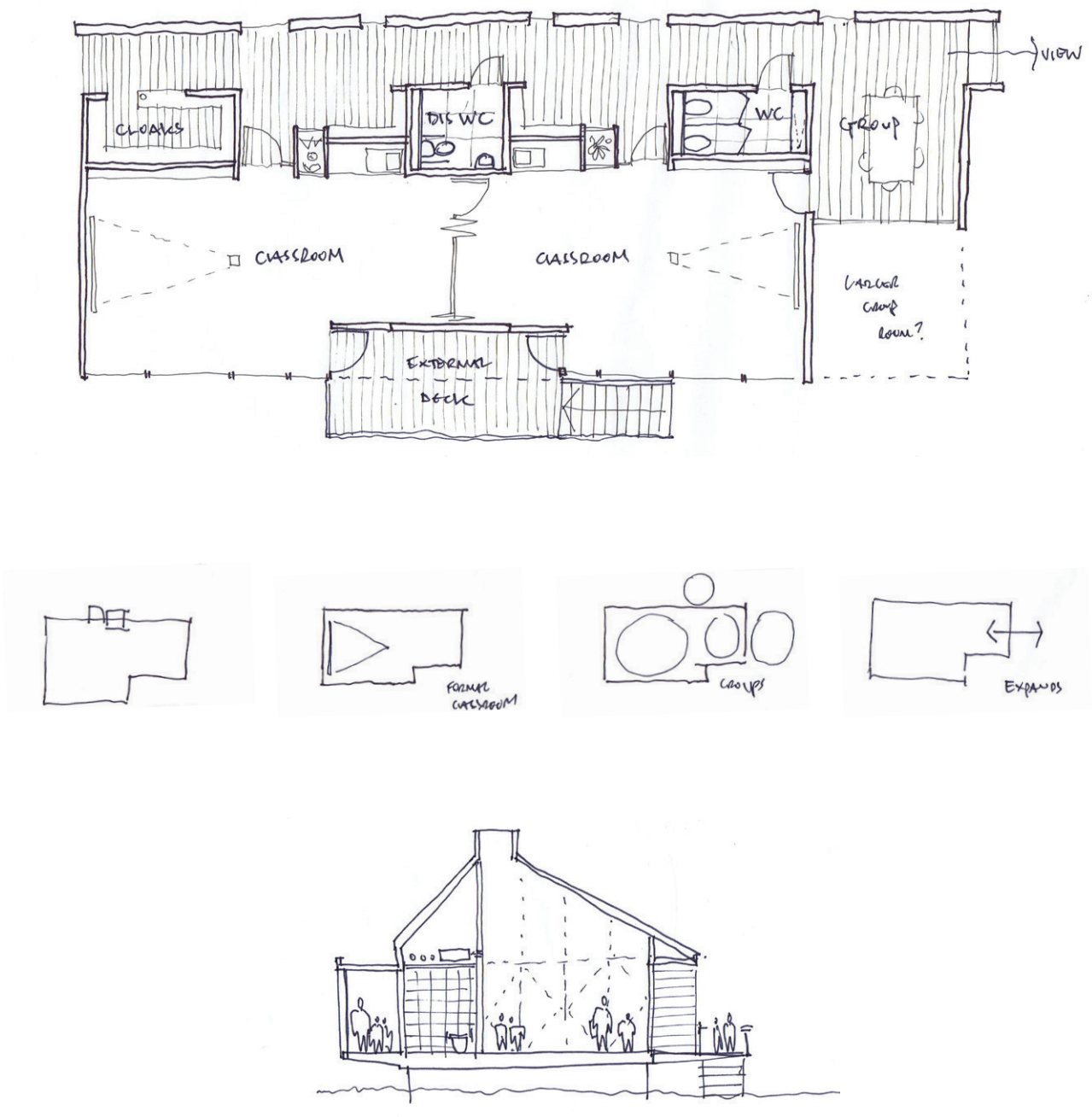

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Fig 8.106. Sketches exploring the articulation of the classroom to allow for different ways of using the space. Moments are sought for individual and small group work. The corridor becomes a space that can be used and inhabited rather than a circulation space.

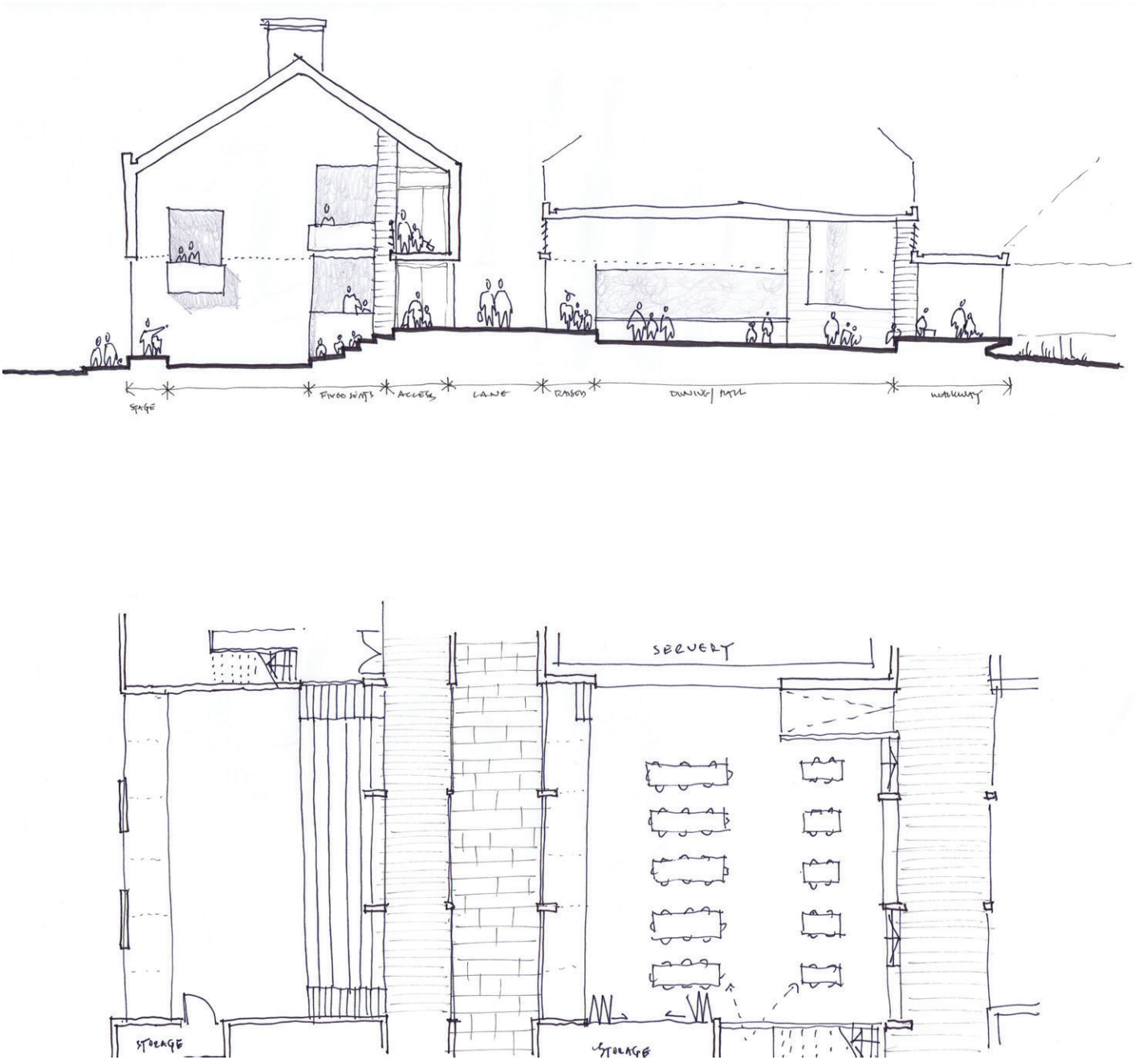

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Fig 8.107. Sketches exploring a school hall that cuts through the centre of the school. Moments for inhabitation such as sitting steps, balconies and ledges are design into the building. The spaces are able to host multiple activities, such as assemblies, lunch, performances and informal teaching.

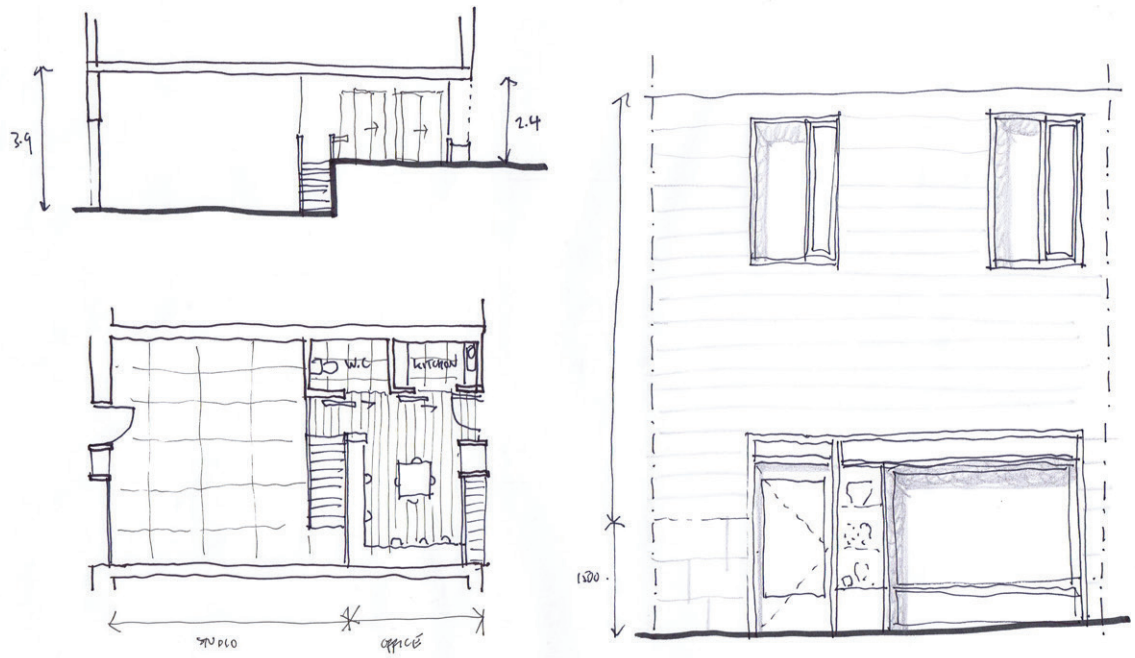


Fig 8.108. Sketches exploring the craft studios. The change in level between the courtyard and street level is used to divide a street facing workshop space from an office or gallery opening to the courtyard.

Fig 8.109. Elevation studies for a single bay of the street facade

8.3.9 Final design drawings

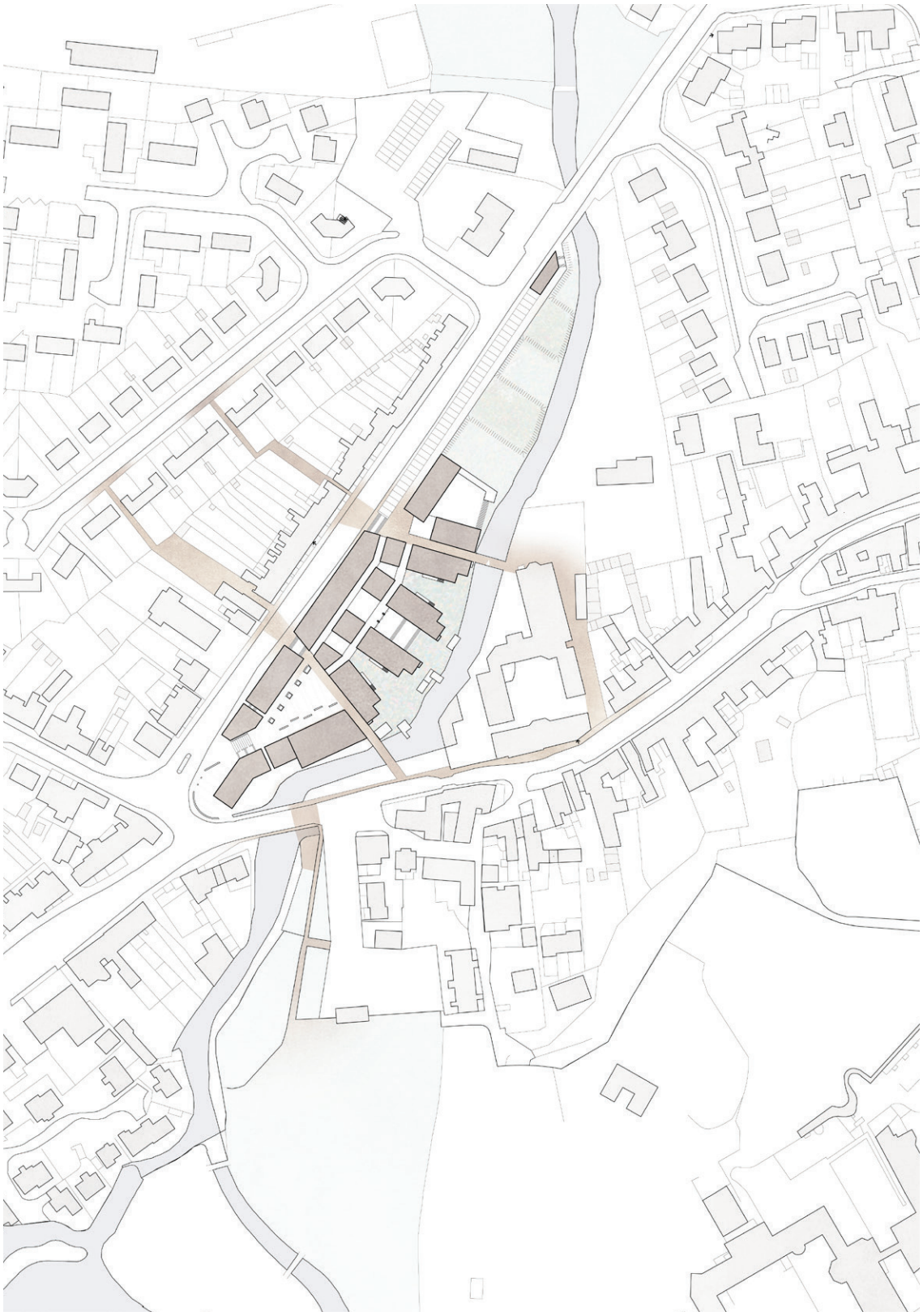


Fig 8.110. Site plan 1:2500

Fig 8.111. 1:1000 Lower ground floor plan (Street level)

1- craft gallery
2- cafe
3- Gymnasium
4- craft studios
5- Library
6- Hall
7- IT Suite
8- Plant

Fig 8.112. 1:1000 Upper ground floor plan

1- Craft gallery
2- Cafe
3- Public WC's
4- Craft studios
5- Gymnasium
6- Library
7- Hall
8- IT suite
9- Plant
10- Administration
11- Yard
12- Lockers & WC's
13- Dining hall
14- Kitchen
15- Music room
16- Classroom
17- Preschool classroom
18- Nursery classroom
19- hard play area
20- planted garden
21- river pavilions

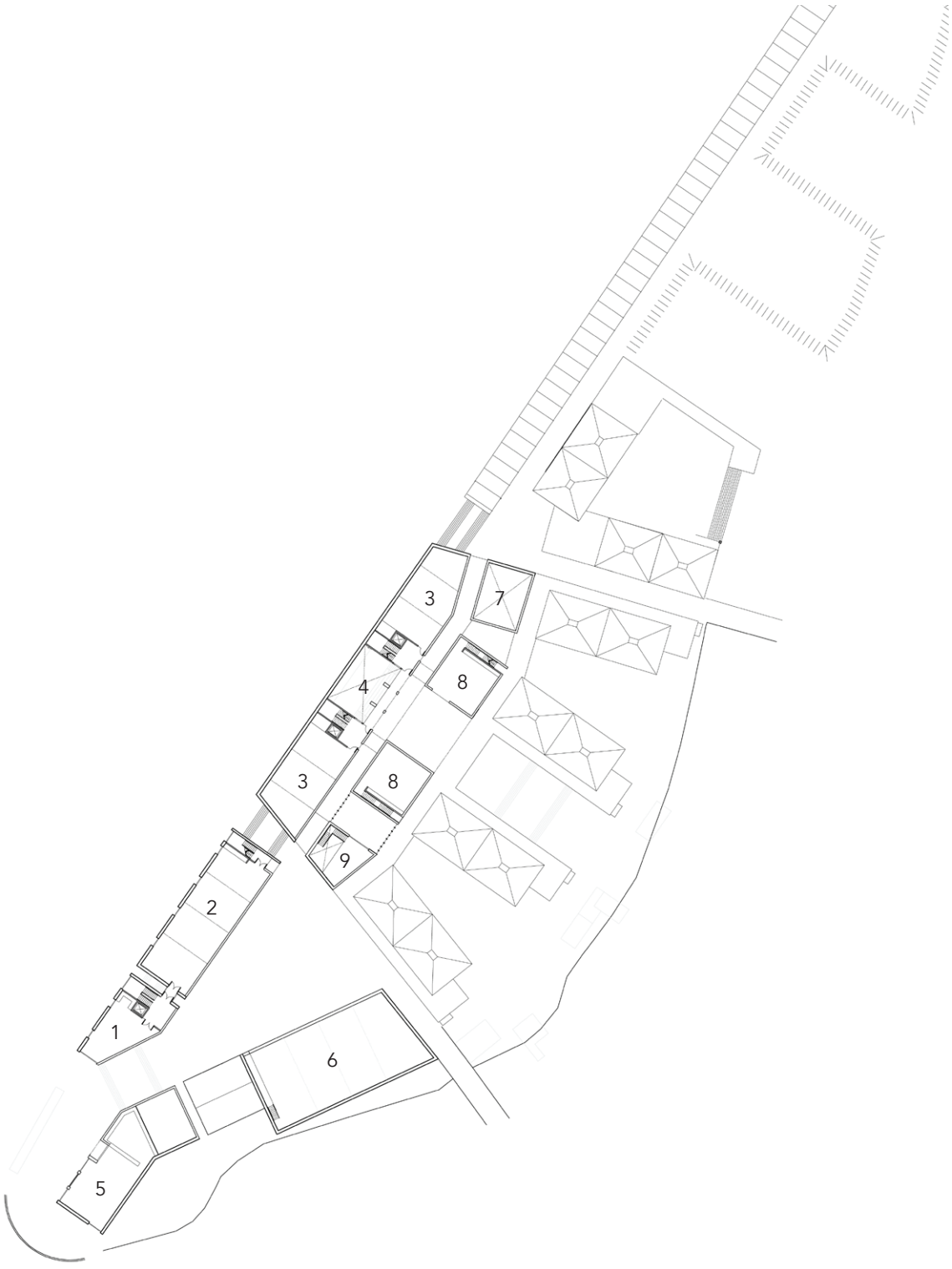


Fig 8.113. 1:1000 First floor plan

1- Community room
2- Craft/Design workshop
3- Specialist teaching space
4- Void over hall
5- Void over cafe
6- Void over gymnasium
7- Void over music room
8- Group room
9- Mezzanine office

Fig 8.114. Short section AA through craft studio & gymnasium

1- Craft studio
2- Craft workshop
3- Sports hall

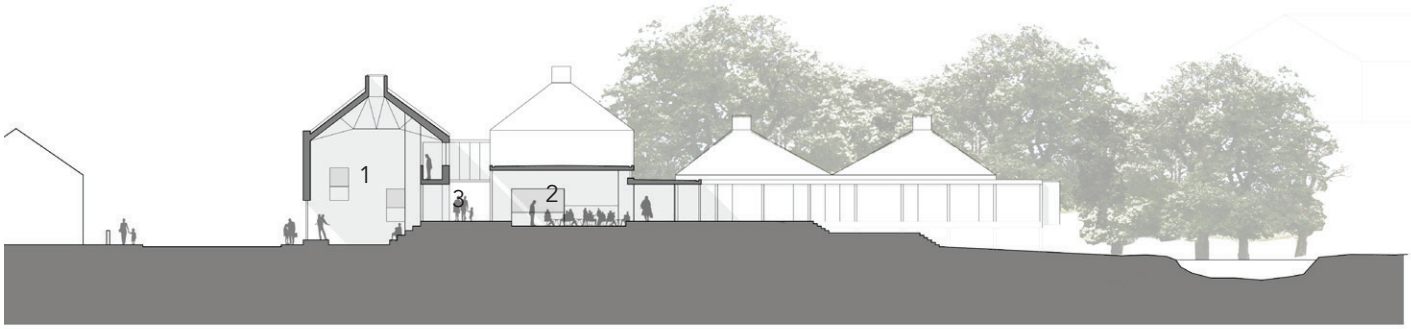
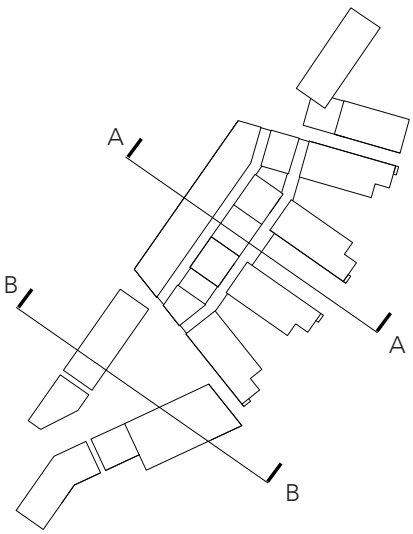


Fig 8.115. Short section BB through school hall, dining hall and courtyard

1- Hall
2- Dining hall
3- Lane



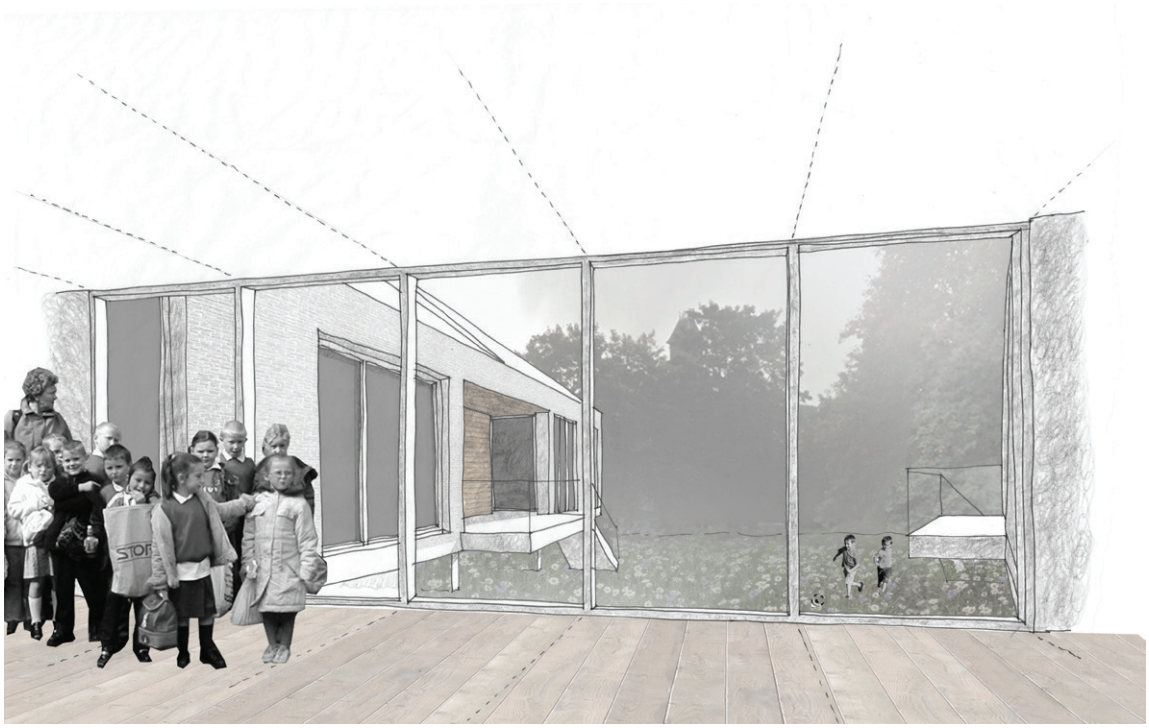


Fig 8.116. The link between the classrooms offers views to the river edge

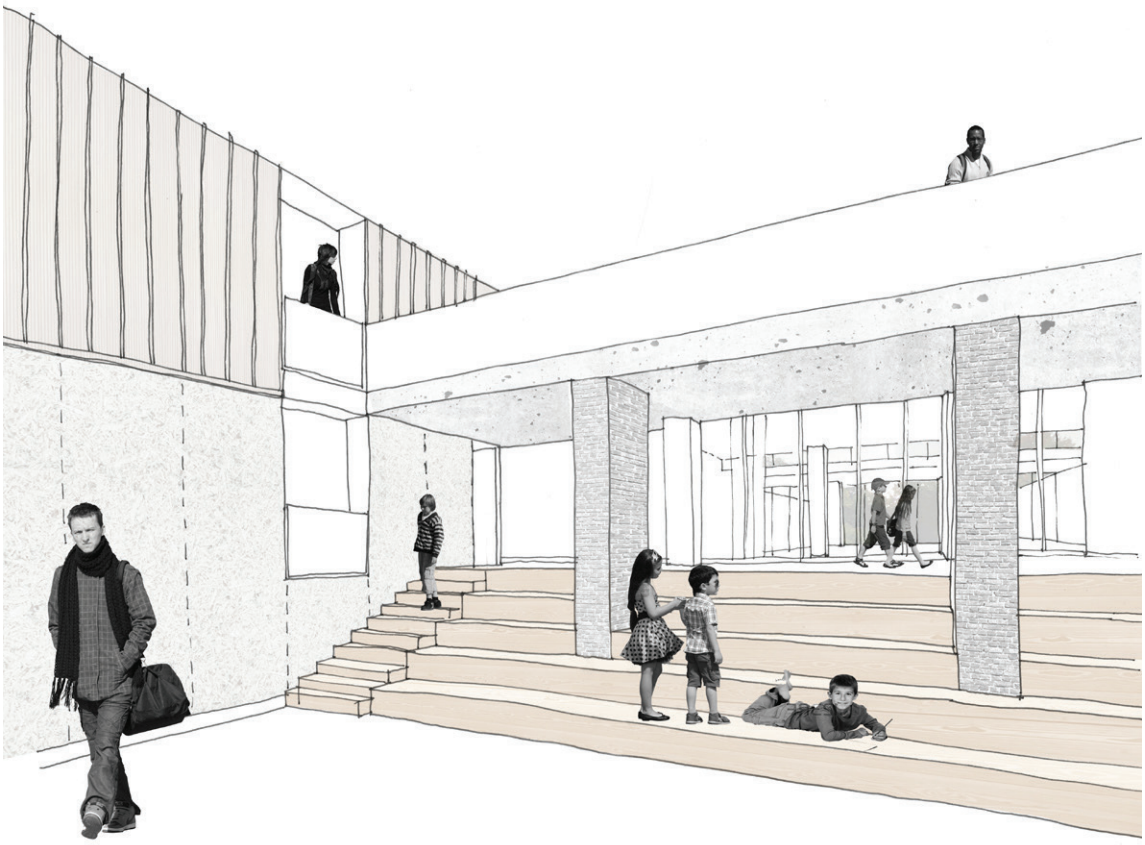


Fig 8.117. The hall extends from the street across the covered lane to the school dining hall beyond. Balconies and stairs that act as seating create activity in the space.

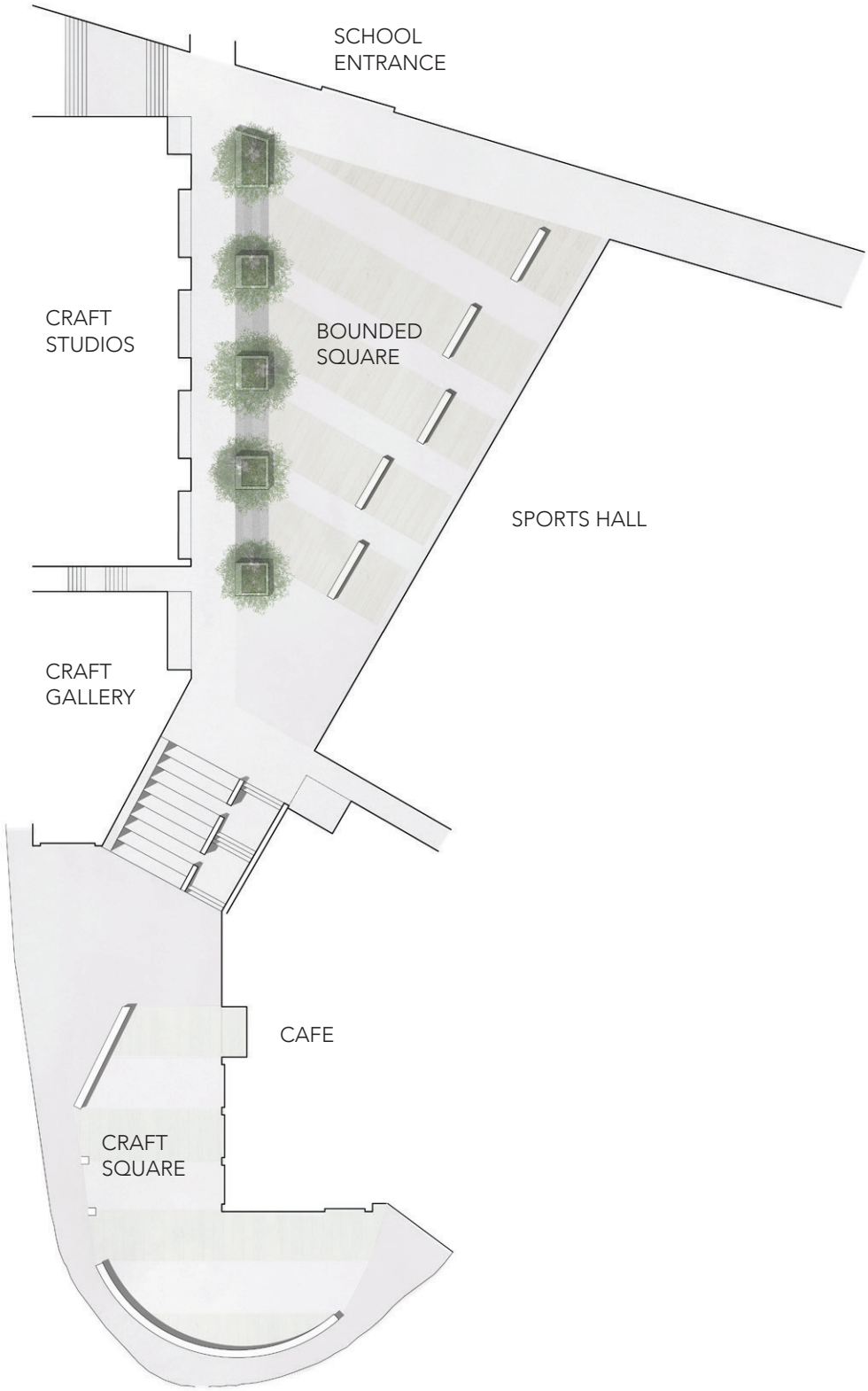


Fig 8.118. Plan of the outdoor public spaces and their connection

Fig 8.121. View toward the school in the bounded square.

Fig 8.119. Section of the bounded square at its widest

Fig 8.120. Section of the bounded square at its narrowest

Fig 8.122. Before & after view on approach from the west

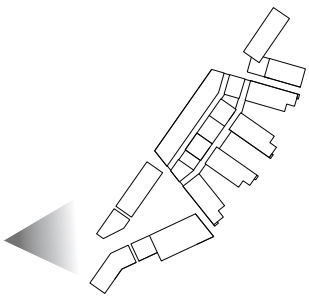
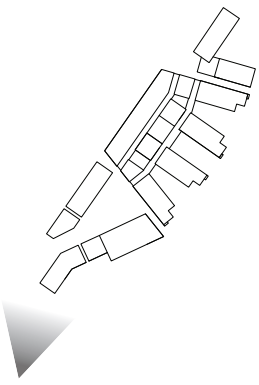


Fig 8.123. Before & after view on approach from the south



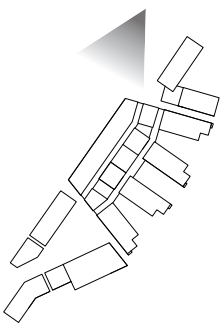


Fig 8.124. Before & after view on approach from the north

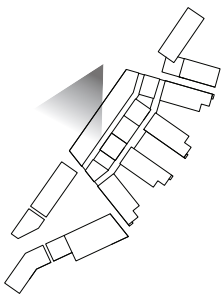
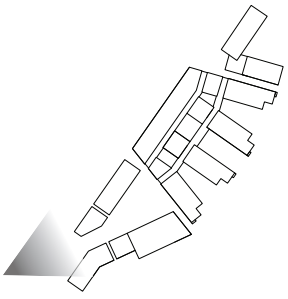


Fig 8.125. Before & after view looking past the hall toward the craft studios

Fig 8.126. Before & after view on approach from the south west



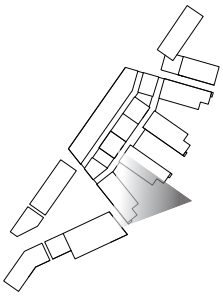


Fig 8.127. View of the classrooms from the river's edge

8.3.10 Peer review (17.02.16; present: Wayne Forster, Simon Unwin)

- Design through the operational framework:

- Reveal the design through the same framework as you analyse the town. The analysis behind the project is not clear. The presentation uses exactly the type of drawing to show the building in context that would be used in practice, but the thesis might require a number of different drawings to communicate the analysis underlying the project.
- Views and vistas apply within the parameters of the scheme but also the picturesque and how it sits within the place- how is that described in thesis? Make sure Cullen, Sitte, Unwin and the tradition of the picturesque are critiqued.
- The thesis proclaims that a place that is specific and significant can be created. This is the difference between architecture as stage set or an architecture that lives.
- The project is stronger on views of the scheme itself from the surrounding context rather than off the site. E.g.: views to the church spire, the gaol and the river. An awareness that you are in Ruthin when you are in the scheme is critical in making this a successful place. The space within the site is drawn rather than the views off the site.
- The people used in the perspective views are not communicating the narrative of occupation; there exists a separation of people, building and place. The places created are not complete until they are inhabited. In this way, placemaking extends beyond contextualism to an intimate relationship between people and palce through an intimate interaction with a building. The aim should be that whoever goes to the school here knows they are in Ruthin. For example, are key views framed out of the windows?
- Ways are still not fully resolved; the scales of ways and their hierarchy are not clearly expressed. There is more variety in this project, but it is not clear in all the drawings presented.
- A drawing of the routes extending out of the site would be useful. If the bridge is a principal entrance this needs further exploration, as does the extension of the ways into the suburban housing. This could include borrowing landscapes around the site as happened in the picturesque- for example, Cae Ddol, the bridge and the pocket of space on Clwyd Street.
- The gymnasium presents a blind wall to the public square. The best public squares are often performance spaces, from everyday to formal performance- from sitting in a cafe watching the life of the square to more formal, such as music and film. The potential for blank wall to unzip and activate the space as a theatre, outdoor cinema or a viewing deck for the sports hall should be explored. with the circle in the cafe and the stalls in the square. The architecture should not only be about the building but about the activity and life that exists there.
- The geometry of the southwest corner of the site is problematic; the café is peripheral whereas it should be key to inhabiting square, and a blank gable is presented to a major

route toward the site. Perhaps the café block here should turn to complete the courtyard and be entered underneath or through the block. This blocks the vista through to the church, but this would be revealed once the square is entered. The cafe could be located to look over square a transition between the public realm and the square with views to both. It can then activate the square and have views to the gaol, the church, back to the street, and into the square itself (allowing for inhabitation). It weakens the janus face aspect of the framework if no building is included.

- The proposal recognises the picturesque potential of place but it needs to be inhabitable and functional (eg: environmental strategy as well as inhabitation). But this needs to be explicit in the project (should it be explicit in the framework?) Does the environmental aspect need to be added, or is this a way of abstracting elements such as the chimneys? Environmental considerations have come out of the articulation of the simple form.
- The 'redress of architecture'- the review suggested architecture has become a spectator sport rather than something that takes care of how people live and interact with buildings. This is a moral-political dimension that shouldn't be underplayed in the thesis. What emerges from interrogation of work is that role of inhabitant has to be factored into the framework.
- How important is explicit construction as part of the framework? Maybe solidity and truth should be enforced over veneer and contemporary building techniques. This is a moral and ethical consideration but brings with it difficulties of detailing.
- As a tectonic element the bounding wall should be thicker. It should be authentic as it defines the site. Perhaps the internal walls within the site are economically constructed. Is that a way for the future, to invest in the carapace and keep the building cheaper inside? This should be debated and explored further in the design addendum.

- Outcomes and next steps:

- Add a design addendum which extends the design thorugh a number of steps:
- Explore opportunities for inhabitation. Where is the place you sit and read a book by a window watching people walking past, what is the square like if the kids play football in there, where does the teacher take the class on a sunny day, steps become a seat for performance, or where do they site under a tree at storytime? Inhabit it with people, events, stories. A dialogue with the place, what Van Eyck describes as "built homecoming".
- Extend the consideration of material and detail further and explore different approaches to how the building is constructed.
- Describe the ways thorugh the site and into the surrounding context through serial vision and exploration of key points along the cross cutting routes.
- Reconsider the location of the café and craft gallery.

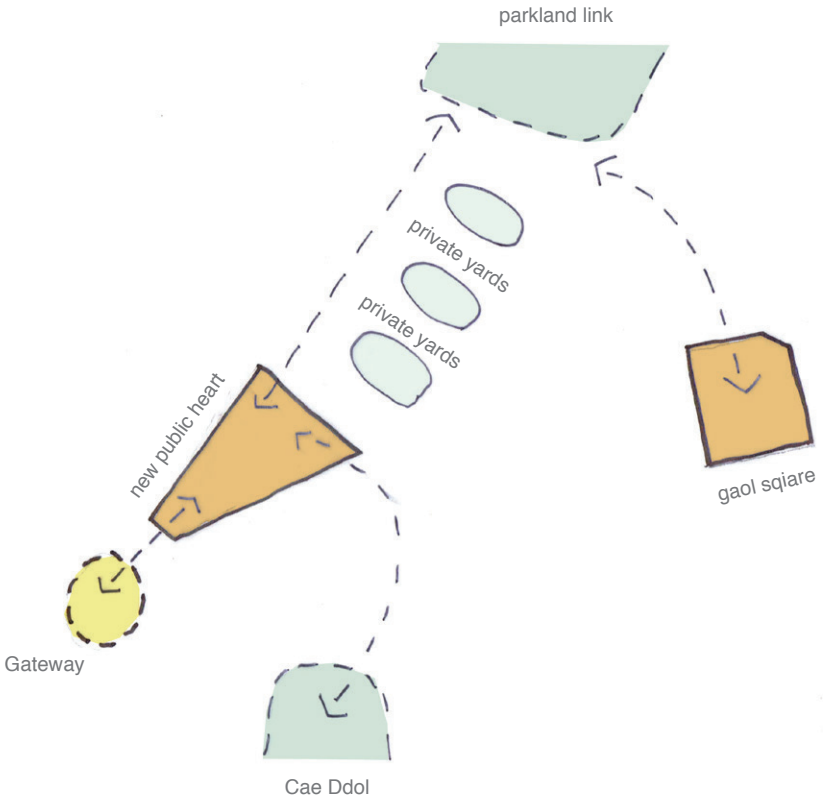


Fig 8.128. Creating a centre with public uses, organised around a series of outdoor spaces with a bounded square as a public heart.

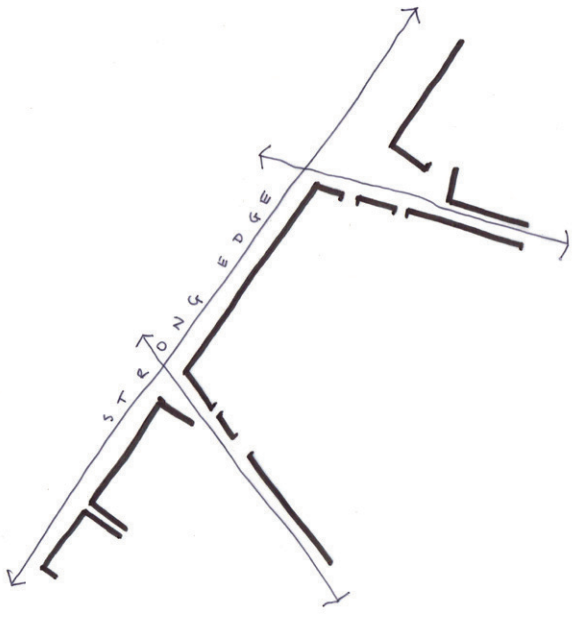


Fig 8.129. A strong street edge and edge to the ways through the site are created.

8.3.11 Review through the operational framework

Landscape

-Centre

In its function, the project aims to create a new community focused centre for the town that connects the historic core to the suburbs beyond. It creates a new public square and connections and a series of landscape spaces framed by buildings (fig. 8.13). The proposal tries to break down the edges of the historic town and the suburbs and create stronger links between the two. A new secondary centre is created that can be seen as having a similar scale and role in the community as the Craft Centre. However, the public use of the design is seen as potentially much higher than at the Craft Centre, due to the types of space created. Public functions such as community rooms, cafe, sports hall and craft workshops are located around a bounded square, with the potential to enliven it. However, peer review suggested that this was not evident and how the space could be used and inhabited should be explored further.

-Edge/Boundary

The site has strong edges on the east and west- the Gaol wall and a terrace of houses. Whereas the Ludlow Food Centre aimed to create a strong edge to the town, on this interface site the aim is to break through the strong edges and increase permeability across the site to better connect the historic and suburban town (fig. 8.134). To achieve this, existing openings, yards and alleys in the terrace have been exploited, widened and connected to link to the suburban housing beyond. An existing bridge is replaced to connect to Cae Dhol park and the historic core, and a bridge reinstated to link to the Gaol courtyard.

While the site was carefully considered in its context, the links and connections beyond could be made stronger. The site boundary has constrained the project, whereas it should be utilising spaces beyond the site to strengthen the connections and weave the building into the place. There are several points around the site where areas of the surrounding could be 'borrowed' to strengthen this: the bridge crossing to Clwyd Street at the south of the site, where there is an area of scrubland and young trees where the bridge link ends; the courtyard in front of the Eglwys y Bedyddwyr on Park Road, currently an area of grass with a perimeter hedge; the connection to the park to the south of the site alongside the river; and the connection north from the site towards Glasdir. What this means in practice could be explored further.

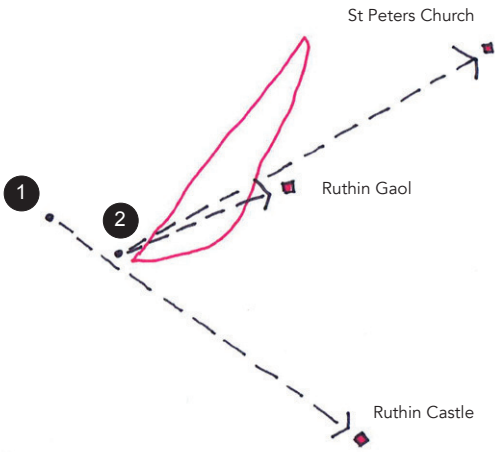


Fig 8.130. Views around and through the site are preserved and framed.

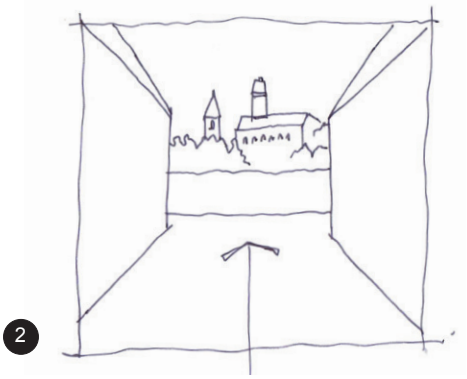


Fig 8.133. A viewing corridor frames the gaol tower and St Peter's Church

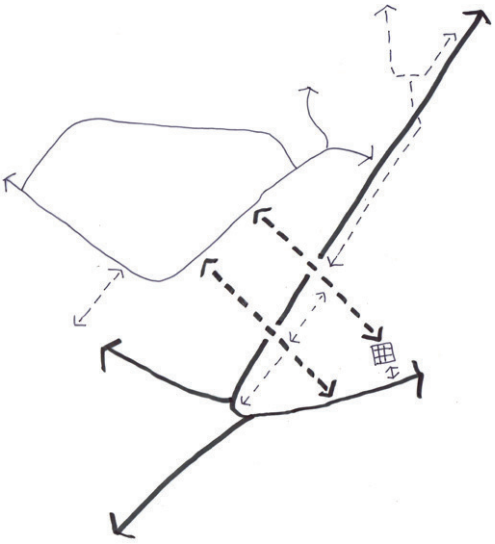


Fig 8.131. Two new ways connect the housing estate to the historic core, stitching the two areas of the town together.

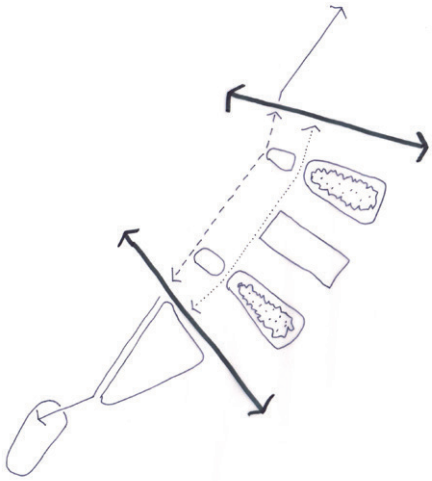


Fig 8.132. Two primary ways cross the site and bridge over the river to the east end and punch through the terrace to the west housing.

-View & Vista

The site is a gateway to the old town. Approach from the west on the Denbigh Road reveals a serial vision where the markers in the town are gradually revealed; first, the castle tower, then the gaol tower and the spire of St Peter's Church (figs 8.135 & 8.136). The view across the site from this approach to the Gaol tower and St Peter's Church was an important driver of the building form. However, this is only successful when approached from one point. The impact of favouring this view as a viewing corridor through the project is to create a weak central square with one edge open. Perhaps this is not the most appropriate approach; by only considering views onto the site and from one particular place the experience of the place is limited. The importance of the cross cutting routes as opposed to entrance from this corner of the site suggests the viewing corridor places too much importance on this approach to the building. A missing study is the reciprocal relationship, how the context appears from with the building- how it is framed, revealed and how connections are made to the place the building is in. This requires further exploration.

Morphology

-Ways

The proposal aims to create new ways from the historic town to the suburban town (fig. 8.136). Examination of the scale of streets, lanes and alleys highlighted that although not as consistent as in Ludlow, there were identifiable scales of ways that could be interpreted. The two bridge connections across the river, one to the Gaol and a second to Clwyd Street determined the location of ways across the site (fig. 8.137).

Two new public spaces are created as part of the proposal; a 'craft square' at the corner of Park Street and Clwyd Street, creating a public space at the gateway, and a larger square at the heart of the proposal. A craft gallery opens onto the first space, and it is seen as having potential for external exhibits or display in the space. It is also the entry to the second public space, accessed via steps. This second public space is a bounded square comparable to the public space at the Craft Centre or the gaol- an external room with a public function. This is flanked by primarily community facilities, including the café, community rooms and craft studios, as well as the main entrance to the school. From this square, a bridge links over the river to Clwyd Street and a 3m wide lane leads northeast through the school and learning resource centre. East-west connections through the street block end in small yards alongside the school. To the north, the lane continues on a raised bund, dividing car parking from green courts and connecting to pedestrian routes to the Glasdir estate and the hinterland beyond.

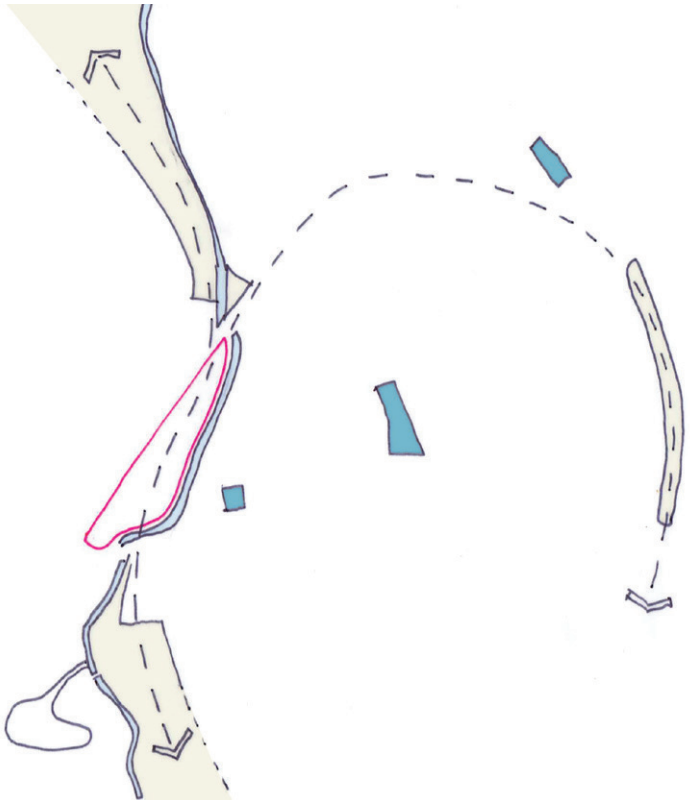


Fig 8.134. The design supports the creation of links between Cae Ddol and the riverside walk through a north south route, as well as connecting east west from the housing estate to the historic town.

Fig 8.135. The linear pattern of plots to the north west informed the design of the street edge of the building

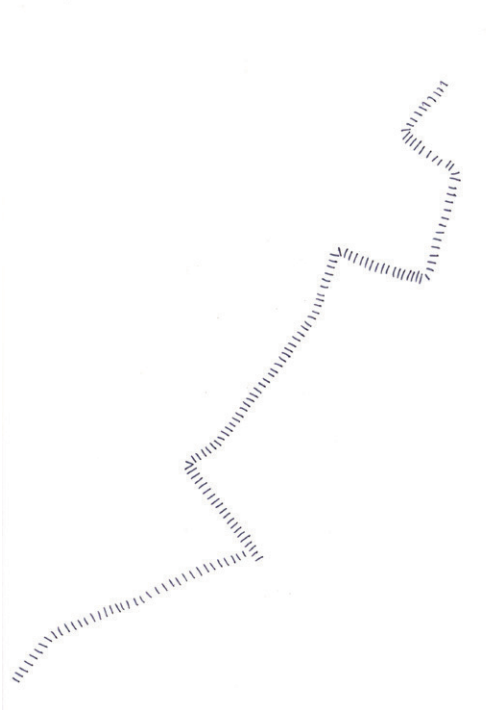


Fig 8.136. The existing bunds were manipulated and the building raised, making the flood defences part of the building

As in previous projects, the scale of these could be refined. The intent was to create a hierarchy of pedestrian lanes and alleys culminating in the central square and 'craft square' to the south. Two covered arcades run north-south, one public that divides the school from the shared facilities and a second that is private within the school. The scale of ways is further drawn through the building, in particular in the school where an alley at one side of the classroom expands and contracts to create break out and group learning spaces. However, a finer grain of ways could be explored to offer a range of experiences from the street-like to more intimate alleys.

-Connections

New routes through the site link the historic town fabric to the housing to the west, enabling direct connection between the site, the suburban town and the historic town (fig. 8.139).
An existing bridge link to the site from Clwyd Street is maintained and a second crossing is reintroduced into the gaol. Historic maps show that a bridge link existed here in the early 20th century and the remains of the bridge footing and gateway through the gaol wall are visible. Reintroducing this route will increase permeability and will draw people through the under used gaol site to the community school. Connections to the west across Park Street cut through gaps in the existing fabric to create new links to the area of housing beyond. A secondary link runs north-south, reinforcing and improving existing routes and connecting to the bridge crossing to Glasdir to the junction of Mwrog Street and Denbigh Road to the south.

-Ground notations

The site is an important part of the defences protecting housing to the west from flood. Currently, earth bunds run behind the car park and zig zag across the northern end of the site. These allow areas of the site to flood, alleviating flooding, but mean that the park is separated from the street and is accessed by paths that climb and descend the 1.5m high bunds. This barrier creates another edge to the site that prevents its use. The snaking pattern of bunds has been important in the decision to raise the building on a plinth to 1.5m above ground level, creating a new bund and framing green spaces alongside the river. (fig. 8.141) Classrooms are raised above ground level, protecting them from floodwaters. Along street edge block to the north west, the learning resource centre and craft studies negotiate this change in level through split sections. Like the bunds, the plinth allows the river to flood but raises the buildings and public space above predicted flood levels. To the north, a linear bund separates car parking from defined pockets of park, growing space and playground linked to the school.

There are no existing plots on the site and little evidence of organising patterns. However,

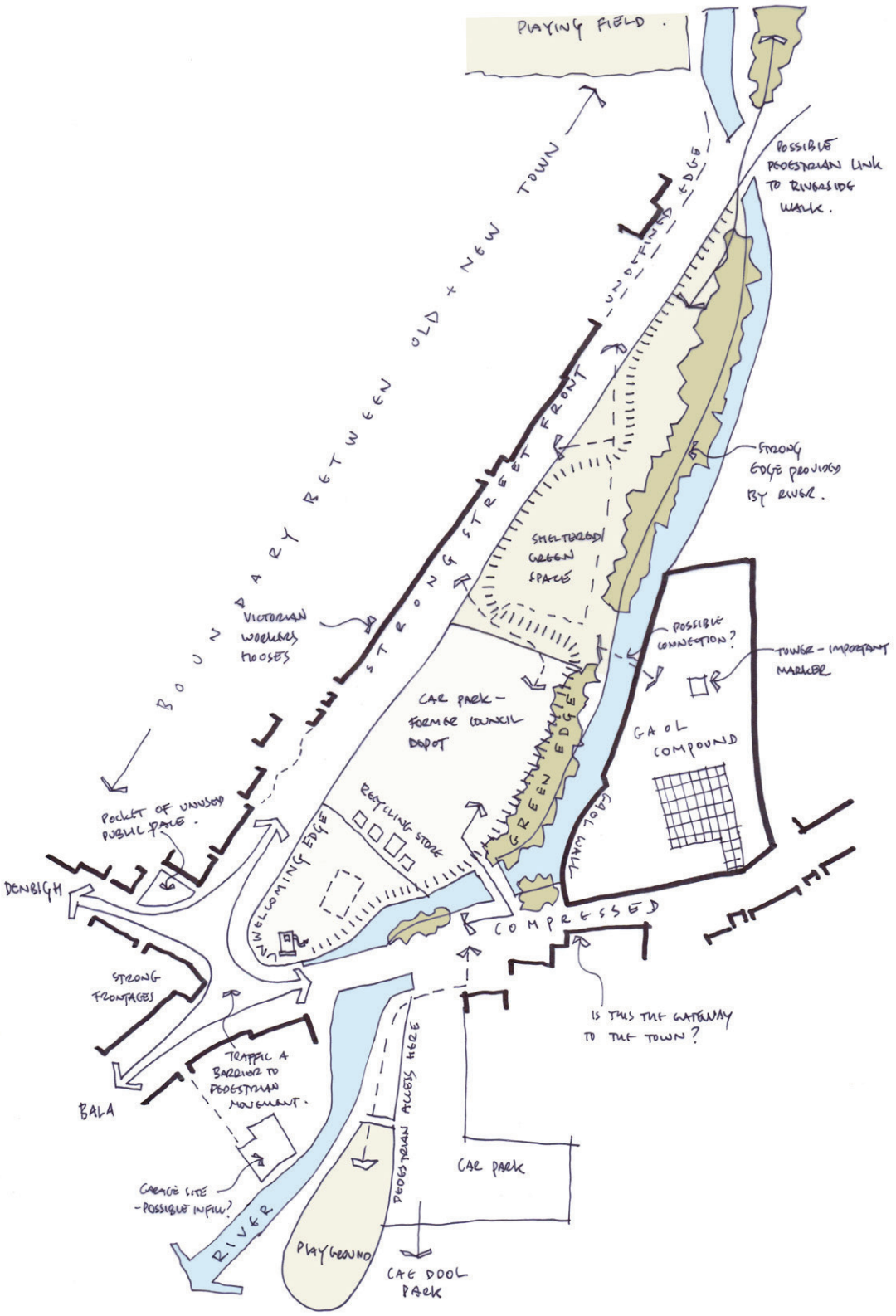


Fig 8.137. As found conditions

around the site are different grids of ownership and plot sizes (fig. 8.140). Drawing these across the site led to a complex overlay of competing grids. On reflection, it seemed that the site has the strongest relationship with the Victorian houses to the northwest; the grid of plots here was taken as a starting point for the organisation of the strong edge to this site of the site. The roadside block reflects the domestic scale of the houses opposite, both in elevation treatment and division of space. Deeper within the site, this rhythm breaks down as it collides with the competing geometries of ways and connections.

-As found

The site as found was explored more thoroughly than in Ludlow (fig. 8.142). The attitude of unearthing clues and existing patterns to inform design has been effective. The approach to as found identified three important elements that could inform the design: the flood defence bunds, the view across the site and the bridge connections. These as found conditions became conceptual underpinnings for the design.

Spatial character

-Volumetric grain

The grain of the surroundings varies considerably. To the east is the high stone wall of the gaol with dense medieval fabric beyond. To the west, a well-defined terrace of Victorian workers housing is surrounded by suburban development, primarily semi-detached houses. The north east is dominated by a 1960's development of detached houses in the centre of their plots. The south is dominated by a three storey dark brick public house and workers housing.

The scale of the massing was carefully considered in response to the houses opposite and reduced in scale to the river edge. At various stages of development the massing changed, which higher massing to the south or taller floor-to-floor heights. However, the impact of this on the neigbouring buildings was seen as a negative aspect of the massing, and the building compressed and kept to two storeys in the final proposal. The larger volume of the sports hall is difficult to break down; in the final proposal this is sunk below ground level to reduce the massing. With such a varied grain, the proposal responds primarily to the medieval grain of yards and courts to create volumes that knit into the surrounding context (Fig. 8.143).

Stepping up to the raised bunds and public space offer the opportunity to exploit the section of the buildings, particularly to the street edge. Here, the craft studios have a split section at ground floor, creating a generous volume for each studio as a workshop space.

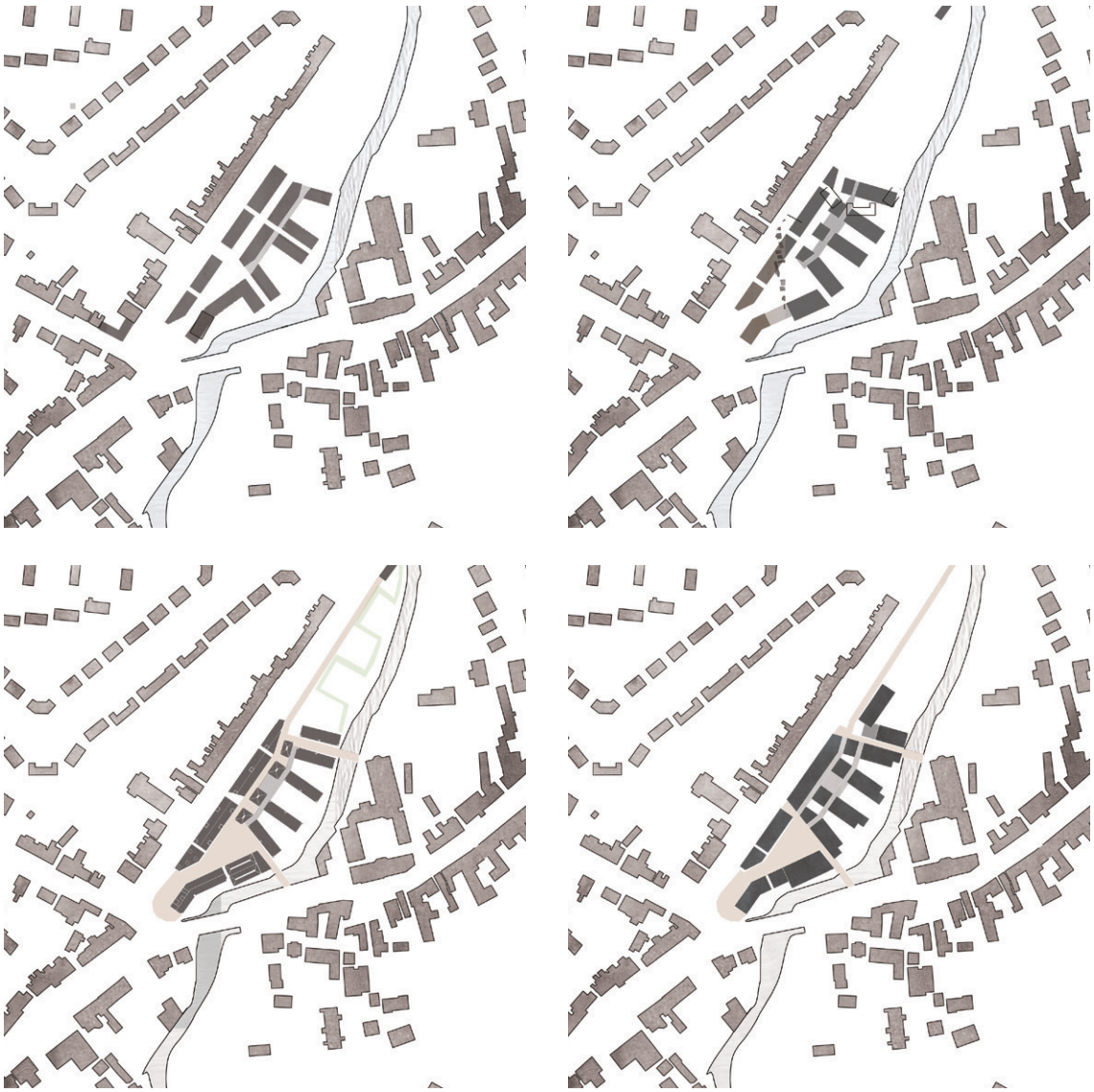


Fig 8.138. Studies of the volumetric grain of the design as it evolved. The grain becomes tighter with a greater variety of scales of ways. The bounded square- the maim public courtyard- becomes more enclosed and increasingly a focus for public functions, such as the cafe, sports hall, studios and community rooms. East west ways become stronger as they are emphasised over other connections. The scale of ways become tighter knit.

The grain of the proposal to the south and the two main public spaces could be further developed. Critique of the craft square suggested that its scale was small and that the turn of the café along the river edge was compromising views to the site from Mwrog Street, where a large blank façade faces the visitor (fig.8.135). In the peer review it was suggested that the café block is relocated to enclose the main public space and create a larger gateway square to the south. From the café the view to the Gaol tower and St Peter's Church could be framed rather than the view through the site from the street corner. This could increase the impact of the view as one enters the square and offers a more defined and contained space at the heart of the design.

Opportunities for inhabitation could be explored further; while the 'articulated classrooms' enable a range of activities from the individual to the small group and a complete class, this approach of exploring inhabitation at a small scale is lacking from the rest of the building. The places where it does happen need to be better described and illustrated. As has been previously described, the connection of the person to the town and landscape beyond from the building is an important aspect of emplacement that is currently underdeveloped. Peer review highlighted that this experience is as important as the view of the building; the visitor can then be considered as both a spectator and a participant at the same time. The building could therefore enable what Aldo Van Eyck terms *"built homecoming"*[10], where "*work is determined not by universal formal styles, technical or functional formula, or purely conceptual theories, but rather by the everyday lives and experiences of those who inhabit architecture."*[11] This is further explored in the design addendum.

-Consolidation and densification

The sparse development of the existing site offered the opportunity to consolidate the edge of the historic town and densify development on what was an obvious weakness in the town fabric. The site is one of several along the ring road and A494 with poor definition of the street edge and no sense of enclosure. The density of development has been led by the scale of ways and public spaces. The final form of the building has a grain and density that is more akin to the historic core than it is to the lower density estates on the periphery.

-Conglomerate ordering

The proposal is based on a relatively dense series of lanes, alleys, and courts with a larger public square. It perhaps has more in common with the grain of the historic town than the suburban housing to the north-west and extends that grain out across the interface between the historic

10 Robert MacCarter, 'Aldo Van Eyck' (New Haven: Yale University Press, 2015). p.233.
11 Robert MacCarter, ibid. p.231.

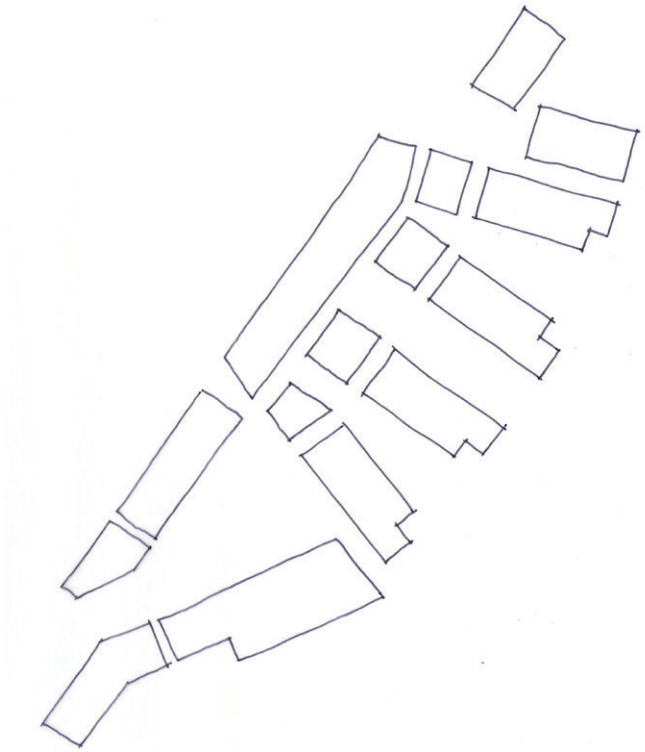


Fig 8.143. Constellation of building elements

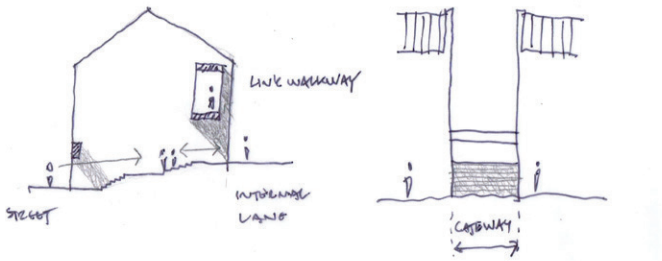


Fig 8.139. Snickets break into the building mass

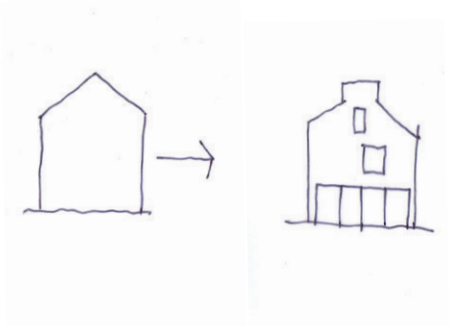


Fig 8.140. Simple form- articulated

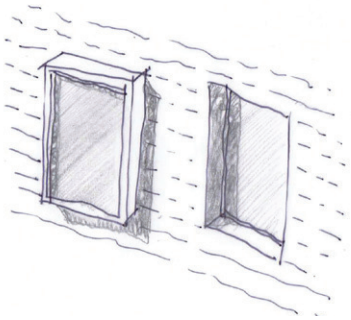


Fig 8.141. Projecting windows

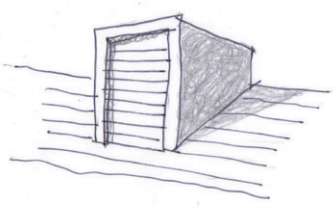


Fig 8.142. Active rooftop with wind chimneys for natural ventilation

and suburban towns. This offers the potential to define the edge to Park Street, consolidate the town and extend the dense historic town across the river. The building has a conglomerate order with spaces organised in close proximity, defined by the scale of ways. Light and view guide the visitor around the building. Shared spaces such as the main hall, IT suites and Learning Resource Centre are visible from the north-south lane, making navigation to these community spaces more legible.

The material language of a stone external face and a brick interior also represents a conglomerate character, where similar materials are used throughout. Once inside the building, one material dominates. Navigation around the building is through the varying scale of ways. Courtyards and yard ensure that circulation is daylit and that these points of reference are visible, aiding navigation.

-Constellation

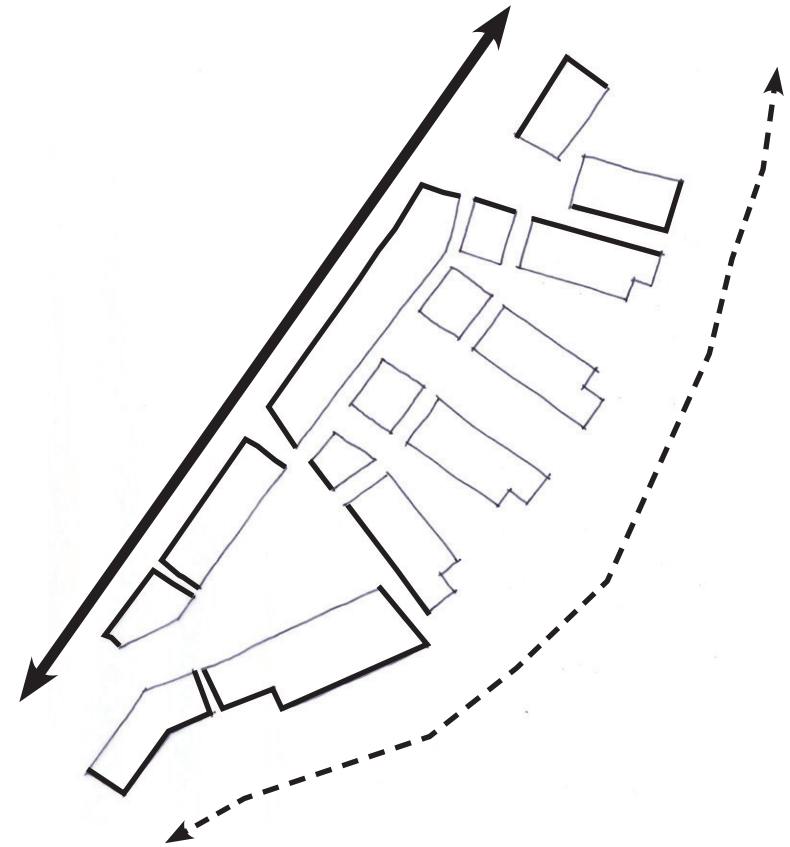
The design is fragmented into a constellation plan form (fig. 8.148) around the network of ways that thread across the site. Building forms are articulated with pitched roofs, while connecting ways predominantly have flat roofs, creating a visible hierarchy of rooms and circulation. The school for example is organised around a secure lane that connects to linear classroom blocks and school 'houses', two storey support and specialist teaching blocks, located alongside the north-south lane. At its centre is a hall, use for assembly, dining and group work. The constellation is inflected to frame routes and entrances.

Form

-Abstracted form

While in Ludlow abstraction considered primarily volume, in Ruthin the abstraction of form extended into the exploration of details (figs. 8.144-8.147). The mapping revealed the importance of the articulated roof. This was recognised in the variety of chimneys of varying heights and degrees of decoration and the number of dormer windows. These elements have been abstracted into ventilation chimneys and roof windows that provide articulation to otherwise simple pitched roof forms. The craft gallery is particularly notable in this aspect, where the famous 'eyes of Ruthin' have been abstracted into a pattern of pop up windows that provide natural daylight to the gallery. This both evokes the feeling of the eyes of Ruthin and provides further articulation to the gateway to the historic town.

This strategy of abstracting detailed elements found in the town could extend further than has



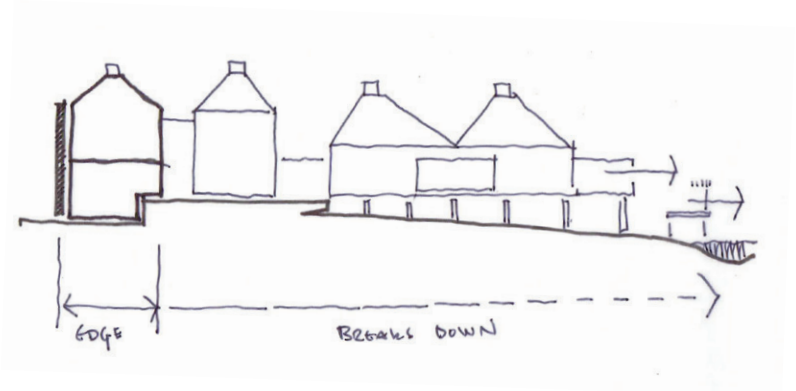


Fig 8.144. The site has two faces of different character, a strong street edge and a more open and fragmented river edge

currently been proposed. In early studies, the form of the building was adjusted and altered to respond to ways and entrances by folding the façade at ground floor. This has been lost in the final proposal and could be introduced to create activity along the street edge and add places for inhabitation.

-Familiar forms

The form of the building abstracts familiar forms found in the town. Analysis showed the predominance of pitched roofs forms, simple volumes and strong street frontages. These forms are continued and abstracted in the proposal.

The form of the buildings takes precedent from the pitched roof buildings found in the town for the main linear blocks of the building and the more variable forms of the buildings behind the street in the depths of burgage plots to inform the roofscape to the school houses. Here, classrooms each have individual sculpted roofs, clearly identifying the location of each classroom space. These forms are abstracted and shifted depending on their location and orientation.

-Quirk

Quirks in the design are adapted from the site as found and consideration of passages, alleys, routes through the complex and the influence of ways. The roof form of the classrooms is also manipulated depending on view and light, giving each school house a distinct roof form.

-Janus face

The building is considered janus faced, with one urban edge to Park Street, a civic space (the 'craft square') to the south, a river edge to the east and a series of green spaces to the north (fig. 8.149). The civic and street edges are more formal, with regular openings and a façade divided into repetitive bays. The buildings reduce in scale toward the river and the linear pitched roof buildings lining the road break into smaller pavilions connected by covered walkways. One aslpect of janus face not considered in detail but perhaps useful to explore is how a janus faced building can frame, connect and exclude relationships with the wider context. This could help to reinforce the sense of place and connect those using the building to the wider town.

The street elevations vary to reflect the functions within; the craft units have shopfront glazing, the classroom spaces have regularly spaced punched windows and the hall has full height glazing. The strategy for this needs further work, as the full height glazing does not reflect the

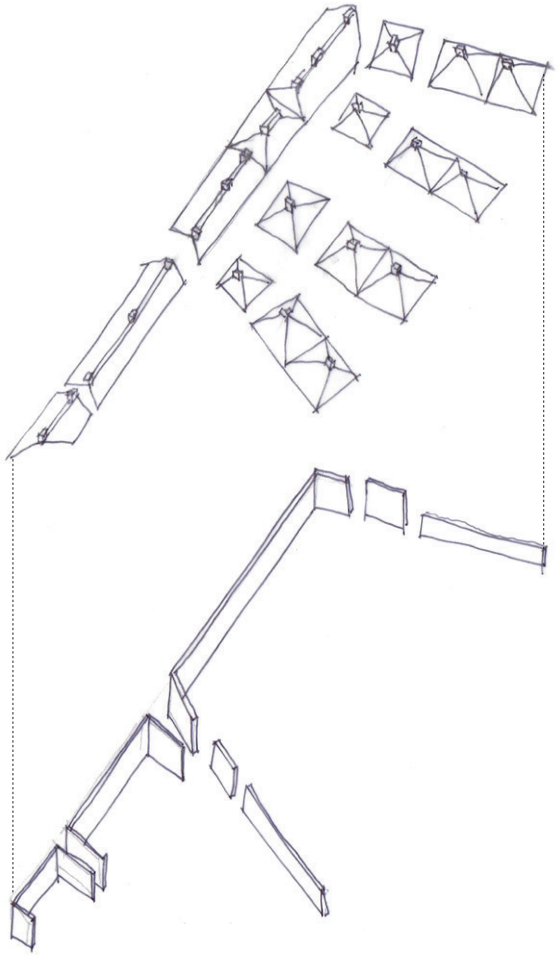


Fig 8.145. A stone wall defines hard edges to the site and lines the cross cutting ways. The street edge has a simple linear pitched roof with ventilation chimneys, while the school 'houses' have individual roofs expressing each classroom individually.

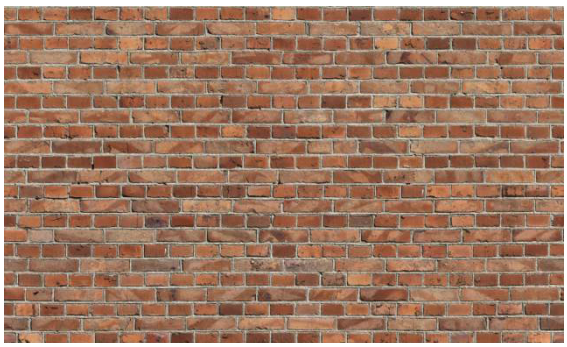


Fig 8.146. Stone cladding is used for the hard edges of the building, while a more textural red brick is used for the more domestic school.

domestic bays of the rest of the façade. Further studies are needed to refine this area.

Tectonic

-Material solidity

The material use responds to the different edge conditions and uses of the the buildings. The fabric of the town has a mixed appearance, with a mix of brick, stone, stucco and render, and half-timbered buildings. Within the existing town, stone is used to for important or public buildings, such as the gaol, town hall, castle and churches. To evoke this, the street edge was defined with a stone clad wall that provides a strong perimeter, encloses the street and replicates the repetitive rhythm of the domestic buildings opposite. In contrast, on the inside the buildings are brick clad, with a more irregular and punched arrangement of windows that contrasts with the formality of the civic community buildings.

The building as designed has two main tectonic elements: an outer stone wall lining the street edge, seen as a solid mass wall with punched openings, and an inner brick fabric that is revealed inside (fig. 8.150). This aimed to draw on the use of stone for public buildings in the town and the use of brick for more domestic scale buildings (fig. 8.151). By using materials drawn from the context, it was hoped to strengthen the link to place and suggest continuity; by combining these materials with reduced and refined detailing, the proposal aimed to create a contemporary architecture that mediates between past and present. However, the material strategy and the depth of understanding of the materials and construction were questioned at peer review. In particular, the reasoning for stone to the street façade and brick within the building was highlighted as a concern. Although stone is frequently used for public buildings in the town, here it is not used decoratively and does not suggest a material drawn from the place. The location of the materials was also questioned, as the red of Ruthin was discussed as the material that would embed the building in its place, as at the Craft Centre where tilt up red concrete panels are used for cladding. As in Ludlow, this remains a weakness of the design and an area that needs further exploration to be successful. This will be expanded on in the design addendum.

-Presence

The scale and material of the community buildings, flanking a public square, aim to have a sense of presence and evoke a sense of civic architecture. The aim is for these buildings to be recognisably civic and to sit within the architecture of other public buildings in the town, such as the town hall and covered market. These have a weight and mass that suggests a sense of grandeur and importance that recent additions such as the council offices do not match. Detailing is reduce, with gutters concealed behind a parapet and minimal detailing at the

sill and head of the wondow. In contrast, the school aims for a lesser presence that evokes domesticity and homeliness. Its greater fragmentation and variation suggests affinity with the medieval fabric of the town rather than its public buildings. Peer review questioned the presence of the building as it has been designed with claddings rather than having tectonic integrity. While cladding offers a cost effective solution that may be suited to a school building, it does not have a truthfulness that supports the sense of presence. The construction and material strategy were also not illustrated effectively. This will be addressed further in the design addendum.

-Continuity/mediation

The brief for the site suggests an alternative to edge development by returning the school to the heart of the community. This has both a sense of continuity with traditional modes of school building, but with the increasing move of education out of town centres is also a transformational proposal. Combining the school with community facilities and well connected public spaces has the potential to create a hub for the community and connect the historic core to the suburban housing on its periphery.

The design has a formal continuity with its context that remains polite and respectful of the existing condition. While the premise and brief has the potential to be transformative, the architectural language could further build on this and create a more critical relationship with its surroundings. The strong wall to the street has potential to be inhabited and act as a mediator between the town and the design; this could be explored further in the design addendum.

-Strategy & detail

The approach of strategy and detail was used to move between the scale of the masterplan and the specific areas of the building. Working between the masterplan and the detail of the spaces at 1:20 could have helped to further consider the inhabitant in the proposal. When inhabitation was explored, it was not at a large enough scale.

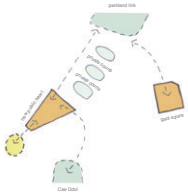
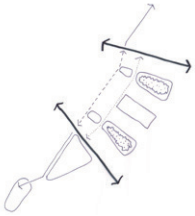
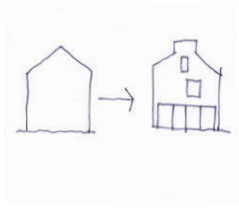
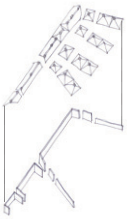
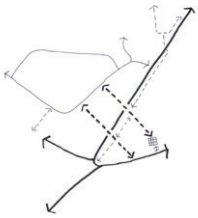
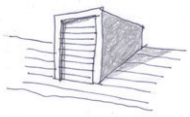
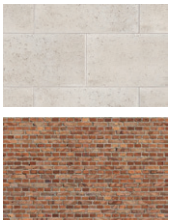
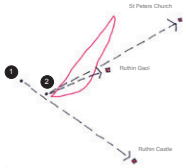
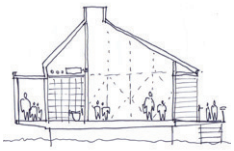
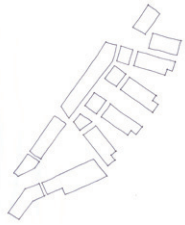
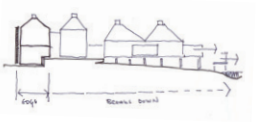
LANDSCAPE	MORPHOLOGY	SPATIAL CHARACTER	FORM	TECTONIC
Centre 	**Ways** 	**Volumetric grain**	**Abstracted form** 	**Material solidity** 
Edge/boundary	**Connections** 	**Consolidation & densification**	**Familiar forms** 	**Presence** 
View and vista 	**Ground notations**	**Conglomerate ordering**	**"Quirk"** 	**Continuity/Mediation**
	As found	**Constellation** 	**Janus face** 	**Strategy & detail**

Fig 8.147. The final design analysed through the operational framework

8.3.12 Summary

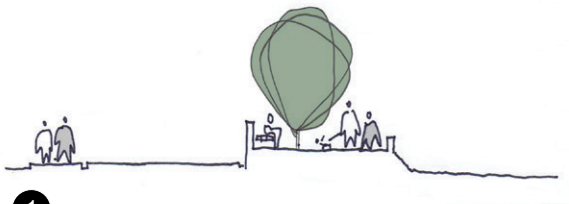
The final design as presented at peer review as described and analysed through the operational framework (fig. 8.152). Reflection on the process and the omissions from the project suggested a number of additional studies to be carried and areas of further development to be addressed if the project were progressed further. These include:

- Inhabitation of the buildings and the sense of place created
- The sense of being in Ruthin from within the building
- The removal of the viewing corridor and the relocation of the cafe to take advantage of views to St Peter's Church and the Gaol in one direction and town in the other
- Further study of the east-west connections across the site and what these might be like as ways
- Exploration of the tectonic strategy, material solidity and sense of presence

Addressing these omissions will strengthen the sense of place and help to embed the building in its context. The following pages present a number of sketches addressing these themes.

8.3.13 Design addendum

Fig 8.148. Composite drawing showing key moments of inhabitation alongside a revised plan



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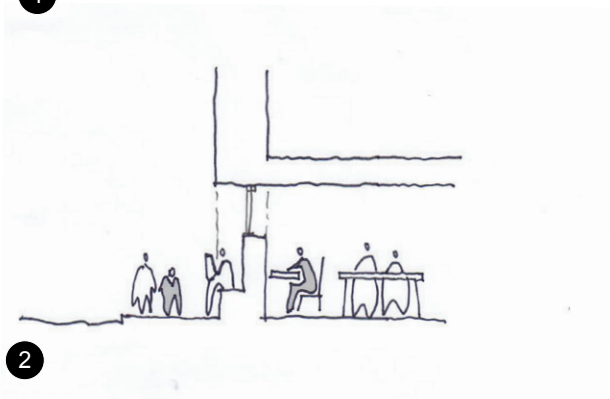

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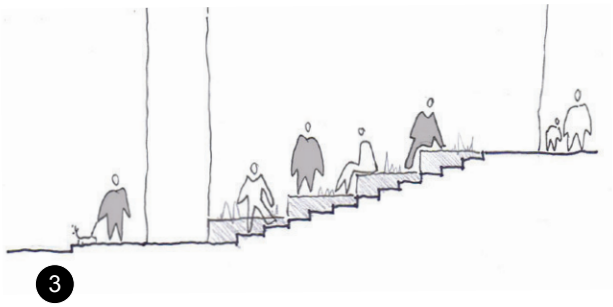

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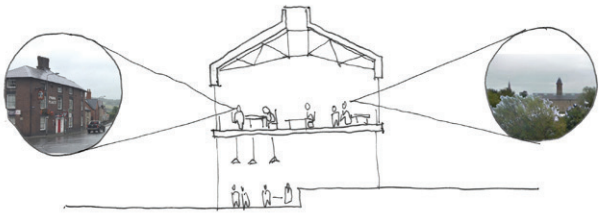

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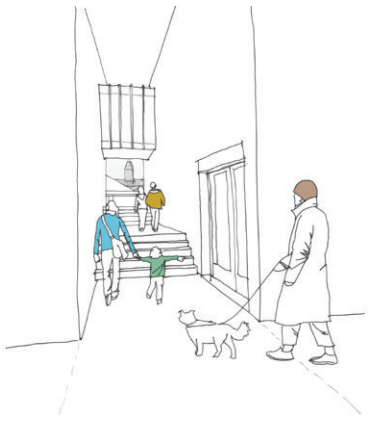

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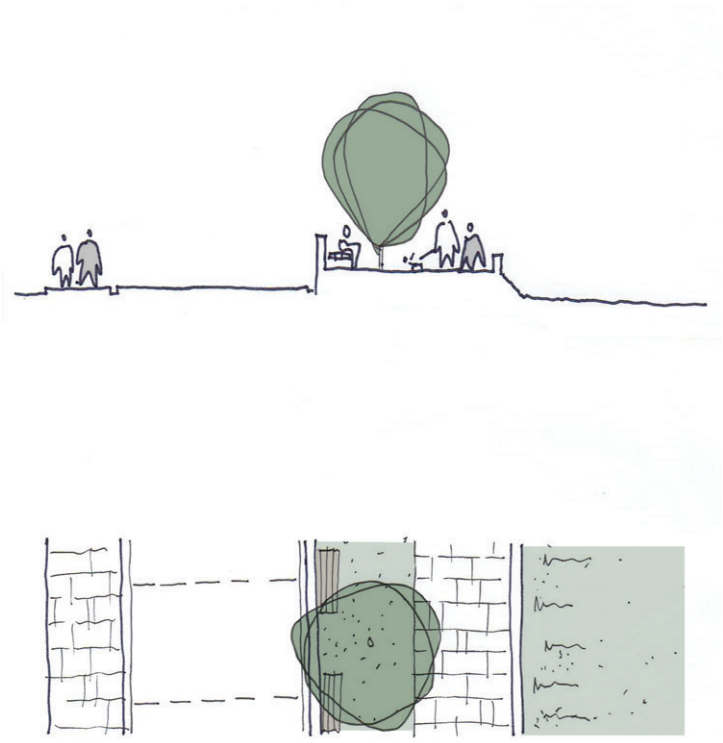


Fig 8.149. Bundway running north-south with a raised path and parking bays to the street

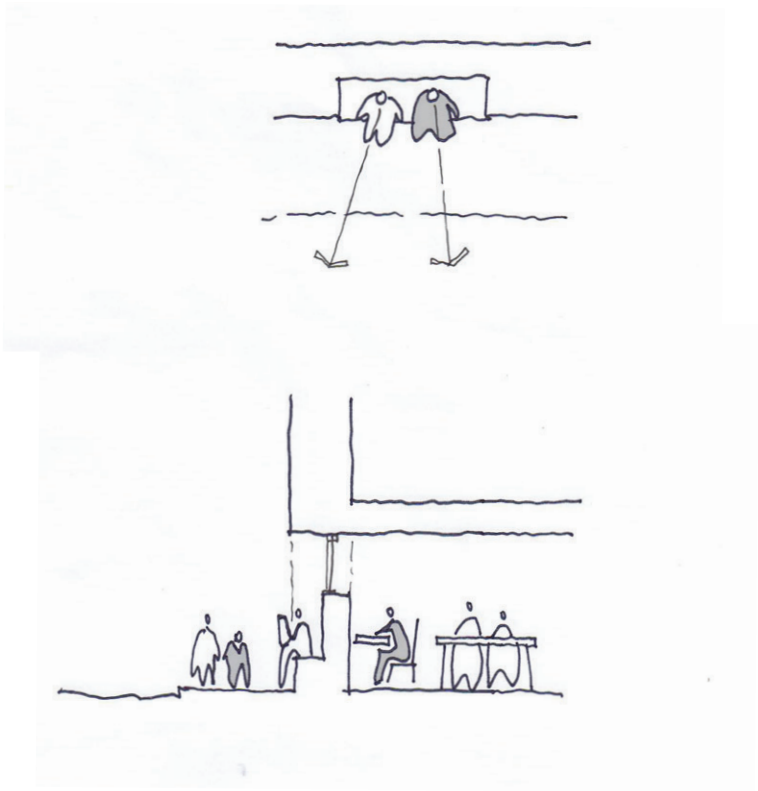
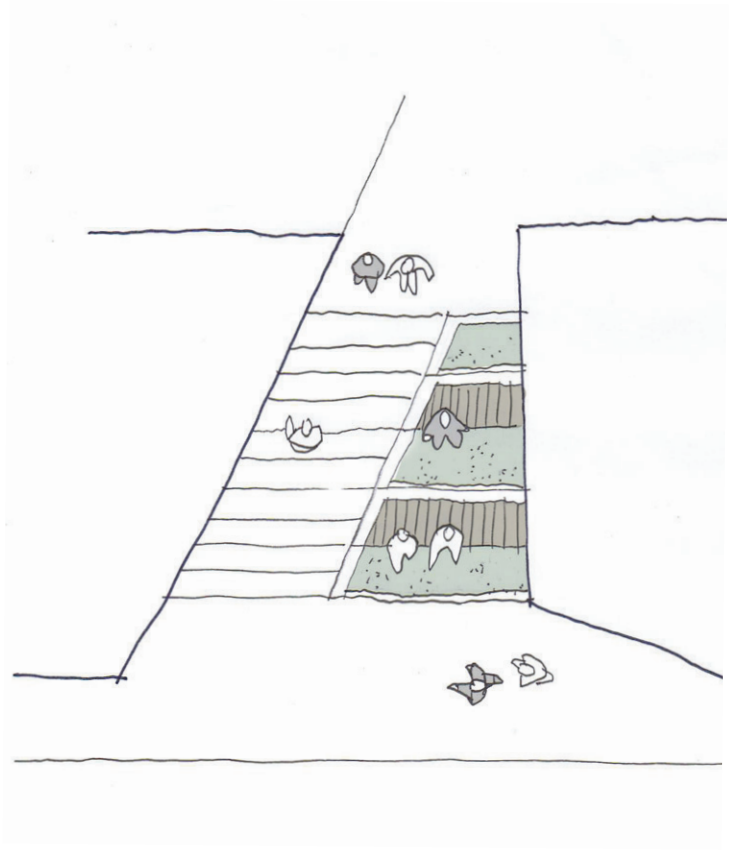


Fig 8.150. Inhabitation of the street edge; niches cut into the learning resource centre facade



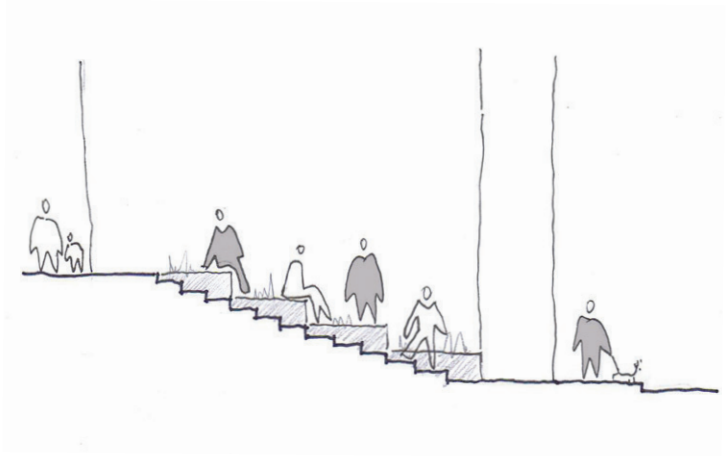


Fig 8.151. The lane cuts through the street edge block; steps are manipulated to create places to sit and planting

1

Fig 8.152. The bridge link from Clwyd Street.

2

Fig 8.153. The lane from the bridge link to the bounded square.

3

Fig 8.154. The lane from the bounded square to Park Street, where the lane cut through to the housing estate.

Fig 8.155. The bounded square, looking toward the cafe.

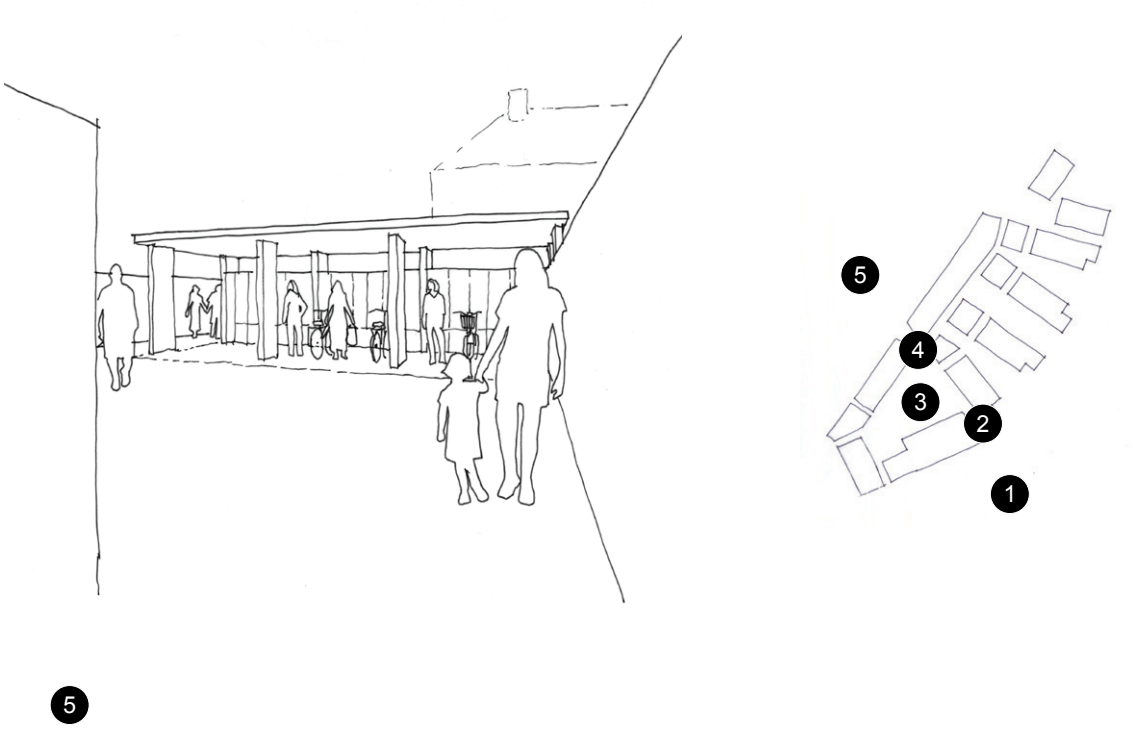


Fig 8.156. The lane cutting through to the housing estate at the north west of the site.

Fig 8.157. Cafe with view across the square to the gaol/church towers

Fig 8.158. The bounded square: space and material.

Fig 8.159. The bounded square as an evening cinema

Fig 8.160. The bounded square as daytime market

1

Fig 8.161. The view between the classroom blocks to the river and Gaol wall square

2

Fig 8.162. The articulated classroom edge

Fig 8.163. Classrooms have views out to the river edge

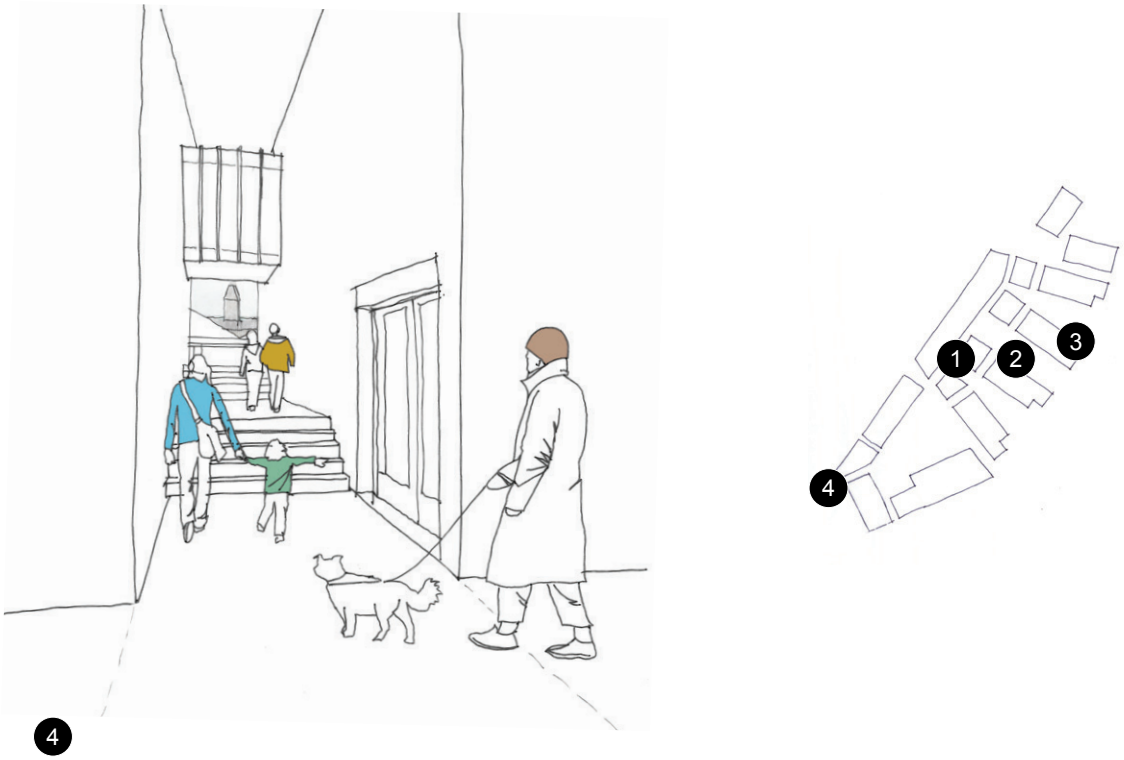


Fig 8.164. The view from the craft square through to the bounded square, with the vista to the church and Gaol revealed on release into the square

Fig 8.165. The view to the south west corner of the site with the cafe turned through ninety degrees to enclose the bounded square. Option 1: a continuous block wrapping the corer of the site with an alley cut through to the square.

Fig 8.166. Option 2: The cafe block is separated and has a sculpted roof that lines through with the sports hall roof pitch and has a shallow pitch to the alley.

Fig 8.167. Option 3: The facade is a gable expressing an asymmetric roof. An abstract form, but has it does not relate as successfully to the surrounding building forms (community rooms and sports hall)

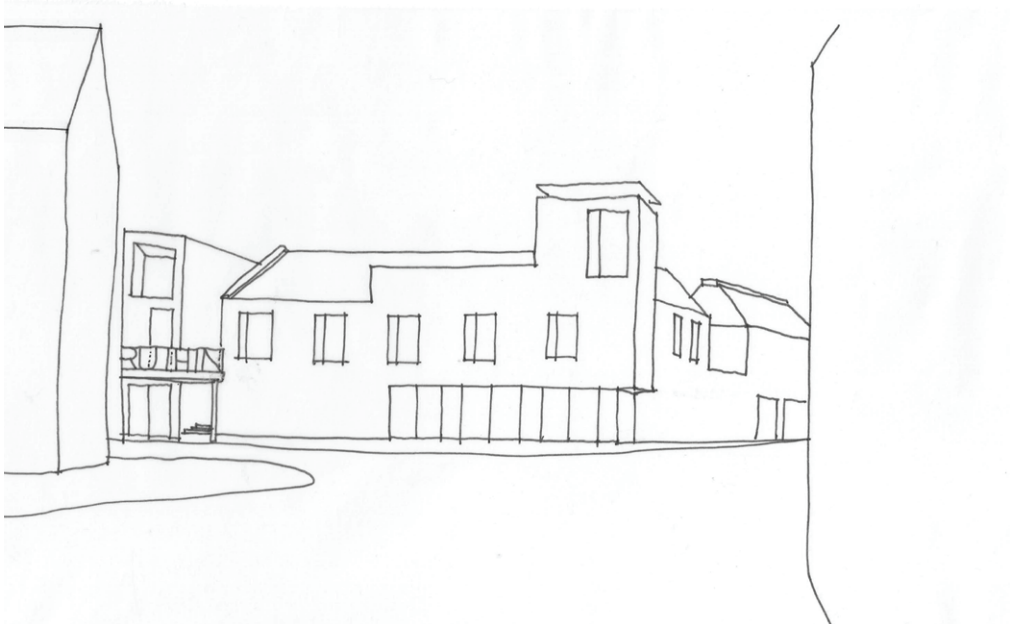


Fig 8.168. Preferred option: The building massing steps up to the gateway corner, expressing a sense of arrival and marking the corner of the site.

Fig 8.169. Analysis of rhythm and openings, north west facade

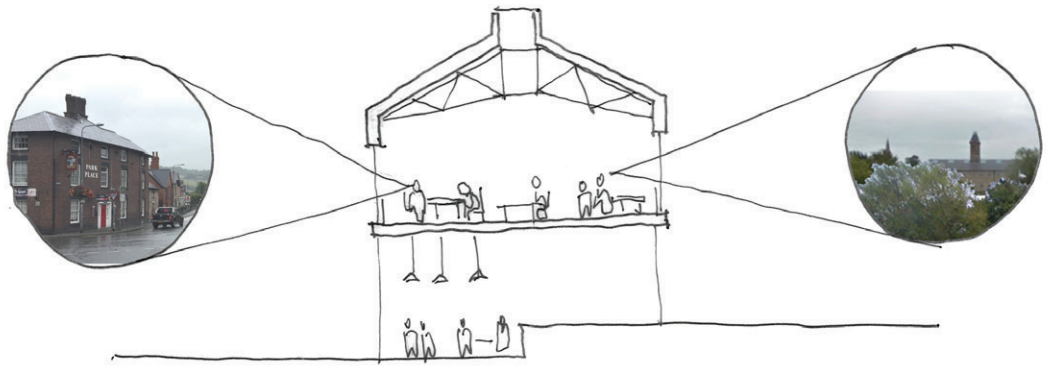


Fig 8.170. The cafe with views to the town and the gaol and church spires

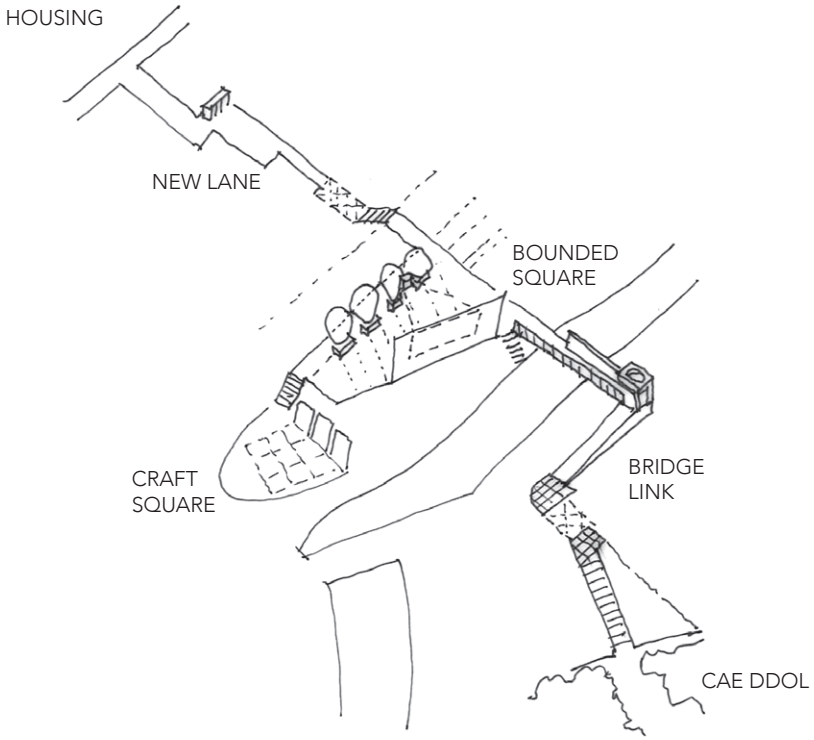


Fig 8.171. The cafe has views to the town and to the Gaol and St Peter's Church towers

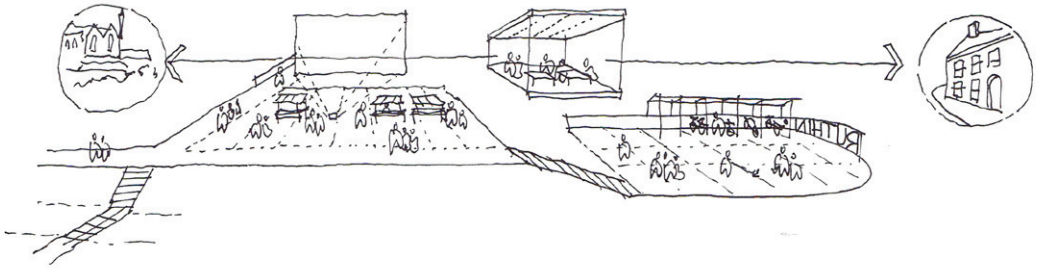


Fig 8.172. Conceptual drawing of the two public spaces in the building, the bounded square and the craft square

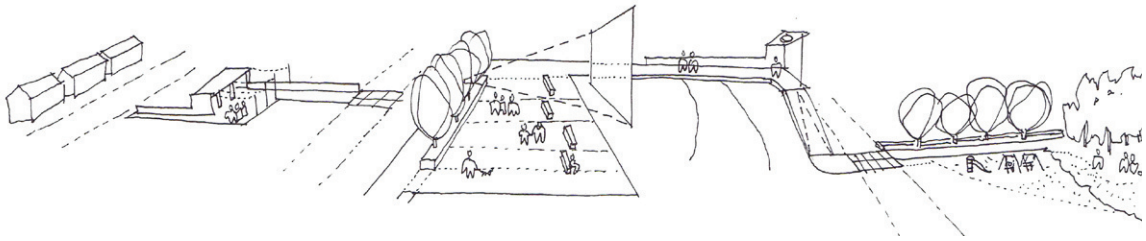
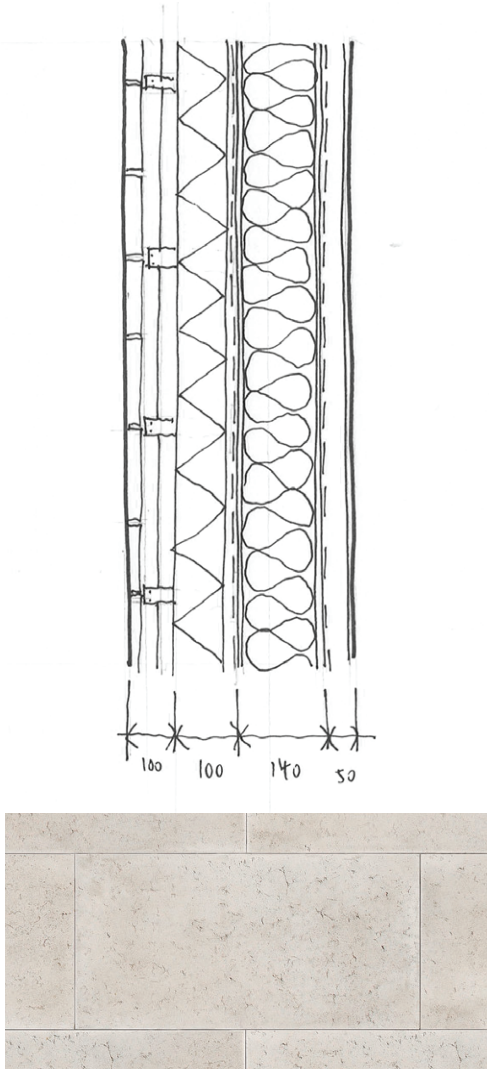


Fig 8.173. Conceptual drawing of the east-west connection through the bounded square from the peripheral housing to Cae Ddol park and the historic core

Construction at final review

Stone cladding:

- Historic public/civic buildings in Ruthin are limestone
- Stone cladding echoes this but reduces cost of stone facade
- Lack of authenticity any sense of presence or solidity is false
- Underlying structure may need to be heavier duty
- Not abstracted



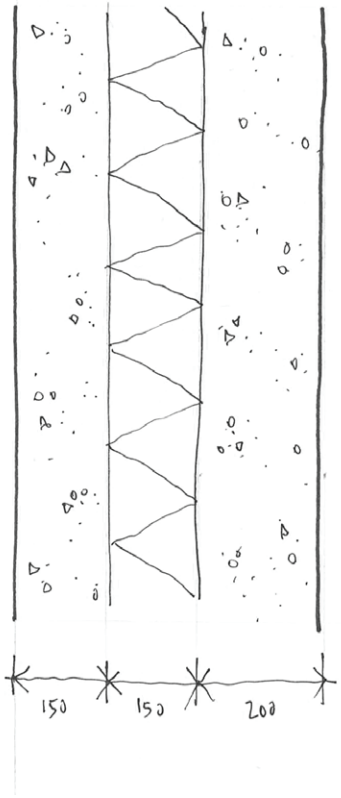
Limestone cladding

Fig 8.174. Construction- “the wall”

Alternative construction

In situ concrete:

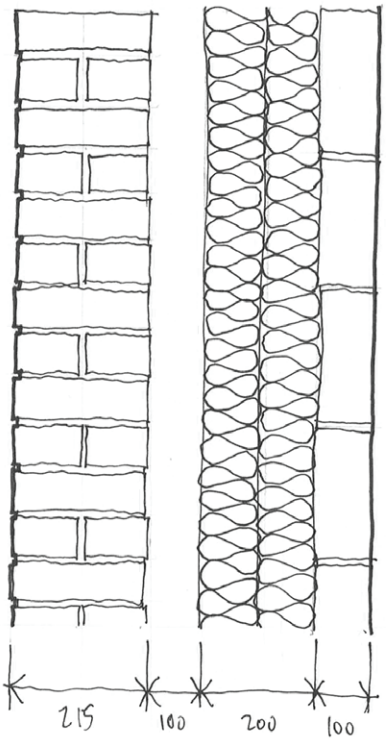
- Has a solidity and authenticity that cladding does not
- Coloured concrete could evoke 'Ruthin Red'
- Concrete is only used in the town for the Craft Centre
- Thickness increases, perhaps allowing wall to be inhabited
- More abstracted than a clad wall
- Cost could be more expensive?
- Environmental credentials? Recycled aggregates could ease this.



Red concrete (precast panel shown)

Masonry diaphragm wall:

- Continuity of materials with surroundings
- Colour choice can evoke 'Ruthin Red' or a grey brick could match Ruthin's civic buildings
- Thickness increases, allowing wall to be inhabited in depth
- Material solidity and authenticity
- Cost- would be expensive
- Perhaps too traditional and not abstracting the material palette

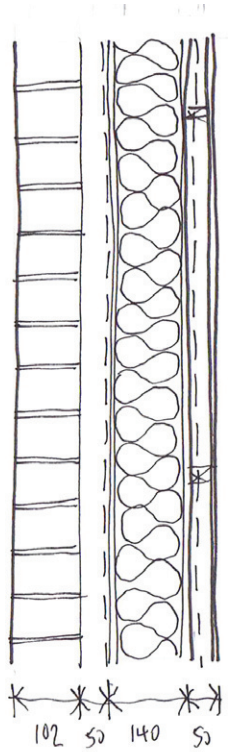


Red brick

Construction at review

Brick cladding:

- Brick is one of several common materials in Ruthin
- Evoke 'Ruthin Red'
- A sense of solidity and presence- but atectonic
- Cladding should be different to the wall wrapping the site
- Not abstracted

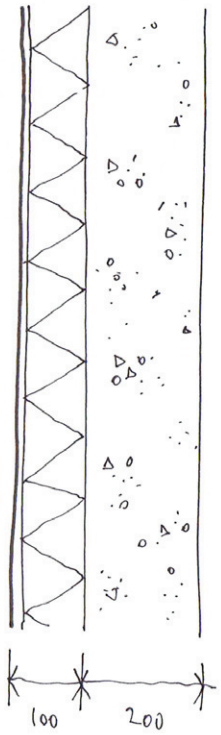


Red brick

Alternative construction

Rendered finish, concrete structure:

- Has a solidity and authenticity that cladding does not
- Not concrete clad so to contrast with wrap wall (could be done with colour/texture?)
- Has potential to create simple geometric shapes with a single material finish
- Concrete could be exposed internally (or lined where necessary)

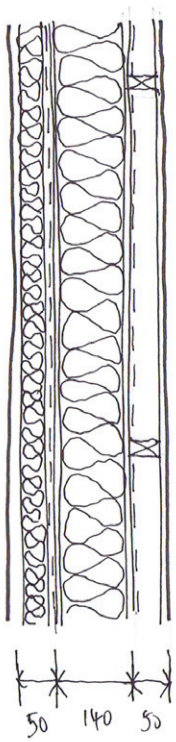


Rough cast render

Fig 8.175. Construction- classrooms

Rendered timber frame:

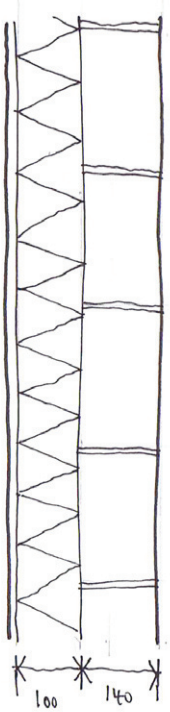
- Lacks authenticity and solidity but could create strong forms- CLT could have greater presence?
- Cost effective
- Multilayered construction
- Low embodied carbon
- Has potential to create simple geometric shapes with a single material finish



Rough cast render

Rendered blockwork:

- Has a solidity to the construction
- Has potential to create simple geometric shapes with a single material finish
- Cost effective
- Blockwork could be painted and exposed (lined where necessary)
- Perhaps too traditional and not abstracting the material palette



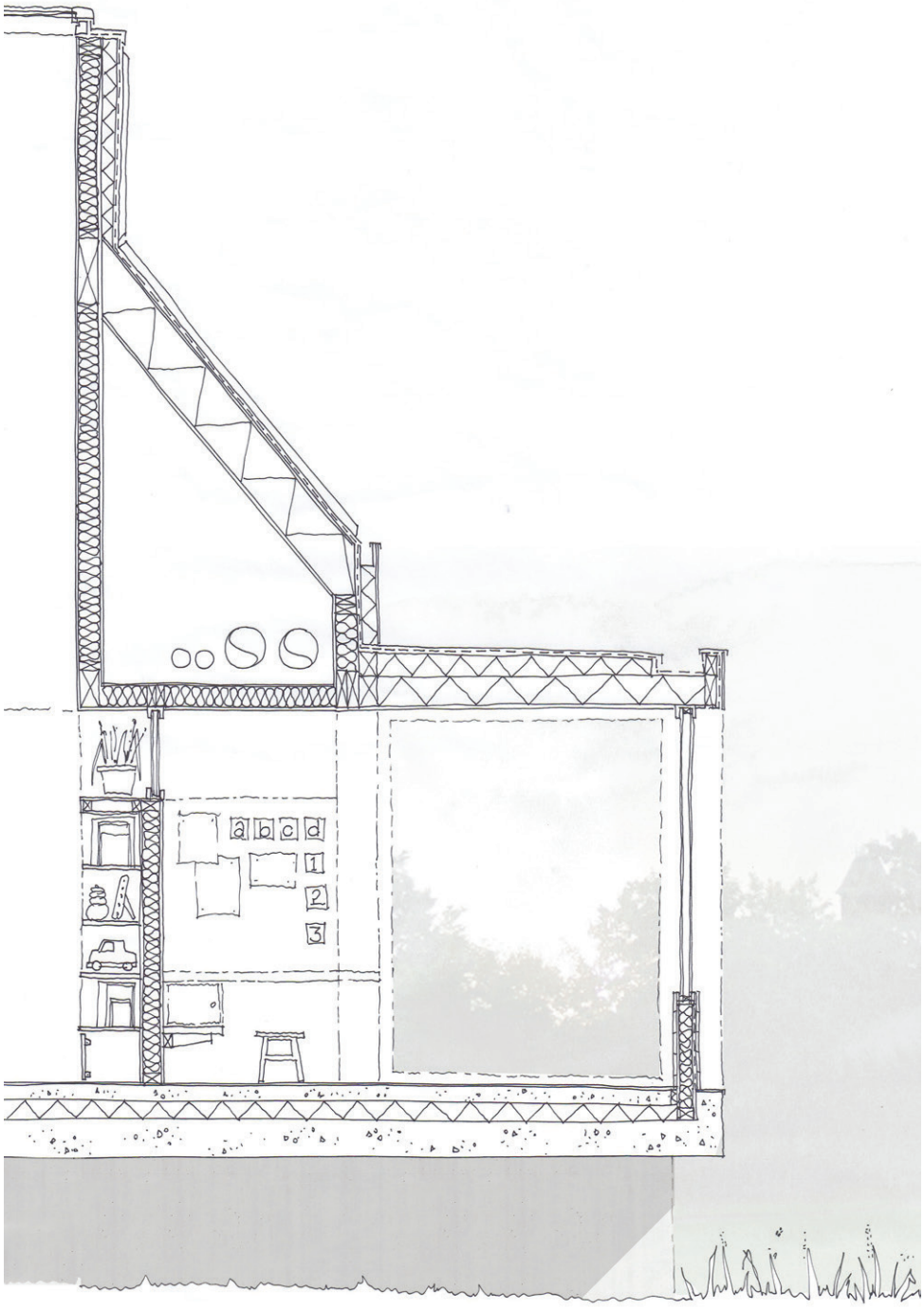


Fig 8.176. The classroom- a timber frame supported on a concrete plinth raised to bund level. The threshold between classroom and corridor is inhabited and personalised with work spaces, cabinets, display space and seating.

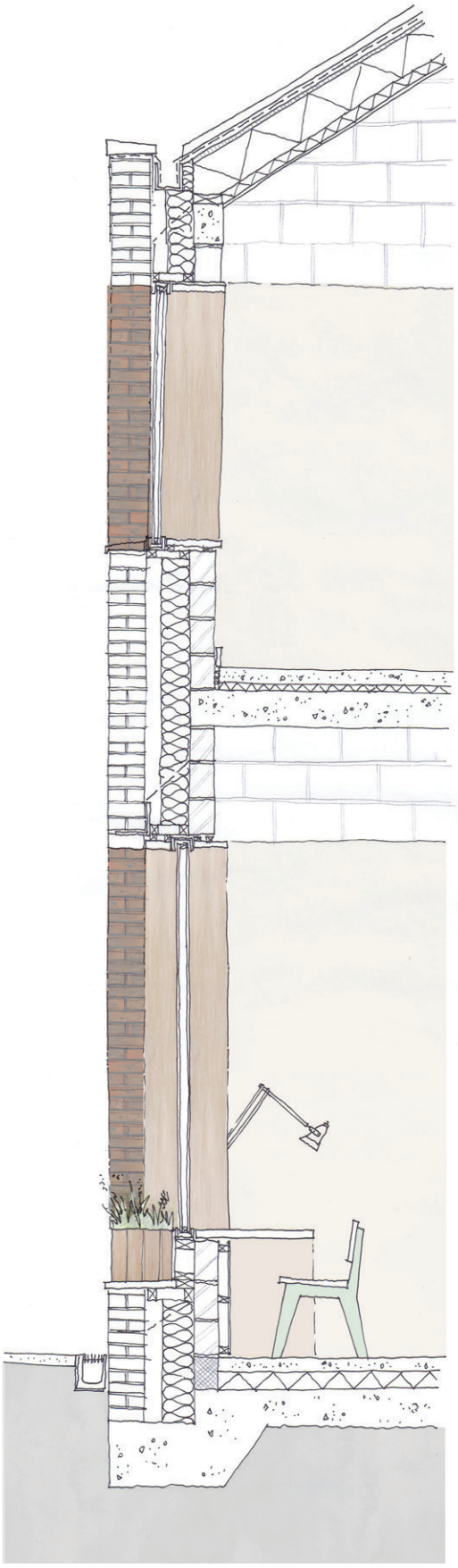


Fig 8.177. The 'wall' between a craft studio and the street. The depth of the wall allows the window to be recessed and benches and planters created Internally a built in desk creates a relationship with the town.

8.4 Findings

This section describes the findings of the Ruthin design study alongside the addendum to the project. The addendum presents a series of sketches that further explore the outcomes of the peer review and address the feedback received. It suggests a series of next steps that could be explored if the project were to be taken further. The findings will reflect on the design process and the design itself before revisiting the operational framework.

8.4.1 Design process and tools

The design study tested an integrated design process where settlement level analysis and project specific elements of the operational framework were combined. The need for a more thorough fieldwork study was identified in the Ludlow design study. The aim of this is to encourage working at strategic and detailed level and to integrate the mapping process as a design tool rather than a separate analytical phase of a project, thereby considering the area of influence and affect of the context on the design proposal and vice versa. This was successful; the design process returned to broad scale mapping as gaps in knowledge were identified. At each stage of peer review additional stages of mapping were explored.

The integrated process aims to reveal sites for design proposals through mapping. This is an approach that may not be applicable to all places and while it may be effective in strengthening and reinforcing the town fabric could encounter problems with land ownership. The approach is an alternative to the traditional model of linear practice, where a site is identified by its owner who approaches an architect to design a building on that site. Instead, the approach through the framework and mapping process is based on careful consideration of the whole town to highlight sites through design. This is contrary to the typical separation of developer, planner, architect and policy maker. Monte Carasso and other examples such as Temple Bar in Dublin suggest that this model is achievable, but requires the long-term support of a community and politicians.

8.4.2 Design proposal

The critique of the Ludlow design studies highlighted the reliance on the visual and scenographic in the design proposals. While effective in creating proposals that respond to their place, they remained neo-vernacular and contextual in design resolution. In Ruthin, the aim was to create a more transformative project that was a critique of the status quo with a clear response to need and brief and a contemporary architectural form and language.

The project brief developed was a critique of proposals by the Council to move community schools out of the town to a peripheral site. By developing a brief for a community school with community facilities, the project suggests an alternative to the status quo and has potential to transform the nature of the town centre. Locating the school on the interface of the historic town and the suburban housing areas beyond intends to integrate and connect these two areas, reinforcing the town fabric.

Perhaps the most important aspect of the framework to achieve this has been exploration of connections and ways. In Ruthin, the wider connections were considered and areas beyond the site 'borrowed' as foregrounds for and visual extensions to the proposal. New connections have been carved through the existing fabric to create safe pedestrian routes linking the historic core and suburban housing. Extending the proposal beyond the site in this way has similarities to Snozzi's approach of considering the city when designing a house and maximising the wider impact of a project. This has been more successfully achieved in ruthin than in Ludlow.

As with the Ludlow projects, the Ruthin design study is stronger on views *of* the scheme itself rather than *off* it. The key views illustrated for the final design review explored the appearance of the new building from the surroundings, but did not consider views to the church spire, the gaol, the river or the wider town. The addendum addresses this in more detail and attempts to create an awareness of the location of the design in its place through framed views. This two-way relationship makes the person a spectator and a participant in the place at the same time- not only observing the design proposal but also experiencing it and understanding their place in Ruthin.

Peer review further suggested that the design project is not complete until it is inhabited. This considers place to be more than contextualism and suggests an intimate relationship between people, architecture and place. This goes beyond the visual potential of picturesque townscape and explores phenomenological aspects of place that were absent in the Ludlow designs. This is a key finding that is discussed further in the following section.

Another aspect considered in Ruthin is the potential for environmental design through the articulated roofscape. The simple form is manipulated to enable natural ventilation through chimneys and vents at the apex of the roof. This introduces a second aspect related to body and experience, which is the provision of comfortable environments through environmental design principles.

The project was developed through two-dimensional drawings along with a 3d computer model. View and vista were important drivers for the project due to the wish to make the form and mass of the building sit comfortably within the context. Both distant and near views were

used as a basis for development, in a similar approach to Cullen's serial vision.

The drawings presented with the design proposal could be further refined to better reflect the operational framework. The final drawings are similar to those that would be prepared in practice, whereas there may more analytical drawings that better explain the design proposal. In the postscript alternative drawings have been shown that address this further.

As with the Ludlow design study, aspects of the design derived from the local context such as proximity and ways contradict some aspects of the Building Regulations. While the location limits the impact of proximity on surrounding buildings, a more major concern is one of fire access; as the building is raised and along the river edge, there is limited fire tender access to 50% of the perimeter of the building. This highlights the potential contradiction between regulations and the desire for design at the scale of the inhabitant.

8.4.3 Revisiting the operational framework

The operational framework was amended following the Ludlow design study and retested in Ruthin. The framework has been used both as a design tool and to evaluate the design proposal; the design is revealed through the framework in a reflective process of design as Schön suggests. Returning to the operational framework to evaluate the project encourages the designer to iterate on each theme, embedding the framework in the design process.

As described above, peer review identified experiential and phenomenological placemaking as a significant omission from the operational framework and an area that needed further consideration. This was addressed through a design addendum that investigated where moments of inhabitation and the experience of being in Ruthin could be created. In this section, the literature of phenomenological place is revisited to inform the final iteration of the operational framework. From the importance of belonging and meaning highlighted in phenomenological theory, practical steps in facilitating inhabitation are described.

Norburg Schulz suggests meaning is culturally embedded and extends beyond familiarly with local landmarks to a deeper knowledge of the experience of place, its rhythms, rituals and people.[12] Orla Murphy similarly describes how architecture happens where people meet place, at the junction at which the messy contingency of everyday life informs and shapes the physical environment. [13] Till terms this the '*thick space of occupation*' and suggests that architecture

12 See for instance Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (New York: Rizzoli, 1980) and Christian Norberg-Schulz, *Architecture - Meaning and Place: Selected Essays* (New York: Electa/Rizzoli, 1988)
13 Orla Murphy, *Town* (Westport: Orla Murphy, 2012) p.10.

needs to be:

> *"…a setting that allows diverse temporal conditions to coexist. Not just the event, but the potential for the event being overlaid on a regular ritual. Not just a routine that responds to a cyclic rhythm (of life, of seasons, of the world) but one that allows these to unfold against the linear aspects (of decay, of change)".* [14]

An interest in the social potential of architecture can be seen in the work of the Smithsons and their Team 10 colleagues Herman Hertzberger, Aldo Van Eyck and Giancarlo De Carlo. During the middle of the twentieth century, dissatisfaction with the direction of the modern movement led an increasing interest in the historic city and social planning. The Smithson's describe this as a move to *"create an architecture and a town planning which- through built form- can make meaningful the change, the growth, the flow, the vitality of community."*[15] Their approach placed the individual at the centre of the organisation of space, with a particular emphasis on scales from house to street to city to region. In contrast, Van Eyck and Hertzberger were influenced by phenomenology and sought an architecture that could satisfy man's emotional needs and reveal what it is to be in the world as a social being. This is an architecture in which the material and construction becomes secondary to the making of places, as Van Eyck describes:

> *"Space has no room, time not a moment for man. He is excluded. In order to "include" him – help in his homecoming – he must be gathered into their meaning. (Man is the subject as well as the object of architecture). Whatever space and time mean, place and occasion mean more. For space in the image of man is place, and time in the image of a man is occasion. Today space and what it should coincide with in order to become "space" – man at home with himself – are lost. Both search for the same place, but cannot find it. Provide that space, articulate the in between (sic). Is man able to penetrate to the material he organises into hard shape between one man and another, between what is here and what is there, between this and a following moment? Is he able to find the right place for the right occasion? No – so start with this: make a welcome of each door and a countenance of each window. Make of each place, a bunch of places of each house and each city, for a house is a tiny city, a city a huge house. Get closer to the shifting centre of human reality and build its counterform – for each man and all men, since they no longer do it themselves. Whoever attempts to solve the riddle a space in the abstract, will construct the outline of emptiness and call it space. Whoever attempts to meet man in the abstract will speak with his echo and call this dialogue. Man still breathes both in and out. When is architecture going to do the same?"*[16]

14 Jeremy Till, Architecture depends (Cambridge, Mass; London: MIT Press, 2009) p.95.
15 Alison and Peter Smithson, quoted in Adrian Forty, *Words and Buildings* (London: Thames & Hudson, 2004) p.110.
16 Aldo Van Eyck, quoted in Alison Smithson, *Team 10 Primer* (London: Studio Vista, 1968) p.101.

Fig 8.178. Montessori School, Delft by Herman Hertzberger. Moments offording inhabitation at the entrance to the school.

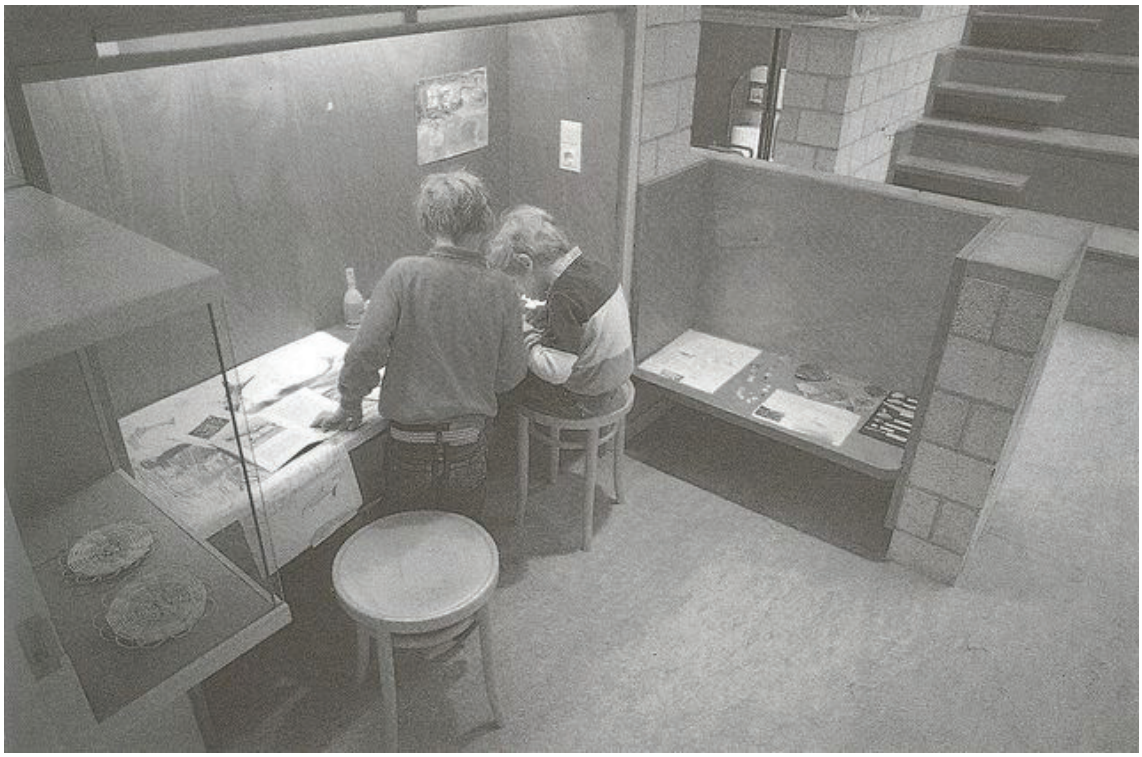


Fig 8.179. Montessori School, Delft by Herman Hertzberger. Break out spaces from the classroom can be inhabited in a variety of ways.

Van Eyck's manifesto argues for a place-specific attitude that prioitises experience of lived space. The challenge for the architect is to create moments that can be inhabited by people and that enables them to understand their place in the world. In designing buildings, Hertzberger searches out opportunities to enable social interaction through architectural moves:

> *"Every kind of step and ledge at a school entrance becomes a place to sit for the children, especially where there is an inviting column to offer protection and to lean against. Realising this generates form. Yet again we see that form generates itself, and that it is less a matter of inventing than of listening attentively to what men and objects want to be.*[17]

These 'moments' create opportunities for social interaction and experience of place (fig. 8.183). Their careful design has similarities to Gibson's notion of affordances, "*what the environment offers the animal, what it provides or furnishes, either for good or ill*" and a tool that makes visible the awareness that *"…the world and one's complementary relations to the world are not separable."*[18] Gibson suggests the physical surroundings can offer something of use to the person and a possibility for action. Hertzberger identifies a series of architectural opportunities to embed these moments or affordances in a design. In particular he highlights the importance of thresholds, where inside and outside, public and private, individual and collective are negotiated. In projects such as the Montessori School in Delft (fig. 8.184), the relationships between classrooms and corridors and between public and private at the main entrance to the school are carefully manipulated to afford moments of interaction, for example, creating a low brick wall that both defines the entrance threshold and act as seats for waiting parents and children.

Similarly, Sergison Bates describe the importance of layers and extended thresholds. With reference to the paintings of Pieter De Hooch (fig. 8.185), they suggest a number of elements that can be used to create an extended relationship between inside and out:

> *"These scenes describe the inhabited spaces and thresholds that witness our every day existence through elements that allow us to define degrees of connection- courtyards, passages, dates, doors, railings, steps, walls, rooms and windows. These elements enrich the city streets with layers of semi public spaces. Stupes, porches, lobbies, canopies, balconies, mediate between the public and private realm- they are at once private belonging to the façade of the house and at the same time they are part of the very fabric*

17 Herman Hertzberger, *Lessons for Students in Architecture* (Rotterdam: Uitgeverij 010, 1991) p.186.
18 Aaron Betsky, *The Evolving Landscape of Architectural Affordances*, (Washington DC: Architect Magazine, 2015) <http://www.architectmagazine.com/design/culture/the-evolving-landscape-of-architectural-affordances> [accessed 12 July 2016].

Fig 8.180. Pieter De Hooch, 'Cardplayers in a Sunlit Room': Layers and thresholds between the room and the public space beyond.

Fig 8.181. Casa Kalman, Luigi Snozzi: A pergola structure captures the view of the lake.

Fig 8.182. House in Flasch, Bearth Deplazes: Careful window placement frames the surrounding village.

Fig 8.183. Willimann Lotscher House, Bearth Deplazes: A hierarchy of window sizes culminates in a panoramic view across the landscape.

of the city. They define the edge, the character of the city, and determine the way we experience it. They offer a place to pause, to shelter; they allow passive surveillance and illumination at night. They are private gifts to the public city."[19]

These incidental moments create a sense of belonging and of being part of a wider urban place. As well as mediating public and private, thresholds create means of relating to the outside world; for example, views can be framed to reinforce the place of the building in the world. Constant reference to the place- for example the river edge, the Gaol wall and the spires of St Peter's church and the Gaol reinforce the sense of place and belonging.

'Borrowing' spaces and views around a site can further embed a project in its place; in the picturesque, the approach is termed appropriation, where *"what was outside of the park was made to feel part of the park."*[20] By connecting the inhabitant to their outside world their sense of place can be reinforced. In Snozzi's house projects there is a recurring approach to framing views, where the careful placement of a pergola structure frames the view of the landscape (fig. 8.186). A similarly careful consideration of view is evident in Swiss-German architecture. In Bearth & Deplazes's Williman Lotischer House, a hierarchy of windows culminates in a panoramic view of the landscape. (fig. 8.188) In the House in Flasch, careful placement of windows frames views out to the village as the stair is ascended (fig. 8.187). The largest window on the upper floors is found in the narrowest part of the building; the funnelling walls and ceiling focus the viewer's eye on the landscape.

As discussed in the Ludlow Design study, Stephen Owen identified the view of a place from the landscape as an important component of place;[21] these examples suggest the reciprocal relationship has a similar importance. Consideration of framing views and appropriating the wider context can be an effective tool to relate the person to their place and make the inhabitant aware of their place in the world. In the community school, areas of space around the site were appropriated to become public spaces, for example around the bridge connection and the cuts through to the housing estate, while other spaces captured the surroundings and framed them in panoramic glazing.

Creating opportunities for the everyday life of a place to take place is an ethical standpoint that opposes architecture as object and implies architecture as subject. It moves beyond the visual, from architecture as a stage set to an intimate relationship between people, place and

19 Jonathan Sergison and Stephen Bates, *Papers 3* (Lucerne: Quart, 2016) p.140.
20 John Maccarthur, *The picturesque: architecture, disgust and other irregularities* (London: Routledge,2007) p.179.
21 Stephen Owen, 'Classic English Hill Towns: Ways of Looking at the External Appearance of Settlements' Journal of Urban Design 12.1 (2007) pp. 93-116. (p.105).

MORPHOLOGY	GROUND	GRAIN	FORM & COMPOSITION	LANGUAGE	INHABITATION
Centre	Ways	Volumetric grain	Abstracted form	Material solidity	Moment/affordance
Edge/boundary	Connections	Consolidation & densification	Familiar forms	Presence	Threshold
View and vista	Ground notations	Conglomerate ordering	"Quirk"	Continuity/Mediation	Appropriation
	As found	Constellation	Janus face	Strategy & detail	

Fig 8.184. The final framework: Themes have been renamed to better reflect their content and simplify the terminology. Landscape becomes morphology; Morphology becomes ground; Spatial character becomes grain; form becomes form and composition; tectonic becomes language. Finally an additional themes is introduced to reflect inhabitation.

building- an architecture that is 'alive', where people linger and random encounters occur.[22] While the picturesque aspect of the building in its place as identified in the Ludlow Food Centre and developed in Ruthin remains important, the addition of the phenomenological aspect of belonging enables the building to be inhabited. The person moves beyond a spectator and becomes a participant in the architecture, discovering its deeper meaning, facilitating "*built homecoming.*"[23]

The design addendum highlights the experience of place and affordances made to enable inhabitation. The resulting design aims to reveal the sense of place both within and without the building. This suggests the potential for design through the framework to address phenomenological and social aspects of placemaking. Inhabitation should be considered the central theme at the core of the framework, as many of the other aspects support the creation of a specific atmosphere, which is then experienced by the person.

As highlighted above, peer review and the design addendum illustrated that inhabitation needs to be incorporated into the framework (fig. 8.189). From the literature discussed, three sections have been identified within this theme:

- Moment/affordance: Creating opportunities for social interaction
- Threshold: Extended boundaries as places of inhabitation and experience
- Appropriation: Experience of place in the world through framing and borrowing

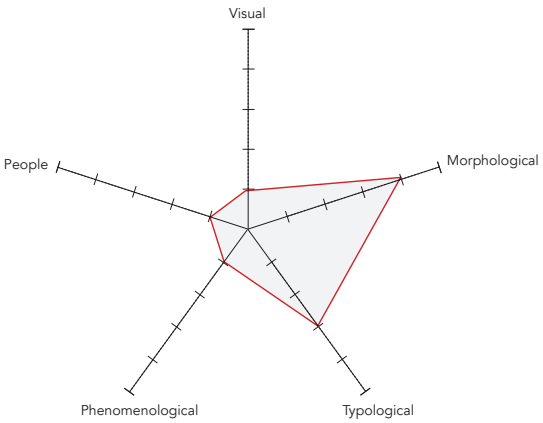
8.4.4 Summary

The design in Ruthin has led to a final reformulation of the operational framework. This final revision has two main focal points: The inclusion of inhabitation; and amendments to the terminology used for the themes to both simplify the language and to better reflect the content of the theme.

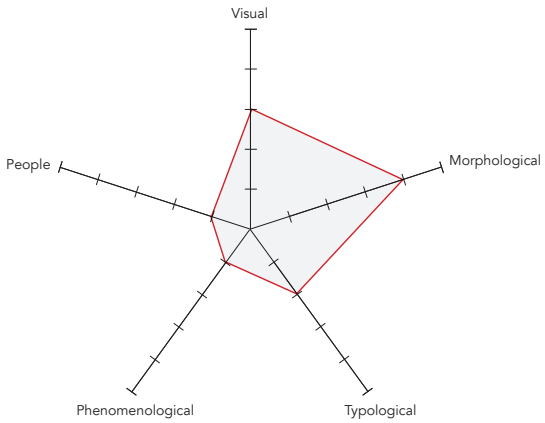
The next chapter is a summary of the findings of the design studies. This chapter explores the relationship of the designs to the five approaches to placemaking identified in chapter three before discussing the projects through the themes of the operational framework.

22 Adrian Forty, *Words and Buildings* (London: Thames & Hudson, 2004) p.114.
23 Robert McCarter, *Aldo Van Eyck* (New Haven: Yale University Press, 2015) p.233.

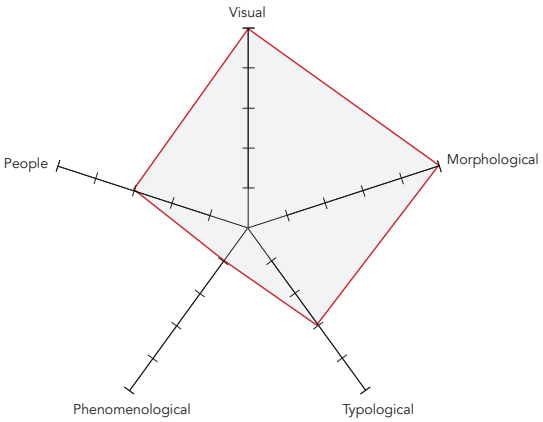
Pilot Study, Monte Carasso



Raven Lane Live Work, Ludlow



Food Centre, Ludlow



Civic School, Ruthin

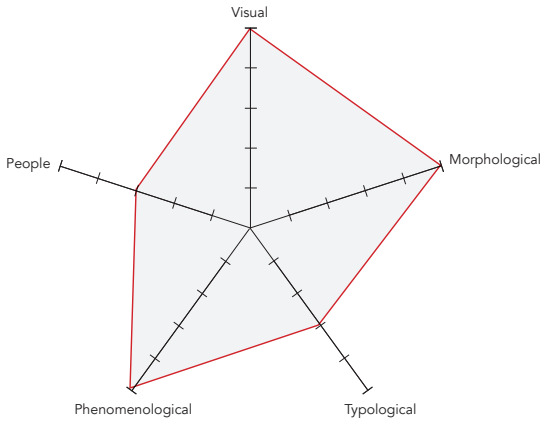


Fig 9.1. Mapping the designs against the five themes of placemaking identified through the literature review

9.0 SUMMARY OF RESULTS

9.1 Introduction

In this chapter a summary of the findings of the design projects is presented. It describes their relationship to placemaking literature described in chapter three before summarising the success of design through the operational framework. The evolution of the designs and the successes and weaknesses of each are discussed in relation to the operational framework design. Through the design process, the potential of architecture to enhance the experience of living and working in the twenty first century market town, founded on a place-specific vision for spatial intervention into existing town fabrics, is presented. The three projects suggest the development of an architectural language suited to the UK market town context. Through three designs with different types of site and brief, an approach to placemaking has evolved that is both place-specific and contemporary.

9.2 Placemaking in market towns

The literature review recognised the importance of placemaking in market towns and identified five approaches to placemaking: visual, morphological, typological, phenomenological and social.

Figure 9.1 maps the success of each design project against these five strands of literature and identifies a growing success in addressing the five approaches to placemaking. Figure 9.2 extends this study to map the operational framework against the five approaches to placemaking identified in the literature.

In Monte Carasso, the pilot study explored Snozzi's morphological and typological approach, working to define and strengthen part of the town and explore a family housing typology. The project undertaken in the seminar attempted to question Snozzi's approach by manipulating the building form to reflect the landscape rather than contrasting with it. Materials were chosen with reference to the context, rather than unquestioningly adhering to Snozzi's favour of modernist forms and raw concrete as a construction material and finish. This is perhaps a reflection of the influence of a 'British' approach, where the experience of working in the UK context has had an important influence on the author's approach. It also suggests that at this stage of the thesis there was an acknowledgement of the limits of Snozzi's approach and an emerging attempt to explore the formal and material palette further.

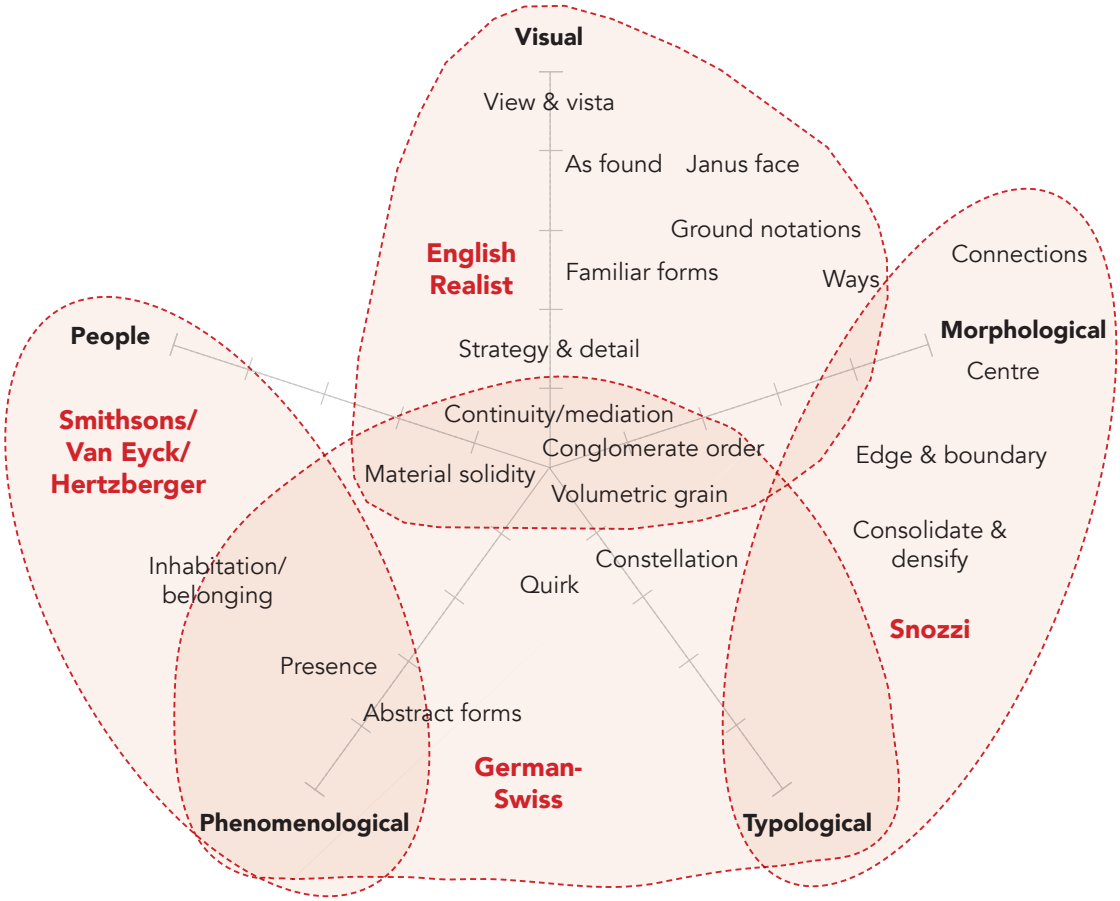


Fig 9.3. Comparison of the operational framework and the five modes of placemaking identified in the literature.

Returning to the UK, Raven Lane focused on the morphology, drawing on ground notations and ways, but combined these with visual aspects of materials and form. Typology was limited to research into the terraced house and live-work home, while social and phenomenological aspects were not explored. The visual became a focus for Ludlow Food Centre, particularly he siting and mass of the building on the escarpment and the visual impact of this on distant views. Social aspects of squares, meeting places and covered seating were explored, but investigation of experience and typology was limited.

In the final design in Ruthin, the phenomenological gained importance during the project to become perhaps the most aspect of the project by the addendum. In this project, the chart identifies that all five approaches to placemaking are evident. The design approach has become multivalent, relying not on one tradition of placemaking but attempting to take aspects of each approach into account.

9.3 Design and reflection through the operational framework

.The operational framework was tested through three design projects in a process of research by design. The designs were a means of testing and refining the operational framework- a means of finding things out- and a way of testing the applicability of the framework in a practice context.

The first iteration of the framework consisted of two parts. Initially, a settlement level analysis based on Snozzi's four themes was combined with a site level design framework derived from German-Swiss architecture supplemented by English realism, categorised under four themes Testing the framework in Ludlow highlighted a disconnect between the settlement and site levels. In the two Ludlow studies, mapping at the settlement level preceded design. It highlighted the sites chosen for exploration but there was a degree of separation between the mapping and the subsequent design process. The inability to successfully combine the two layers led to its reorganisation in an attempt to integrate the two levels of study. A revised framework (figure 1.3) was tested in Ruthin as a framework of analysis but also of assessment, revealing designs through the framework. Analysis and design were not considered as separate stages but seen as integrated and part of the same design process.

The process of design in Ludlow and Ruthin highlighted that a further iteration of the operational framework was required to reflect the finding of the Ruthin study and peer review feedback. Adding consideration of experience and inhabitation will force the designer to consider both the picturesque compositional potential of a project and the existential; in this way, projects transcend architecture as an object to be viewed, enable inhabitants to inhabit

MORPHOLOGY	GROUND	GRAIN	FORM & COMPOSITION	LANGUAGE	INHABITATION
Centre	**Ways**	**Volumetric grain**	**Abstracted form**	**Material solidity**	**Moment/affordance**
Edge/boundary	**Connections**	**Consolidation & densification**	**Familiar forms**	**Presence**	**Threshold**
View and vista	**Ground notations**	**Conglomerate ordering**	**“Quirk”**	**Continuity/Mediation**	**Appropriation**
	As found	**Constellation**	**Janus face**	**Strategy & detail**	

Fig 9.4. The final framework

and interact with buildings and helps to reveal their place in the world (fig. 9.3).

The designs will now be discussed using the six themes of the final operational framework to draw out the success of the designs in making place.

-Morphology

All the designs strengthen and reinforce the place. All three projects densify and consolidate the historic core of the town through introducing new buildings to urban voids. Introducing new buildings to sites within the historic core strengthens the fabric and sustains shops and services, preventing communities becoming 'ghost towns'.[1]

The three projects address different urban conditions: urban infill, strengthening an edge adjacent to the town centre, and an interface between the historic and new town. These three types of site were chosen out of the mapping process to test the operational framework on conditions that are common to many market towns but also strongly relate to Snozzi's four themes. Raven Lane was an infill site for consolidating and densifying the settlement; Ludlow Food Centre was an edge site located close to the centre, and with the possibility of connections to and from the centre and to other areas of the town and the hinterland. In Ruthin, the riverside site for the Civic School is an interface site between the historic core and suburban expansions to the town. This site gave the opportunity to explore the possibility of stitching the town together and reconnecting the old and new town.

Due to the constrained nature of the site, views to and from Raven are oblique owing to the narrow scale of the lane. It would not be possible to see the elevation of the building in its entirety from any point- the elevations are hidden, embedded in the town fabric. This led to the exploration of fenestration and streetscape not through orthographic elevation drawings, but through views from the street. This trend continued through the subsequent projects, where view and vista became increasingly important. The Ludlow Food Centre's escarpment edge, in contrast to Raven Lane, was highly visible from the hinterland. The impact of the building on the skyline was explored in detail through 3D views and massing models and this was an important driver of mass, form and proportion. Although not as prominent on the skyline, the Ruthin Civic School was also developed through views of the complex and the relationship between new and existing. In all these cases, the picturesque view was important in design of form, texture, colour and scale. This draws on visual approaches to placemaking, where the designer is:

1 New Economics Foundation, *Ghost Town Britain: The Threat From Economic Globalisation To Livelihoods, Liberty And Local Economic Freedom* (London: New Economics Foundation, 2002).

> "*Alive to the possibility of creating new visual qualities and relationships, or emphasising existing ones and creating new feelings of local identity where none existed already.*"[2]

The introduction of a marker on the skyline aimed to locate the Food Centre in the town and to give a civic presence to the new public building. Similarly, the stepped massing of the Civic School developed in the design addendum for the gateway to the historic town at the southern corner of the site marks its civic importance as a community building and a marks a key node moving into the historic town. This visual move has parallels in Snozzi's Guidotti House (the Mayor's house), which *"appears as a small tower isolated in the midst of a vineyard, precisely marking the point at which the Ring Road changes direction."*[3] Here, the form and mass of the building is manipulated to reinforce the sense of place and mark an important change in the urban fabric.

-Ground

A care for a site as found, its relationship with the wider surroundings and the settlement as a whole was an important design driver and a successful theme in responding to place. Accepting, reinterpreting and employing the everyday as a design tool helps embed the designs in their place. The most effective exploration of ground was ways, which became richer through the three designs. Ways are the primary public spaces in a town, a place where the familiar and the unexpected collide. With the importance of inhabitation recognised through the designs, the ways became a key place where social engagement and belonging can be fostered.

A greater understanding of the fine grain differences and the hierarchy of ways and routes in the study towns assist in embedding the designs in their contexts effectively. Their character is derived from their sense of enclosure, proportion, grain of plots, use, porosity, traffic (car, cycle, pedestrian), lighting and planting.

Raven Lane took the lane and yard as a way of creating multiple dwellings in the depth of the burgage plot and focusing work activities on a semi-public space. Ludlow Food Centre explored a wider variety of ways from the alley to the square and used these as ordering devices around which the building was organised. In the Civic School, the network of ways, squares and yards was further refined to create new links through the building and connect previously disparate areas of the town. Here, the scale and proximity of ways was explored in depth to derive a hierarchy of public to private spaces. The building extends ways from the site out into

2 Roy Worskett, *The Character of Towns* (London: Architectural Press, 1971) p.74.
3 Peter Disch, *Luigi Snozzi: the complete works* (Lugano: ADV, 2003) p.329.

the context in the form of lanes and alleys that extend like tendrils into the existing fabric. This knits the building into the surrounding and opens new opportunities for connection between the historic core and peripheral suburban development.

The underlying structure of the place in the form of burgage plots and bunds defined the pattern of the buildings in all cases. As Sergison suggests, *"once absorbed into an existing situation, new 'ground notations' begin to refocus a place and act as the basis for subsequent actions."*[4] Raven Lane's mixed-use brief is perhaps similar to the medieval pattern of the burgage system where living, working and outdoor space existed in close proximity and often under different ownerships. While the burgage plot was adhered to perhaps too strictly here, Ludlow Food Centre drew on their linear nature and direction to suggest locations for building forms. The Ludlow Civic School followed the pattern of strong plots to the west of the site to establish a street edge and manipulated the existing bunds to define a series of gardens and courtyards across the site.

-Grain

Grain considers the two-dimensional and three-dimensional mass and organisation of the building around ways and ground notations. All three designs created a conglomerate form with a tight knit fabric and a feeling of density. This is a positive asset in a market town, where the scales of ways and intensive historic patterns of development are intrinsic to their sense of place. Density of development is further seen as essential in increasing the number of people living in and using the services in historic town cores, supporting local shops and services and preventing atrophy. The three projects attempt to continue an intensive urban fabric; Raven Lane completes a gap in the lane, completing the street frontage, while continuing the grain of burgage development behind the street. The Food Centre and Civic School are larger, public buildings. Here, what could be designed as large span spaces are fragmented and volumetrically manipulated to create a sense of continuity with the existing grain. Through treating the building as a conglomeration and developing proximity, however, the massing maintains a sense of being one building.

As was identified in the two Ludlow projects, the designs would be difficult to build in their current form within the UK Planning in Building Regulations framework. Overlooking distances, fire regulations, adjacencies and refuse access all diminish the potential to create proximity and intensity. As Sergison asserts:

4 Jonathan Sergison and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007) p.52.

> *"Regulations have significant consequences which are generated not by considerations atmospheric or special quality but by social perceptions of health and safety. Four instance, car park in standards and stringent overlooking regulations have limited the potential for density. The consequence, as density increases, is a growing autonomy of objects – large buildings with large spaces between them […] continuity of street frontage, hierarchy of street with and public space, and a sense of spatial proximity seem to be at odds with the regulations. "*[5]

The regulations address practical needs but accept little of the spatial consequences of these actions. The three projects, in contrast, address spatial considerations but do little to acknowledge the regulatory framework. However, as has been identified, there are possibilities to build with density and proximity while meeting the regulations. Examples such as Peter Salter's Walmer Road and Stephen Taylor's Chance Street suggest design tools, for example, courtyards, shutters, brise soleil, cowled windows and rooflights, that can address these concerns. A further step of development could explore proximity further and describe design tools that could enable tight knit development to take place in market towns.

-Form & composition

The three projects aim to create a critical contextualism where form is derived from the familiar but is manipulated and abstracted to create a contemporary architecture. This approach creates continuity with the existing condition while establishing a contemporary architectural language able *"to relate a recognisable order of reality, yet remain capable of transcending it."*[6] There exists a common language to the three projects, founded on the simplification and abstraction of forms derived from the study of a town, and resulting in simple prismatic volumes assembled in conglomerations.

Despite similarities, the formal approach has notably changed through the three projects. At Raven Lane, the form was an abstraction of the surrounding terraced houses, a simple prismatic volume with details minimised. Gutters and downpipes are concealed, and windows are simple punches into the brick skin. The Food Centre further abstracts the form, creating a single material envelope and a constellation of formally similar buildings. These projects can be seen as derivative of English Realist architecture, in particular the approach of Sergison Bates. During the subsequent project in Ruthin, the form moves from simplified abstraction to a more mannered form that responds to the Janus face conditions around the site. This reflects a

5 Jonathan Sergison and Stephen Bates, *Papers 3* (Lucerne: Quart, 2106) p.78-79.
6 Irena Davidovici, *Forms of Practice: German-Swiss Architecture 1980-2000* (Zurich: gta Verlag, 2012) p241

picturesque approach that emerged when the study of the building form from the surroundings became a primary concern.

While the designs use simple and repetitive forms subjected to degrees of abstraction, the manipulation of mass and form evolves through the three projects and the form becomes more literal. Manipulation of form through the introduction of markers at key nodes evokes Lynch's imagability of place. These address specific views and edge conditions from key viewpoints, such as the hinterland or thre approach to the town.

-Language

The thesis argues that to be rooted in a place, a design should have a solidity and authenticity that reveals its construction and has "*direct experiential impact*".[7] The pursuit of this has proved problematic and barriers to its realisation have been encountered.

While all use three projects use brick for its textural qualities and historic associations, in the Ludlow projects the material effect is prioritised over tectonic truth. At Raven Lane, material and construction exploration was limited as formal composition, grain and ground were the focus of the design. While a 'general form' is achieved with a degree of presence through abstraction and minimised detailing, the construction and detail was not explored in depth. In the Ludlow Food Centre, a 1:20 elevation study was carried out that explored a direct construction with a double skin of brickwork. While this suggests the influence of craft techniques and tradition and the desire to become part of the patchwork of the town, its realisation is less convincing. The Food Centre has brick slips clad roofs, while a cavity wall with full fill of insulation is used for the walls. A standard window system aligns with the insulation, creating a flat façade with a depth of only 100mm between the outer face of brick and the window. Despite an ambition to create depth, a stretched skin is created. The window depth was fixed in order to create a continuity of insulation and minimise complex detailing at the window head and sill. The result is not as textural as the traditional buildings found in the town and lacks any play of shadow. The brick selected was chosen for colour alone; sourcing was not considered and so the selected brick is imported. Similarly, the window system is a proprietary system that has no sense of place or significance to the town.

The first response at Ruthin Civic School was to create a brick and stone skin that referenced the surrounding materials. However, this was applied as wallpaper to a timber frame- a cost effective way of faking solidity for a building type under strict budgetary constraints- but the opposite of a direct and legible form of construction. The manner of construction remains

7 Pamela Self, 'Material Presence and the Mystery of the Object', in *Architectural Research Quarterly* 6. 3 (2000), 190-192 (p. 190).

secondary to the image.[8] A concern for the depth of skin and its role in creating a sense of solidity and presence meant the resulting taut façade was seen as not embodying the intent of the operational framework. In the addendum, the sense of presence and opportunity for inhabitation was explored further, resulting in a thick carapace wall that can be carved into, creating places to sit, planters, and deep shopfront reveals. Insertions into the wall- windows, ventilation panels, seats and planters- are designed as joinery items. However, if the building were to be constructed and cost saving had to be made, a standard window system would likely be substituted. Unlike Ludlow where the skin of the building is taut and the thinness of the window frames more evident, the window system in Ruthin is seen as secondary as it is recessed within the wall to a greater extent and the focus will be on depth and inhabitation.
The carapace wall is offset by a more cost effective rendered timber frame construction for the classrooms. The 'thick crust' has 'thin insides'- a strong street presence with a softened internal landscape. The design of windows, doors and seats as bespoke timber elements rather than standardised systems further creates a sense of specificity. Similarities can be drawn to Ruthin Craft Centre, where a local joiner was appointed to craft bespoke white washed Oak windows rather than resorting to standard catalogue items.

However, there are implications of such an approach. Firstly, the cost of construction for materials with the required sense of presence and solidity will be considerably higher than many clients will be prepared to pay, a notion raised at peer review. The described routes to solidity- masonry, concrete, stone- may take longer to build and require specialised labour, potentially increasing costs further. Other external factors, such as increasingly demanding energy performance standards will have an impact on the chosen construction route and the extent to which presence and solidity can be achieved. As Mcvicar suggests,

> *"Today the expression of truth in an external wall invites complex negotiations with structural and thermal requirements; waterproofing, damp-proofing, cold bridging, U-values; an assemblage of hidden and exposed layers, metal and plastic ties, vents, supports, connections."*[9]

Designers aspiring to achieve presence and solidity are likely to have to be innovative in funding and construction methods in order to overcome these challenges.

8 Irena Davidovici, 'Tectonic Presence' in *Sergison Bates Architects: Buildings* (Zurich: Quart Publ. 2012) ed. by Heinz Wirz pp.9-14 (p.9).
9 Mhairi McVicar, 'Memory and Progress: Confessions in a Flagstone Wall' *Architectural Research Quarterly* 11.3/4 (2007), p.204.

-Belonging

The importance of people in the creation of places was highlighted by CABE's definition of placemaking as "*the art of making places for people.*"[10] The argument that emerges is that while a building may be designed to embed in its place, its role should go beyond the object the enable built homecoming. While not evident in Raven Lane, its importance grows through Ludlow Food Centre and Ruthin Civic School. The addendum to the final design explores how it can be designed in detail to enable affordances, remind the inhabitant of their place in the world through framed views and relationships with the wider town, and have public spaces that can be used in a variety of ways to become part of the rhythm and ritual of town life. A number of opportunities were designed, the majority of which engaged with the extended threshold at the site boundary. These include seating recesses cut into the carapace wall; steps that create seats; the studio shopfront, with a relationship between craftsperson and the public, and the bund-ways to the north of the site. In considering the threshold in detail, the sequence of events and moments moving from inside to out, public to private, cohesion can be found between the town and the interior spaces of the building.[11]

Further serial views through the site on the main east west route were illustrated to explore both the spatial and formal aspects of the design and how these spaces may be inhabited. The views out of key spaces were illustrated, such as the classrooms and the bounded square. The combination of exploring the site from the outside through street level views and from the inside, connecting back to the town, is seen as an important finding in creating place. As Aldallal describes,

> *"Examining the site simultaneously from inside-out and outside-in highlights and heightens our awareness of the binding socio-cultural constructs that resist isolation and autonomy, and enmesh both spaces and experiences."*[12]

Here, the experience of the person becomes important in making a place that is embedded in its context; designing ways and means of inhabiting a building allow inhabitation to take place and encourage a sense of being in the world and belonging.

9.4 Conclusion

This section has discussed the evolution of the designs through the operational framework.

10 CABE, By Design. *Urban Design in the Planning System: Toward Better Practice* (London: CABE & DETR, 2000) p.8.
11 Ennis Aldallal, *Site and Composition* (London: Routledge, 2016) p.62.
12 Ennis Aldallal, ibid. p.103.

What emerges is that each design has a different emphasis and the importance of aspects of the framework has a valency depending on site and context, brief and the designer's approach. The extent to which the design address the five approaches to placemaking identified in the literature increases through the three projects; morphology is a constant emphasis throughout, but by the Ruthin Civic School there is equal emphasis on phenomenological and visual placemaking. Typological and people oriented approaches are evident, but are less important. This demonstrates that by addressing numerous approaches to placemaking, design through the operational framework has the potential to create an architecture specific to its place. It combines approaches to place from different theoretical backgrounds, generating a rounded proposal that creates place at a number of levels.

The next chapter draws findings from the design studies in Ludlow and Ruthin before suggesting further areas for research.

10.0 FINDINGS AND FURTHER WORK

10.1 Introduction

In this chapter, the observations and reflections from the design studies are summarised into a series of findings. The chapter responds to the hypothesis and aims of the thesis and will highlight the key themes that have emerged. It is structured in four parts: the application of Snozzi's approach; the model system; the design projects; and further work.

The studies reveal that there is potential for a place-specific approach to the development of the UK market town and a role for designers in that process.

Through a pilot study and design studies in two market towns in the Marches, a mapping process was developed that draws from numerous fields and approaches to placemaking. It enables the designer to identify strengths and weaknesses in town fabrics and becomes an armature for design. Secondly, an operational framework was designed, tested and refined that produces a place specific underpinning for the design process. Through its application, design proposals strengthen and enhance the sense of place. Designs on three different types of site have been used as vehicles through which the operational framework is tested. Both the design process and the artefact are discussed and their success analysed.

Observations and reflections drawn from these studies are now discussed in relation to the aims and objectives of this thesis.

10.2 The application of Snozzi's approach

Luigi Snozzi's urban and morphogical approach was studied through literature and a pilot study undertaken at the Monte Carasso Design Seminar. By focusing on the morphology of the town, its centre and edges through a network of small scale interventions, Snozzi's approach reinforces the sense of place and creates strong and recognisable edges.

The design studies demonstrate Snozzi's design approach can be partially applied to the UK market town. The four themes identified (defining the centre, edges and boundaries, densification and consolidation and connections) can be used to reinforce and strengthen the sense of place. However, the modernist architectural language employed by Snozzi is not seen as directly applicable. The architectural language employed by Snozzi aims to reveal the value of landscape, historic building and place through confrontation and difference; this is considered too confrontational to be suited to UK market town contexts. While modernism has enjoyed a long and sustained presence in Central Europe, in the UK it prevailed for a far shorter period. The impact of townscape, the legacy of the picturesque and the importance of the conservation lobby in the UK impacted on its longevity. Through design studies it is argued that instead, design should be place-specific and informed by detailed studies of character and context. To address the perceived formal and material shortcomings of Snozzi's approach, an operational framework was developed that combined Snozzi's themes with themes drawn from German-Swiss architecture and an English realist approach.

The success of Snozzi's lasting engagement with people and place highlights the value of continuity and a long-term vision. During his engagement in the town, planning policy has been questioned, refined and continually tested to ensure it is fit for purpose and evolves to reflect the changing needs of the town and its inhabitants. The Design Seminar is an important aspect of the process and allows emerging possibilities to be tested and possible outcomes to be explored. The projects students engage with during the seminar are often those which are controversial or push the boundaries the planning policy established by Snozzi, creating an opportunity to explore ideas with the community before committing to development. This is a valuable tool that could benefit market towns in the UK.

10.3 The model system

10.3.1 The mapping process

A mapping process has been developed and tested that identifies the potential for reinforcing and enhancing the sense of place in market towns. It has potential to be both analytical and generative; it can aid the identification of character and distinctiveness, highlight strengths and weaknesses in urban fabric and feeds into the design process. It builds from Snozzi's spatial and formal approach to Monte Carasso to a more layered and holistic process of analysing the strengths and weaknesses of urban fabric.

The mapping process creates layered and abstracted readings of place. This 'place register' is used as a way of documenting and recording the physical environment as it exists and is used in the present, before it is interpreted and propositions emerge. The themes explored are drawn from a number of fields- geographical, architectural, historical, cultural and social. The mapping evolved from plan based to a three dimensional multi- scale mapping process as design projects were undertaken and the importance of the measure of a town- its scale, proportion, materials and form- was identified. Through the mapping process strengths and weaknesses emerge and sites to reinforce and enhance the sense of place are revealed.

Working at the scale of the town suggests site thinking must extend beyond the site to consider larger patterns, orders and systems.[1] Exploration of a broad spatial territory, as identified in Snozzi's approach of thinking beyond the site to the street, the town, the city, the region,[2] suggests a wider fieldwork process than is usual in professional practice. Working in the gaps between professions- planning, landscape, architecture, geography and history- creates a place for the designer in determining sites and expanding their role in planning and development processes.

However, no opportunity exists for such a study in the planning framework. Under-funded Local Authorities do not have the resources or in some cases the necessary expertise to undertake or fund a wide-ranging study. While neighbourhood planning enables local communities to develop neighbourhood and place plans, these are less concerned with the built environment and more focused on community well-being, local facilities, housing and economics. Furthermore, to gain maximum benefit from an in depth mapping process, professional expertise is likely to be required, risking excluding communities from applying the process.

1 Carol Burns & Andrea Khan, 'Introduction' in *Site Matters: Design Concepts, Histories, and Strategies* (New York: Routledge, 2005) edited by Carol Burns and Andrea Kahn, p.xii.
2 "*If you design a path, a stall, a house, or a neighbourhood, always think of the city.*" Luigi Snozzi, quoted in Peter Disch, *Luigi Snozzi: Complete Works* (Lugano: ADV, 2003) p.27.

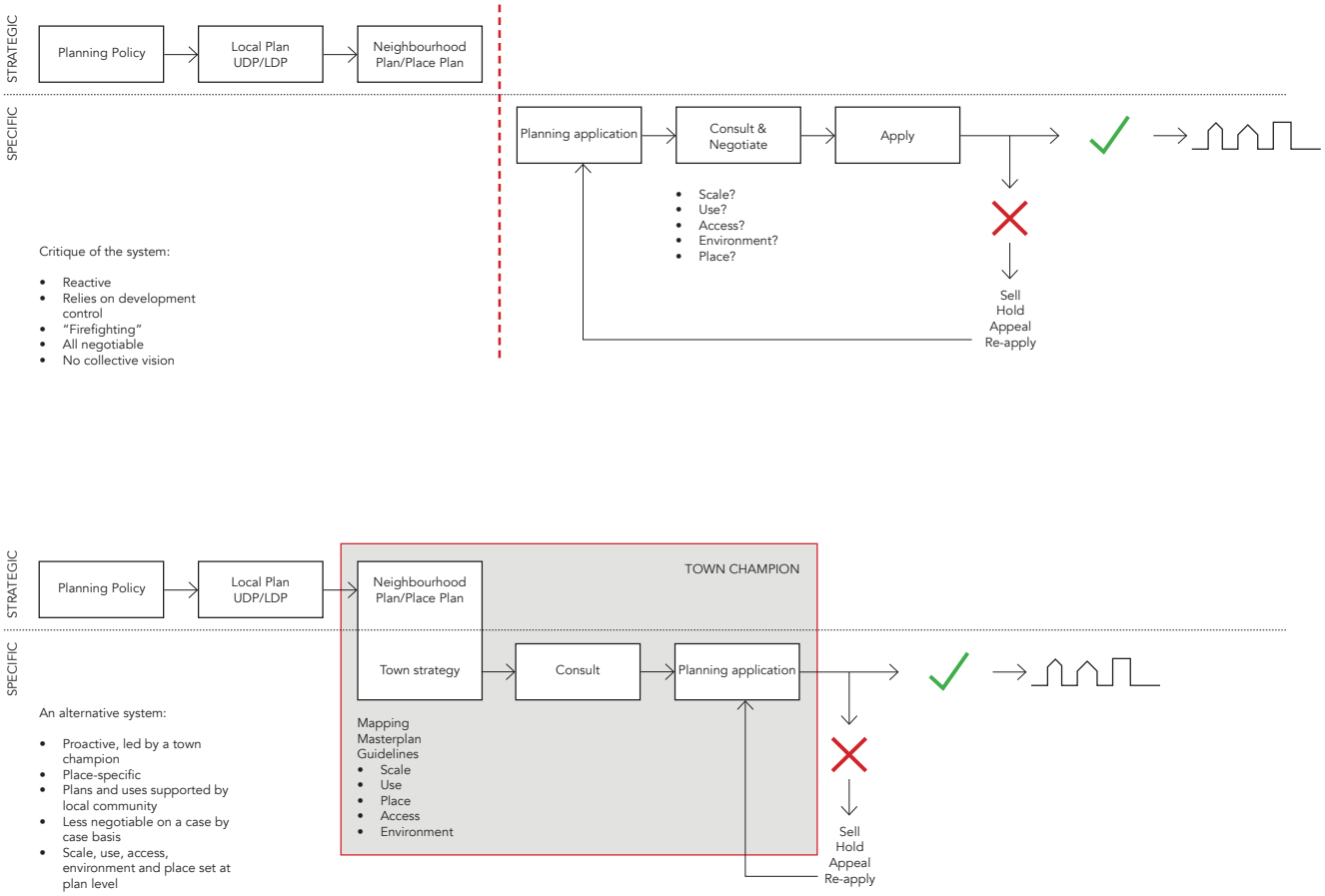


Fig 10.2. Fig: The current planning system and a suggested alternative place specific system led by a town champion (current system diagram redrawn from The Farrell Review)

Currently, the role of the designer in this process is not identified in policy or guidance. The RIBA Plan of Work 2013, the framework that outlines the tasks and outputs at each stage of the construction process, has limited reference to site and context.[3] Other guides such as the Planning Officer's Society for Wales '*Model Design Guide*' and CABE's '*By Design: Urban design in the planning system*' describe the benefits of in depth analysis of site, but codify an approach into a series of 'tick box' exercises that have limited depth of analysis. As Aldallal identifies, site specificity is largely ignored and an over-simplified instrumentality prevails.[4]

The Farrell review suggests a move to proactive planning lead by PLACE institutes and agencies that "*champion the civic*"[5]. A development of this could be to introduce a professional with a responsibility to champion place and distinctiveness for local people. David Rock's RIBA presidential initiative, the Town Champion, suggested the need for an independent expert who can understand the built environment, urban design, planning and property development.[6] This person could work alongside a Local Authority to bring an independent voice that argues for place and people in the development and planning process (figure 10.2). Working in an evidence-based approach founded on an in depth mapping of place, a Town Champion would have the task of questioning assumptions, acting as a mediator between people, place and policy, and providing an objective, impartial voice in what can at times be places fraught with conflicts of interest and passionate rival factions.

The evidence of Snozzi's long-term engagement in Monte Carasso and Rock's longstanding relationship with Ware suggests continuity is critical. The short terms of political office and the resulting cutting and changing of councillors, policy, targets and regulations carries the risk of place specific plans being cast aside as personalities and priorities change. The development of market towns has historically been based on a slow accretion of change not rapid redevelopment, and the in depth mapping process encourages a long-term engagement with place. In order to be successful, the outcomes needs to be championed by professionals and supported local people, as has happened in Monte Carasso over three decades.

10.3.2 Design through the operational framework

An operational framework to create place-specific contemporary buildings in UK market towns has been designed and tested through design studies in Ludlow and Ruthin. In a final iteration,

3 RIBA, *RIBA Plan of Work: Overview* (London: RIBA Publishing, 2013) p.15.
4 Enis Aldallal, Husam AlWaer and Soumyen Bandyopadhyay, Site and Composition. (London: Routledge, 2016) p.155.
5 PLACE: Planning Landscape Architecture Conservation Engineering. See Terry Farrell, *The Farrell Review of Architecture + the Built Environment* (London: Farrells & Department for Culture Media and Sport, 2013) p.162.
6 Dan Bone, Town *Champions: The President's Initiative* (London & Oxford: RIBA & Alden Press, 1999) p.9.

MORPHOLOGY	GROUND	GRAIN	FORM & COMPOSITION	LANGUAGE	INHABITATION
Centre	**Ways**	**Volumetric grain**	**Abstracted form**	**Material solidity**	**Moment/affordance**
Edge/boundary	**Connections**	**Consolidation & densification**	**Familiar forms**	**Presence**	**Threshold**
View and vista	**Ground notations**	**Conglomerate ordering**	**“Quirk”**	**Continuity/Mediation**	**Appropriation**
	As found	**Constellation**	**Janus face**	**Strategy & detail**	

Fig 10.3. The final framework

the framework is refined to reflect the importance of people in creating place and to simplify the framework for application in practice.

The operational framework sets out principles and processes that have been derived from critique of Luigi Snozzi's approach in Monte Carasso and a search for compatible approaches that addressed the perceived shortcomings. German-Swiss architecture in the Graubunden and English Realism were identified as two complimentary movements that although contemporary in form, language and material are rooted in their place. The analysis of these approaches informed the development of an operational framework for testing in the UK market town context.

The final framework (fig. 10.3) is organised by scale, moving from urban considerations through site to formal concerns and into detail of material and inhabitation. It is seen not as hierarchical and it is acknowledged that all aspects of the framework are interrelated. Furthermore, the designs suggest that depending on site, brief and town, different aspects of the framework may be more or less important.

The themes are described further below:

- **Morphology:** The first theme considers the urban scale of a town and its strengths and weaknesses. Though this theme sites are identified that can reinforce, strengthen or enhance the sense of place and repair weak areas of fabric. Identifying centre(s), edges, important viewpoints and vista as well as connections create an understanding of the qualities of the urban fabric, enhancing the contribution of a design to the urban environment and wider community.
- **Ground:** In addition to practical issues of siting, ground implies an understanding of as found conditions including surface, notations, and ways. Of particular importance is the scale, enclosure and use of ways, which was a vital consideration in the design case studies.
- **Grain:** Understanding the scale, mass and volume of a town enables a design to be knitted into the existing fabric to consolidate and intensify the built fabric. While constellation and conglomerate order suggests the fragmentation of plan forms into a close knit and intimate series of interrelated parts, volumetric grain explores the three dimensional massing of these in relation to the context.
- **Form & composition:** In order for a design to maintain meaning, the thesis argues that familiar forms should be sought and subjected to a degree of abstraction, creating contemporary buildings informed by their place. Considered responses to the immediate surroundings may create changes in scale, material or proximity.
- **Language:** As well as function and durability, materials should be chosen for their

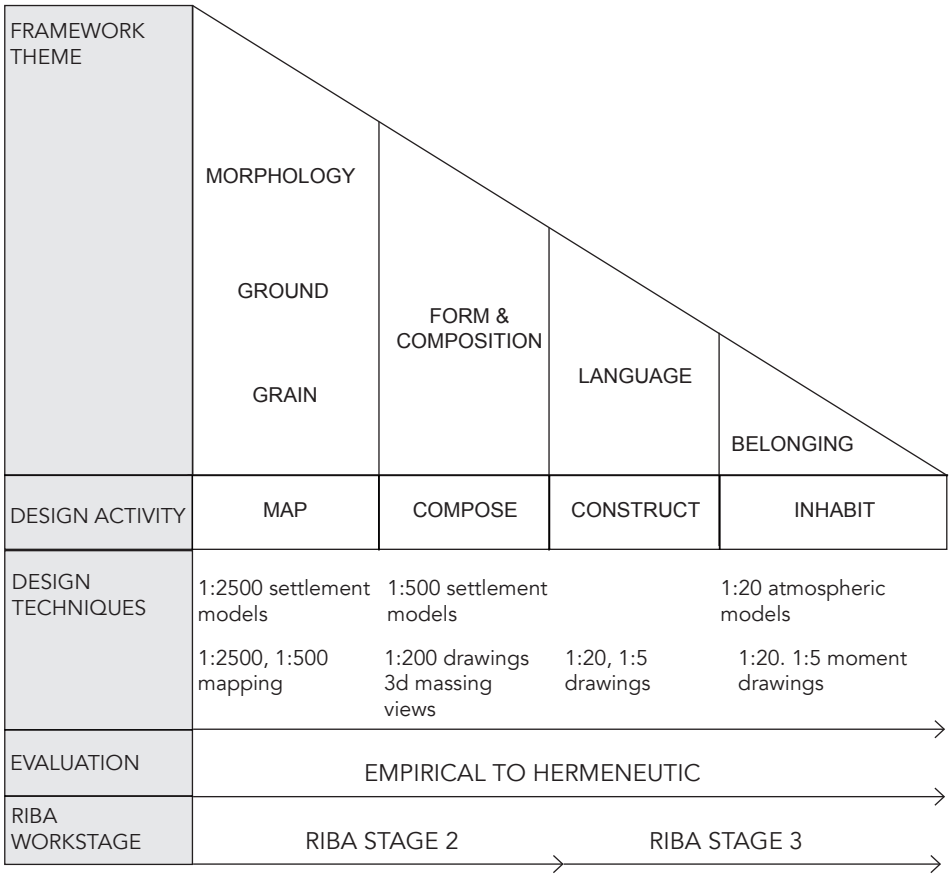


Fig 10.4. The framework organised by time, RIBA Workstage and illustrating design techniques, evaluation and activity

sense of gravitas and solidity. Materials should be chosen for their expression and quality in relation to the surrounding context, based on an understanding of local materials and craft.

- **Belonging:** Opportunities should be found to allow people to use the building in a variety of ways, in particular by creating opportunities for inhabitation in and around the building and extended thresholds. Creating visual connections both to the building from the surroundings and the framing of the surroundings from within the building contribute to a sense of place and belonging.

The framework creates a model that any designer could follow and bring their own experience and identity to projects. It is not stylistically prescriptive but encourages engagement with place and the consideration of underlying themes that embed a design in its place- scale, mass, grain, material, form, and stitching into the wider town.

In Figure 10.4, the framework is re-presented alongside associated design activities, techniques, models of evaluation and scales of working. This is further mapped to the RIBA Plan of Work to suggest likely workstages at which each theme of the framework might be most relevant. This diagram combines the operational framework with the design process in an integrated and interrelated route map to successful placemaking in market towns. It further highlights the shift in the framework from the empirically measurable- for example scale of ways and volumetric grain- to aspects more open to interpretation, such as form and composition, where the approach of the designer will have the most effect on the design outcome (see 10.3.3).

The emphasis on a morphological foundation for design addresses an aspect of place that is invisible in the UK planning system. The importance given to conservation and preservation disregards the structure of towns and instead emphasises the protection of historic core rather than its evolution. The operational framework creates the opportunity for future development to be founded on an understanding of the morphology of place, its strengths and weaknesses, guaranteeing a place-specific response to market towns.

10.3.3 The influence of the designer

The process highlighted the difficulty in cleanly separating a design into the themes in the framework. However, this is seen not as a negative to be overcome but a positive attribute. Compartmentalising the framework could lead the designer to see the themes as unrelated, whereas the design process highlights the importance of interrelationships, as Lawson describes:

> *"a designer cannot think about one problem at a time. It would be nice indeed if we could simply break design problems down into their constituent parts… it simply cannot be done like that. The need to think about the whole problem, or at least a great number of issues at once, is another of the features that make designing challenging."*[7]

Despite these interrelations, a notable difference can be seen between the application of more easily quantifiable aspects of the operational framework (for example ways and ground notations) and more personal aspects where the background and attitude of the designer is more influential (such as presence and language). The scale of ways, mass and volume and connections can be evaluated empirically by comparison to the existing fabric. Language, form and belonging are themes where personal experience, intuition and pre-understandings are more prevalent and as such where multiple understandings and reading of the framework are likely to occur.[8] This is perhaps the area of the framework that has proved the greatest struggle in reconciling the author's personal approach with the demands of the framework and where the two become intertwined. This is where stylistic differences between designers might emerge; while different designers might share an approach to ways and ground notations, there may be multiple interpretations of form and language resulting in unique designs from the same operational framework and site.

7 Bryan Lawson, 'The Art of the Process' in *The Art of the Process: Architectural Design in Practice*, (London: RIBA, 1993) edited by Louise Rogers, p.10.
8 Adrian Snodgrass and Richard Coyne, 'Is Designing Hermeneutical?' in *Architectural Theory Review*, 2.1 (1996) pp.65-97. (p.85).

10.4 The design process

Through the design process, a method of research by design has been used to test the operational framework and to develop a design approach suited to the market town. The design process has used a variety of tools- mapping, drawing, sketching, photography, physical and computer modelling. Design work has been informed by best practice precedent and literature studies and both process and artefacts have been subject to peer review, reflection in action and reflection on action.

10.4.1 Design techniques

The design process has highlighted that two primary techniques were invaluable in the research by design process. Physical and computer models enabled testing of the mass, form and grain of the designs against their context quickly and enable the person's eye view to be tested. Secondly, three-dimensional representations from the person's eye view of the design in its place suggest the continuing importance of the picturesque in designing for market towns. The relationship between a design and its context was considered vital; a building is not seen as an object but as one part of a larger context that is experienced through the person.

Three-dimensional models were created throughout the thesis. 1:2500 settlement models explored morphology and topography and became tools to illustrate weaknesses in the built fabric. Produced as part of the analytical mapping process, these models have also been exhibited at 'Reflecting Wales 09.09' at Howard Gardens Galley, Cardiff, Ruthin Craft Centre and the National Eisteddfod for Wales. 1:500 physical working models of sites were used to test massing and the form of design proposals. These were supplemented by three dimensional computer models, which allowed fluid iterative massing options to be tested.

In all the designs, the building scale drawing was largely omitted. The focus was on the strategic settlement scale (1:2500 & 1:500) to explore the relationship of the design to its wider context; 1:200 for building form and layout; and then 1:20 for inhabitation, material and detail. With similarities to the approach of strategy and detail described by the Smithsons, the building emerges from the move between these changes in scale with the building scale the last to emerge. The finer grain of 1:100 and 1:50 general arrangements and room layouts introduces functional requirements that, while important, are not embedded in place. This technique of moving between large and small scale allows key aspects of placemaking to be explored simultaneously and creatively.

Visual representations of picturesque aspects of place were important in the design process.

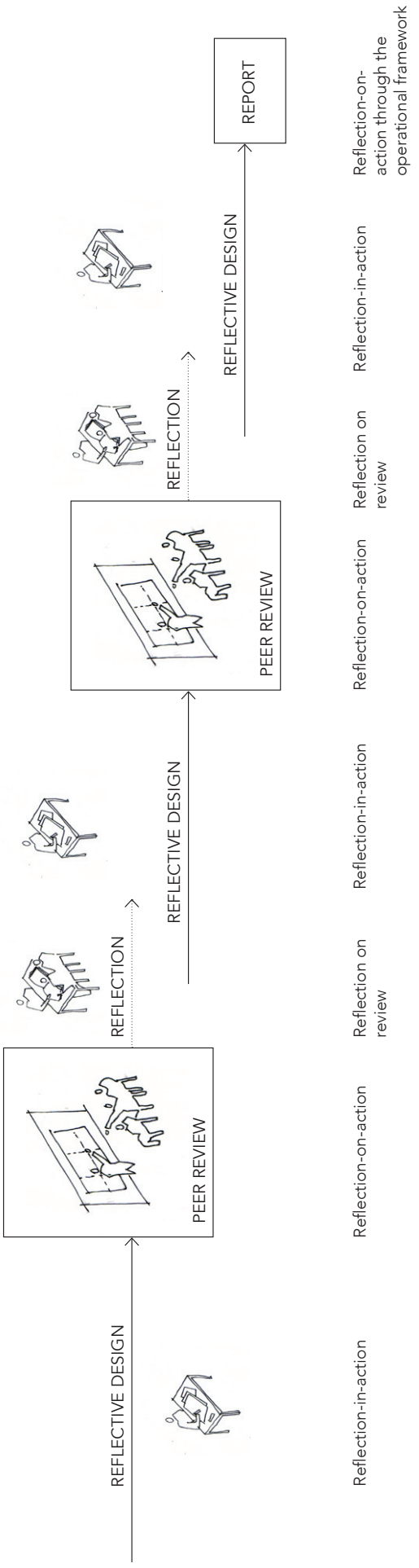


Fig 10.5. Fig: The typical design process followed in the thesis

This has parallels to this visual approach to placemaking developed through the townscape movement and suggests the continuing importance of the picturesque in designing in market towns. While the computer renders prepared for the Ludlow designs describe the buildings in context effectively, they are perhaps limited in their identification of the hierarchy of importance of different aspects of place and the identification of the new buildings against their surroundings. Rather than a representational image, a technique that was both analytical and representation was sought. In contrast, the hand drawings prepared for the Ruthin design study more effectively describe the relationship of new buildings to old and the sense of inhabitation. Key images appear several times but with different layers (of material, texture and inhabitation) applied. They are further seen as part of the design process, a way of imagining, testing and exploring as much as representing a final design outcome.

This approach contrasts with the types of drawing that would be required to make a planning application, which would emphasise the building as a set piece object described through orthographic drawings. Through the thesis the argument is made that a design should be represented in its broadest context and through visual means rather than classic architectural drawings (plans, sections, elevations). The drawings produced through the process increasingly emphasise the relationship between design and context, inside and outside, connections (both physical and visual) and the impact on the townscape. This is perhaps best seen in the Ruthin design study; peer review highlighted that the final drawings were lacking a sense of place and acknowledgement of where the building was located. This was addressed in the postscript, views onto and off the site and inhabitation of the building were considered in more detail.

10.4.2 Documentation of the process, review and reflection

The iterative design process was documented at key stages through sequential models, sketches, drawings and photographs. The process recorded in the thesis visually describes design moves and offers a brief critique against the operational framework. Alongside this, design diaries and sketchbooks were kept for each project. Written notes of each tutorial and review were made and included in the design diaries to record peer and tutor feedback in- and on- action.

Reflection in- and on- action proved important to make sense of the iterative and cyclic design process and to reflect on the success of the designs against the operational framework (figure 10.5). However, it proved difficult to apply a methodological approach to design while working creatively. The personal intuition and creativity of the designer proved difficult to constrain with a framework without personal sensibilities manifesting themselves. The value of reflecting in and on action is therefore vital to ensure the themes in the operational framework are being

Fig 10.6. 'Delight in the Everyday' exhibition: Making Everyday spaces. The installation displayed figure ground drawings and paper models of Ruthin's ways.

Fig 10.7. 'Delight in the Everyday' exhibition: Ruthn Castle gated garden model

Fig 10.8. 'Delight in the Everyday' exhibition: Clwyd Street burgage yard

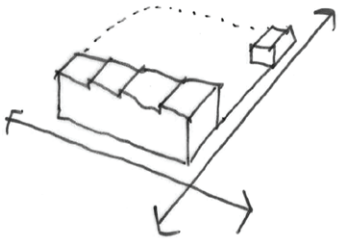
interpreted, applied and followed effectively.

The EAAE charter identifies that peer review (of method, context, process and results) is essential to maintain the quality of the design research and that this should occur during the process.[9] Peer review offered a critical oversight of the designs from multiple parties- self, tutor and peers. Generally, there was intent to review a design at a mid point and near to completion, to allow a final round of amendments before reflection on action. These peer reviews gave the opportunity to discuss the direction of the thesis with external experts as well as tutors, which is seen as vital in order to assess the direction of the process and the validity of the operational framework.

Further opportunities to exhibit or publish elements of the thesis have been sought to gather further external input on the design research. Elements of the thesis have been submitted for competitive selection of artworks for exhibition at Reflecting Wales 09.09, exhibited at Howard Gardens Gallery, Cardiff, the Welsh National Eisteddfod and at Ruthin Craft Centre and Delight in the Everyday, exhibited at Ruthin Craft Centre (figs. 10.6-10.8). The opportunity for reflection afforded by submission of material for these calls facilitates a critical and reflective process; reflection on what might be displayed and how, what the focus of the submission might be and what the relevance of the material is affords the opportunity to assess progress and relevance of the thesis.

Parts of the 'in progress' thesis have been presented at university seminars and workshops and presented at peer reviewed conferences. The process of wider peer review and the chance to engage in debate and conversation about context, process, method and design has been essential in shaping the direction of the thesis. The chance to engage with what Van Schaik calls our challengers, "*those who to some extent resist, call to account and probe what we do by holding alternative positions,*"[10] tests the robustness of the argument, the validity of the thesis and poses questions for reflection. Searching out opportunities to present and critique work frequently with others thorugh conferences and exhibitions is highly recommended.

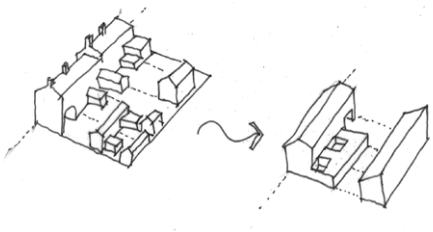
9 European Association for Architectural Education, *EAAE Charter on Architectural Research* (Leuven: European Association for Architectural Education <http://www.eaae.be/old/research.php> [accessed 19.09.14].
10 Richard Blythe and Leon Van Schaik, 'What if Design Practice Matters?' in *Design Research in Architecture: An Overview* edited by Murray Fraser (London: Ashgate, 2014) pp.53-69 (p.65).



Building reinforces place:
Monte Carasso pilot project

Positioned to reinforce weaknesses and strengthen and enhance sense of place.

- edges
- centre
- connections
- density



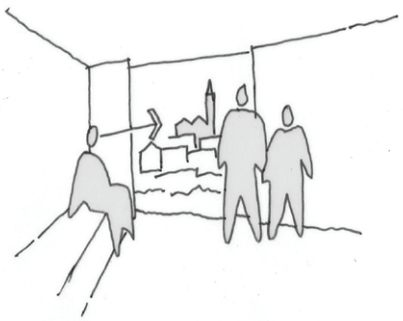
Building of its place:
Raven Lane live work housing; Infill site
An English turn applied to Monte Carasso.
Emphasises:

-as found
- ground notations
- typology
- familiar forms

Building in its place:
Ludlow Food Centre
Edge, Centre, Connecting site

German-Swiss themes applied more thoroughly to accompany English realist themes.

- abstract forms
- volumetric grain
- ways
- constellation



Building as place:
Civic School, Ruthin
Interface site

Inhabitation, belonging identified as important and missing from the framework.

- inhabitation
- grain
- view & vista
- abstraction of familiar forms
- connections & ways

Fig 10.9. The response to place in each design summarised

10.5 The design projects

This section assesses the design projects as a body of work repetitive of a design approach suited to the UK market town context. It focuses on common threads that link the design projects carried out in the thesis. The overarching journey through the thesis has been the evolution of a changing attitude toward place (figure 10.9). From reinforcing place in Monte Carasso to exploration of a building of and in its place through the Ludlow projects, the thesis culminates in exploration of a building becoming a place and enabling homecoming. This represents a change from a design being seen as focused primarily on the existing fabric to an ethical responsibility for architecture in framing and enabling everyday life as it is lived.

Throughout the designs, the wish to respond to context and embed projects in their setting has resulted in an architecture rooted in the everyday, configured around the social as well as the physical nature of a place. By the addendum to the Community School, the designs demonstrate an appreciation of the rhythms, rituals and cycles of everyday life and explore the role of architecture in framing and sustaining everyday life. This is identifiable in the importance of ways, public spaces and connections, and in particular in the consideration of how spaces may be used as part of the fabric of the town. The exploration of public spaces- for example, the bounded square that can be used as a market, outdoor cinema or a place to wait for children to emerge from the school- suggests the spaces are defined enough to be suggest how they may be used but flexible enough to be contingent, and so can become embedded in the life of the town. Different people can use the spaces and places created at different times of the day in a cycle of activity and inhabitation, embedding the building an in "*the theatre of everyday life.*"[11]

The designs in Ludlow suggest an affiliation with the everyday approaches English Realism. The form, material and detail has similarities to projects by Sergison Bates in particular; the projects are derivative of their approach studied and interpreted through their writing, drawings and built projects. The influence of German-Swiss architecture is less significant, but remains evident in the abstraction, simplification and reduction of form and arrangement in a constellation plan. The design evolution in Ruthin is perhaps more attributable to the author; here, the design language is a culmination of the design approach evolved through the thesis. Neither the English Realist or German-Swiss architecture dominates the design; while both are evident, the experience and design knowledge of the author has a greater influence on the design. The approach is more relaxed and mannered than in previous studies.

Some commonalities are evident in the projects. While their material varies and their form

11 Aldo Rossi, *A Scientific Autobiography* (Cambridge, Mass: MIT Press, 1981) p.53.

become more mannered, simple prismatic forms with pitched roofs are common throughout the projects for the main spaces and volumes. These follow underlying ground notations to determine scale and are repeated to create larger spaces. Fragmented into constellation plan forms, they are connected by intimate flat-roofed ways that flank outdoor spaces. While in the live-work housing these become kitchens, in the public buildings they become inhabited spaces: seating for the canteens spill out, lit by rooflights, or moments for the classrooms to appropriate these ways for small study spaces and display of work.

In their material and detail, the projects share an aspiration to create a feel of solidity and presence that suggests longevity. However, increasing regulatory demands make achieving this complex. Changes in Building Regulations requiring reductions in heat loss are generally met by increasing the layering of the building fabric. This presents challenges in how presence can be created. In the designs, the attitude toward construction changes as design becomes more critical. While in Ludlow the visual effect of material is prioritised, in Ruthin material is treated differently depending on its role. The containing wall is a thick tectonic element, sculpted to create moments for inhabitation. The buildings within the outer containing wall are a lighter weight timber frame construction with a concrete plinth to raise them above the ground. The layered construction balances the expense of the outer wall with a more cost effective solution. This clearly separates the external inhabited wall from the formally more mannered and manipulated internal world. The combination of solid, tectonic elements with a sense of presence and inhabitation where the building needs reinforces the townscape and more layered, cost effective construction internally suggest a route to achieve the aims of the thesis while also considering budgetary constraints.

Considered together, the designs identify a formal, spatial and material language that is suited to the UK market town. Despite different contexts, briefs and sites, a number of common themes such as simple pitched roof forms, use of brick, repetitive facades, permeability through ways and public spaces, and intimacy and proximity are evident. Combining a rootedness in the everyday with an artful compositional quality, the designs strengthen the sense of place while remaining distinctly contemporary. This suggests a developing approach that could have wider applicability and potential in creating contemporary architecture in market towns.

10.6 Further work

In this thesis, a place-specific approach to market towns based on an in depth engagement with place and context has been explored. While the thesis has been carried out in a specific context in Welsh Marches, the wider application of the framework is seen as an area of development. The principles identified have a wider application in market towns across the UK and beyond; indeed, the principles are seen as having potential for universal application in places with sensitive or historic fabrics.

The thesis proposes an attitude to conservation that could have applicability beyond the market town. The approach values the existing and proposes projects as a continuation, evolution and modification of what already exists in a place. It looks beyond the site to create impact at the urban scale, what Rowe terns a building as a '*piece of city.*'[12] Establishing connections, borrowing surrounding landscape and threading into the context weaves projects into the place. While referential to the traditions of building and history of place, the designs are critical of their context and attempt to suggest viable alternatives to existing situations; while not suggesting a break from the past, the projects remain open to the future and suggest new opportunities to existing problems.

The focus has been on the historic core; although peripheral development has been acknowledged and the potential of reconnecting this to the historic core explored, the nature of peripheral development has not been specifically examined. Further exploration of peripheral and edge development beyond the core would be a useful area for further research. This is particularly relevant considering the impact of the one million new homes the UK Government is proposing to build by 2020[13] and the likelihood of many towns becoming 'expansion towns', accommodating swathes of new homes. While the approach developed has an important role to play in preventing this, there remains a high likelihood of poorly connected placeless peripheral estates continuing to surround market towns.

Further opportunities exist in the growth of local action and the continuing impact of diminishing local authority funding. The on-going impact of austerity and the reduced ability of the public sector to fund statutory services such as planning and building regulations will increasingly affect market towns. The as yet unknown impact of the UK's vote to leave the European Union is likely to have a lasting effect on the economy and the construction industry, and the political fallout of this vote remains unclear. While uncertainty raises the threat of recession and further austerity measures, perhaps there exists an opportunity for communities to take control and build their own futures rather than rely of 'top down' and abstract Local

12 Peter Rowe, *Modernity and Housing* (Cambridge Mass: MIT Press, 1993) p.335.
13 Louise Smith, *Planning for new housing* (London: UK Government, 2016) p.3.

Development Plans. The potential exists to empower those people acting as stewards for their place to take their future into their own hands and commission a 'place register' based on a thorough mapping process. This has the potential to found future development on a place-specific approach, supporting the growth of compact and distinctive market towns.

11.0 BIBLIOGRAPHY

Action for market towns and The Rural Development Commission, *Market Towns: Options for a Share in the Future* (Oundle: Action for Market Towns, 1997)

Aldallal, Enis, *Site and Composition* (London: Routledge, 2016)

Alexander, Christopher, *The Timeless Way of Building* (Oxford University Press, 1979)

Alexander, Christopher, Sara Ishikawa and Murray Silverstein, *A Pattern Language: Towns Buildings Construction* (New York: Oxford University Press, 1977)

Amoroso, Nadia, *The Exposed City: Mapping the Urban Invisibles* (London: Routledge, 2010)

Sergison Bates Architects and Heinz Wirz, *Buildings* (Zurich: Quart Publ., 2012)

Aston, Michael and James Bond, *The Landscape of Towns* (London: JM Dent & Sons, 1976)

Augustin, Sally and Cindy Coleman, *The Designer's Guide to Doing Research: Applying Knowledge to Inform Design* (Hoboken, N.J: Wiley, 2012)

John Ayto, Ian Crofton & Paul Cavill, *Brewer's Britain and Ireland* (London: Chambers Harrap, 2015) <http://search.credoreference.com/content/entry/orionbritainireland/ruthin/> [accessed 02.07.15]

Greater London Authority, *London View Management Framework* (London: *Greater London Authority,* 2012)

Ballantyne, Andrew, *Architectures: Modernism and After* (Oxford: Blackwell Publishing Ltd, 2008)

Bandarin, Francesco and Ron Van Oers, *Reconnecting the City: The Historic Urban Landscape Approach and the Future of Urban Heritage* (Chichester: John Wiley & Sons, 2014)

Bandarin, Francesco and Ron van Oers, *The Historic Urban Landscape: Managing Heritage in an Urban Century* (Oxford: Wiley-Blackwell, 2012)

Bates, Stephen and Jonathan Sergison, 'Sergison Bates', *2G,* no.34 (2005)

Bates, Stephen and Jonathan Sergison, *Sergison Bates Architects: Brick-Work, Thinking and Making*, (Zurich: ETH Zürich, 2005)

Bates, Stephen and Jonathan Sergison, 'Working with Tolerance', *Arq: Architectural Research Quarterly,* 3.3 (1999), 220-234

Bauman, Irena and Bauman Lyons Architects, *How to be a Happy Architect : Bauman Lyons*

Architects (London: Black Dog, 2008)

Benedikt, Michael, *For an Architecture of Reality* (Lumen Books New York, NY, 1987)

Beresford, M. W., *New Towns of the Middle Ages: Town Plantation in England, Wales, and Gascony* (New York: Praeger, 1967)

Betsky, Aaron, *The Evolving Landscape of Architectural Affordances* (Washington DC: Architect Magazine, 2015) <http://www.architectmagazine.com/design/culture/the-evolving-landscape-of-architectural-affordances> [accessed 12.07.16]

Bhatt, Ritu, 'Christopher Alexander's Pattern Language: An Alternative Exploration of Space-Making Practices', *The Journal of Architecture,* 15 (2010), 711-729

Bianconi, Marco and Mark Tewdwr-Jones, 'The Form and Organisation of Urban Areas: Colin Buchanan and Traffic in Towns 50 Years on', *Town Planning Review,* 84 (2013), 313-336

Birksted, Jan, *Relating Architecture to Landscape* (London: Taylor & Francis, 2004)

Bishop, Peter, *The Bishop Review: The Future of Design in the Built Environment* (London: Design Council CABE, 2011)

Bone, Dan, *Town Champions: The President's Initiative,* (London & Oxford: RIBA & Alden Press, 1999)

Borasi, Giovanna, *Some Ideas on Living in London and Tokyo* (Baden: Lars Müller Publishers, 2008)

Buchanan, Peter, 'Swiss Essentialists', *Architectural Review,* 198 (1991), 18-21.

Bunt, Laura and Michael Harris, *Mass Localism: A Way to Help Small Communities Solve Big Social Challenges: Discussion Paper* (London: NESTA., 2010)

Burns, Carol and Andrea Kahn, *Site Matters: Design Concepts, Histories, and Strategies* (New York: Routledge, 2005)

CABE, *By Design. Urban Design in the Planning System: Toward Better Practice,* (London: CABE & DETR, 2000)

Caffyn, Alison, 'Market Town Regeneration; Challenges for Policy and Implementation', *Local Economy,* 19 (2004), 8-24

Campaign to Protect Rural England, *Market Towns - Losing their Character?* (London: CPRE, 2003)

Candy, Linda, 'Practice Based Research: A Guide', *CCS Report,* 1 (2006), 1-19

Carmona, Mathew, *Housing Design Quality: Through Policy, Guidance and Review* (London:

Taylor & Francis, 2001)

Carmona, Matthew and Steven Tiesdell, *The Urban Design Reader*, The Routledge Urban Reader Series, Second edn (London: Routledge, 2013)

Carter, Harold, 'The Towns of Wales : A Study in Urban Geography', (1965)

Caruso, Adam, *The Feeling of Things* (Barcelona: Ediciones Polígrafa, 2008)

Caruso, Adam, *Gardens of Experience*, Designers of the Future ; 4 (Amsterdam: Sun Architecture, 2010)

Casey, Edward, *The Fate of Place: A Philosophical History* (Berkeley: University of California Press, 1998) Castells, Manuel, *The Rise of the Network Society*, 2nd edn, 1. vols (Oxford: Blackwell, 2000)

Chamberlin, Eric R., *English Market Towns* (London: Weidenfeld and Nicolson, 1985)

Commission for Rural Communities, *Defining Rural England,* (London: Cheltenham: Commission for Rural Communities, 2007)

Conisbee, Molly and Mary Murphy, *Clone Town Britain: The Loss of Local Identity on the Nation's High Streets* (London: New Economics Foundation, 2004)

Conzen, Michael R. G. and Michael P. Conzen, *Thinking about Urban Form: Papers on Urban Morphology, 1932-1998* (Peter Lang, 2004)

Conzen, M.R.G., *Alnwick, Northumberland: A Study in Town-Plan Analysis*, no. 17 vols (London: George Philip & Son Ltd, 1960)

Corner, James M., *Taking Measures Across the American Landscape* (New Haven; London: Yale University Press, 1996)

Cosgrove, Dennis E., *Mappings* (London: Reaktion, 1999)

Countryside Agency, *State of the Coutryside 2020,* (Wetherby: Countryside Agency, 2003)

Countryside Agency, *The Countryside in and Around Towns,* (Wetherby: Countryside Agency, 2005)

Courtney, Paul and Andrew Errington, 'The Role of Small Towns in the Local Economy and some Implications for Development Policy', *Local Economy,* 15 (2001), 280-301

Cox, Elizabeth, 'Re-Imagining the High Street. Escape from Clone Town Britain', *London: New Economics Foundation,* (2010)

Croset, Pierre A., 'Luigi Snozzi and Monte Carasso: A Long-Running Experiment', *Le Visiteur,* 16 (2010), 122-124

Croset, Pierre A.*Monte Carasso: La Ricerca Di Un Centro. Un Viaggio Fotografico Di Gabriele Basilico Con Luigi Snozzi* (Baden: Lars Müller, 1996)

Cullen, Gordon, *The Concise Townscape*, (London: Architectural Press, 1971)

Davidovici, Irina, *Forms of Practice: German-Swiss Architecture 1980-2000* (Zurich: gta Verlag, 2012)

Davis, Howard, *Living Over the Store: Architecture and Local Urban Life* (Abingdon, Oxon; New York: Routledge, 2012)

de Solà-Morales, Ignasi and Sarah Whiting, *Differences: Topographies of Contemporary Architecture* (Cambridge, Mass: Cambridge Univ Press, 1997)

Denbighshire County Council, *Formal Consultation Document: Proposal to Close Ysgol Rhewl as of the 31st of August 2017 with Pupils Transferring to Ysgol Pen Barras Or Rhos Street School to Coincide with the Opening of the New School Buildings,* (Ruthin: Denbighshire County Council, 2015)

Department for Communities and Local Government, *Access to and use of Buildings: Approved Document M*, (London: Department for Communities and Local Government, 2016)

Department for Communities and Local Government, *Fire Safety: Approved Document B,* (London: Department for Communities and Local Government, 2010)

Department for Communities and Local Government, *Localism Bill: Neighbourhood Plans and Community Right to Build. Impact Assessment,* (London: Department for Communities and Local Government, 2011)

Department for Communities and Local Government, *National Planning Policy Framework,* (London: Department for Communities and Local Government, 2012)

Department for Communities and Local Government, *Planning Practice Guidance: Conserving and Enhancing the Historic Environment* (London: Department for Communities and Local Government, 2014)

Department for Education and Skills, *Building Bulletin 99: Briefing Framework for Primary School Projects* (London: Department for Education and Skills, 2014)

Deplazes, Andrea, ed., *Constructing Architecture: Materials, Processes, Structures* (Basel: Birkhauser, 2005)

Diener, Roger and Martin Steinmann, *The House and the City* (Basel: Birkhauser, 1995)

Dwelly, Tim and others, 'Under the Radar: Tracking and Supporting Rural Home-Based Business', *Report for the Commission for Rural Communities, Cheltenham, and Live Work*

Network, Penzance, (2006)

Engler, Mira, *Cut and Paste Urban Landscape: The Work of Gordon Cullen* (London: New York: Routledge, 2016)

English Heritage, *Understanding Place. Historic Character Assessment: Principles and Practice,* (Swindon: English Heritage, 2010)

Essex County Council, *A Design Guide for Residential Areas,* (Chelmsford: County Council of Essex, 1973)

European Association for Architectural Education, *EAAE Charter on Architectural Research* (Leuven: EAAE Charter on Architectural Research, 2012), <http://www.eaae.be/old/research.php> [accessed 19.09.14].

Ewing, Suzanne and Architectural Humanities Research Association, *Architecture and field/work,* (Abingdon: Routledge, 2011)

Farley, Paul, *Edgelands : Journeys into England's True Wilderness*, (London: Vintage, 2012)

Farrell, Terry, *The City as a Tangled Bank: Urban Design Versus Urban Evolution* (Chichester: John Wiley & Sons, 2014)

The Farrell Review of Architecture + the Built Environment, (London: Farrells & Department for Culture Media and Sport, 2013)

Fernández Per, Aurora, *As Built: Caruso St John Architects* (Vitoria-Gasteiz: a+t ediciones, 2005)

Findlay, Allan M. and others, 'Mobility as a Driver of Change in Rural Britain: An Analysis of the Links between Migration, Commuting and Travel to Shop Patterns', *International Journal of Population Geography,* 7 (2001), 1-15

Forster, WP, S. Coombs and R. Thomas, *The Architect and the Academy: Research through Design at the Welsh School of Architecture,* The Oxford Conference: A Re-Evaluation of Education in Architecture, (WIT Press, 2008)

Forster, Wayne, Amanda Heal and Rhian Thomas, 'Building Simply: Challenges and Dilemmas', *Arq: Architectural Research Quarterly,* 11.2 (2007), 138-150

Forty, Adrian, *Words and Buildings: A Vocabulary of Modern Architecture* (London: Thames & Hudson, 2004)

Frampton, Kenneth, *Modern Architecture: A Critical History*, World of Art, 4th edn (London: Thames & Hudson, 2007)

Frampton, Kenneth, 'Prospects for a Critical Regionalism', *Perspecta,* 20 (1983), 147-162

Frampton, Kenneth,*Studies in Tectonic Culture : The Poetics of Construction in Nineteenth and Twentieth Century Architecture* (Cambridge, Mass.; London: MIT Press, 1995)

Fraser, Murray, *Design Research in Architecture: An Overview* (London: Ashgate, 2014)

Friedman, Avi, *Planning Small and Mid-Sized Towns: Designing and Retrofitting for Sustainability* (New York & London: Routledge, 2014)

Gallent, Nick, Johan Andersson and Marco Bianconi, *Planning on the Edge: The Context for Planning at the Rural-Urban Fringe* (London: Routledge, 2006)

Gehl, Jan, *Life between Buildings: Using Public Space* (Washington, D.C; London: Island Press, 2011)

Gehl, Jan and Lars Gemzoe, *New City Spaces* (Copenhagen: Danish Architectural Press, 2001)

Gehl, Jan, Lars Gemzoe and Karen Steenhard, *Public Spaces - Public Life: Copenhagen 1996*, 2nd edn (Copenhagen: Danish Architectural Press and the Royal Danish Academy of Fine Arts School of Architecture Press, 1999)

Gehl, Jan and Birgitte Svarre, *How to Study Public Life* (Washington: Island Press, 2013)

Girouard, Mark, *Cities & People: A Social and Architectural History* (London; New Haven: Yale University Press, 1985) >

Girouard, Mark, *The English Town* (Yale University Press, 1990)

Gosling, David, *Gordon Cullen : Visions of Urban Design* (London: Academy Editions, 1996)

Grandorge, David, *Under the Arches, The Architectural Review,* 235.1407 (2014) 72-79

Groat, Linda and David Wang, *Architectural Research Methods* (New York: Wiley, 2002)

Guillery, Peter, *Built from Below: British Architecture and the Vernacular* (London: Routledge, 2010)

Gunn, Simon, 'The Buchanan Report, Environment and the Problem of Traffic in 1960s Britain', *Twentieth Century British History,* 22.4 (2011), 521-542

Hanson, Steve, *Small Towns, Austere Times: The Dialectics of Deracinated Localism* (John Hunt Publishing, 2014)

Harries, Karsten, *The Ethical Function of Architecture* (Cambridge, Mass.; London: MIT Press, 1997)

Harris, Steven and Deborah Berke, *Architecture of the Everyday* (New York: Princeton Architectural Press, 1997)

Hart, Julian, *Towns and Cities: Function in Form: Urban Structures, Economics and Society*, Design and the Built Environment Series ()

Harvey, David, *Rebel Cities: From the Right to the City to the Urban Revolution* (New York: Verso, 2012)

Heal, Amanda, 'Building Simply: An Investigation into the Potential for Building Simply in the UK' (unpublished M Phil, Cardiff university, 2010)

Heritage, English and CABE, *Building in Context* (London: English Heritage, 2001)

Hertzberger, Herman, *Space and Learning: Lessons in Architecture 3*, English edn (Rotterdam: 010 Publishers, 2008)

Hertzberger, Herman, *Lessons for Students in Architecture* (Rotterdam: Uitgeverij 010, 1991)

Hetherington, Peter, *Whose Land is our Land?: The use and Abuse of Britain's Forgotten Acres* (Policy Press, 2015)

Hindle, Brian P., *Medieval Town Plans*, Shire Archaeology; 62 (Princes Risborough: Shire, 1990)

Holliss, Frances, *Beyond Live/work: The Architecture of Home-Based Work* (Routledge, 2015)

Holliss, Frances, *The Work Home*, (London: Work Home Project, 2015) <http://www.theworkhome.com/> [accessed 02.09.15].

Hoskins, W. G., *The Making of the English Landscape* (London: Penguin, 1985)

Howe, Michael and others, *Evolving Norms of British Housing* (London: RIBA Publishing, 2008)

Howkins, Alun, *The Death of Rural England : A Social History of the Countryside since 1900* (London: Routledge, 2003)

Ibelings, Hans, *Supermodernism : Architecture in the Age of Globalization* (Rotterdam: NAi, 1998)

Ingold, Tim, *Making : Anthropology, Archaeology, Art and Architecture* (London: Routledge 2013)

Ingold, Tim, *The Perception of the Environment : Essays on Livelihood, Dwelling and Skill* (London: Routledge, 2000)

Jenkins, Jennifer, *Remaking the Landscape: The Changing Face of Britain* (London: Profile, 2002)

Jiven, Gunila and Peter Larkham, 'Sense of Place, Authenticity and Character: A Commentry', *Journal of Urban Design*, 8 (2003), 67-81

Johnston, Pamela, Rosa Ainley and Clare Barrett, *Architecture is Not made with the Brain: The Labour of Alison and Peter Smithson*, (London: Architectural Association, 2005)

Keeble, Lewis, *Principles and Practice of Town and Country Planning*, 4th edn (Estates Gazette, 1969)

Keys, Mike and Stephanie Laslett, *Dwelling - Accordia : Feilden Clegg Bradley Studios, Maccreanor Lavington, Alison Brooks Architects, Grant Associates* (London: Black Dog, 2009)

Knox, Paul L., *Small Town Sustainability: Economic, Social, and Environmental Innovation* (Basel: Birkhäuser, 2009)

Krucker, Bruno, *Complex Ordinariness: The Upper Lawn Pavilion by Alison and Peter Smithson* (Zurich: GTA, 2002)

Krucker, Bruno, 'Complex Ordinariness: The Upper Lawn Pavilion by Alison & Peter Smithson'', *Daidalos*, 75 (2000)

Lawson, Bryan, *How Designers Think: The Design Process Demystified*, 4th edn (Oxford: Architectural, 2006)

Lea, David, 'Fake Or Real?', *Planet*, 138 (1999/2000), 77-83

Lefaivre, Liane and Alexander Tzonis, *Critical Regionalism: Architecture and Identity in a Globalized World* (Prestel New York, 2003)

Light, Russell, 'Three Projects, Calver, Derbyshire', *Arq: Architectural Research Quarterly,* 1.2 (1995), 22-29

Lilley, Keith, 'Urban Landscapes and the Cultural Politics of Territorial Control in Anglo-Norman England', *Landscape Research,* 24.1 (1999), 5-23

Littlefield, David, 'Bankside Urban Forest', *Architectural Design,* 82 (2012), 44-49

Lloyd, David W., *The Making of English Towns: 2000 Years of Evolution*, New edn (Gollancz, 1984)

Lucan, Jacques and Bruno Marchand, 'A Matter of Art: Contemporary Architecture in Switzerland', (2001)

Ludlow Visitor Information Service, *The Ludlow Website,* < http://www.ludlow.org.uk/architecture_buildings.html> (Ludlow Visitor Information Centre, 2016) [accessed 03.09.15].

Lynch, Kevin, *The Image of the City* (Cambridge Mass; London: MIT Press, 1960)

Macarthur, John, *The Picturesque: Architecture, Disgust and Other Irregularities* (London: Routledge, 2007)

Macarthur, John, ''the Revenge of the Picturesque', Redux', *The Journal of Architecture,* 17 (2012), 643-653

Macarthur, John and Mathew Aitchison, 'Oxford Versus the Bath Road: Empiricism and Romanticism in the Architectural Review's Picturesque Revival', *The Journal of Architecture,* 17.1 (2012), 51-61

Macleod, Donald, *'Schools should be the Heart of Communities', The Guardian,* (Tuesday 10th February 2009) <http://www.theguardian.com/education/2009/feb/10/academies-community-opening> [accessed 07.07.15]

Mäkelä, Maarit, and Nithikul Nimkulrat, *Reflection and Documentation in Practice-Led Research,* Proceedings of the Nordic Design Research Conference 2011, (Helsinki: Nordes, 2011)

Mayor of London's Office, London Housing Design Guide (London: Greater London Authority, 2010).

Mayor of London's Office, *London View Management Framework: Supplementary Planning Guidance*, (London: Greater London Authority, 2012)

McKean, John, *Giancarlo De Carlo : Layered Places* (Stuttgart ; London: Edition Axel Menges, 2003)

McLaren, Susan, *Designerly Thinking,* (Livingstone: Education Scotland, 2013) <http://www.educationscotland.gov.uk/Images/Designerlythinkingarticle_tcm4-654736.pdf> [accessed 13.04.15]

McVicar, Mhairi, 'Memory and Progress: Confessions in a Flagstone Wall', *Arq: Architectural Research Quarterly,* 11 (2007), 198-208

Meili, Marcel, 'A Few Remarks Concerning Swiss-German Architecture', *A+U- Architecture and Urbanism, 309* (1996), 24-27

Melhuish, Clare, 'Home-Working- the New Peasantry Or a Regenerative Impetus for Cities?', *Architectural Review,* 229.1369 (2011), 29-29

Milbourne, Paul, *Rural Wales in the Twenty-First Century: Society, Economy and Environment* (Cardiff: University of Wales Press, 2011)

Miroslav Šik, Heinz Wirz and Benjamin Liebelt, *Miroslav Šik : Architectur 1988-2012* (Luzern: Quart Verlag, 2012)

Miroslav, Šik, *Now the Ensemble* (Zurich: Lars Mueller Publishers GmbH, 2012)

Mitchell, William J., *City of Bits: Space, Place, and the Infobahn* (MIT, 1995)

Moravánszky, Ákos, 'Concrete Constructs: The Limits of Rationalism in Swiss Architecture', *Architectural Design*, 77 (2007), 30-35

Morris, Anthony E. J., *History of Urban Form: Before the Industrial Revolutions*, 3rd edn (Harlow: Longman, 1994)

Morris, Gordon, *Small Towns, Big Societies* (Great Britain: Small Towns for Tomorrow, 2011)

Mumford, Lewis, *The City in History: Its Origins, its Transformations, and its Prospects*, (Houghton Mifflin Harcourt, 1961)

Murphy, Orla, *Town : Origins, Morphology and Future* (Westport: Orla Murphy, 2012)

Nakamura, Toshio, *Peter Zumthor* (Tokyo: A+U Publishing, 1998)

National Assembly for Wales Enterprise and Business Committee, *Regeneration of Town Centres,* (Cardiff: National Assembly for Wales, 2012)

Nesbitt, Kate, *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory 1965-1995* (New York: Princeton Architectural Press, 1996)

Nicolin, Pierluigi, 'New Realists', *Lotus,* 116 (2003), 4-33

Nielson, Graham, *Ludlow: The Loveliest Town in England?,* (Open University, 2011) <http://www.open.edu/openlearn/society/politics-policy-people/sociology/ludlow-the-loveliest-town-england> [accessed 24 June 2016].

Norberg-Schulz, Christian, 'Architecture- Meaning and Place: Selected Essays', (New York: Electa/Rizzoli, 1988)

Norberg-Schulz, Christian 'Architecture: Presence, Language and Place', (Milan : Skira Editore, 2000)

Norberg-Schulz, Christian *Existence, Space and Architecture* (New York: Paeger Publisher, 1971)

Norberg-Schulz, Christian *Genius Loci : Towards a Phenomenology of Architecture* (New York : Rizzoli, 1980)

O'Donnell, Sheila, *O'Donnell + Tuomey : Selected Works* (New York; Enfield: Princeton Architectural; Publishers Group, 2006)

Olgiati, Valerio, *Olgiati: A Lecture by Valerio Olgiati* (Basel: Birkhauser, 2011)

O'Toole, Shane, 'The Elevated Ordinary', *Architectural Review,* 239 (2016), 84-94

Owen, Stephen, 'The Appearance of English Hill Towns in the Landscape', *Journal of Urban Design,* 8.1 (2003), 3-25

Owen, Stephen, 'Classic English Hill Towns: Ways of Looking at the External Appearance of Settlements', *Journal of Urban Design,* 12.1 (2007), 93-116

Owen, Stephen, 'English Hill Towns: Some further Steps in Appreciating their Identity in the Wider Landscape', *Landscape Research,* 30.1 (2005), 57-79

Owen, Stephen, 'The Town Observed: Looking at Settlements from the Surrounding Landscape', *Journal of Urban Design,* 14.4 (2009), 537-555

Pallasmaa, Juhani, *The Thinking Hand: Existential and Embodied Wisdom in Architecture* (Chichester: Wiley, 2009)

Pallasmaa, Juhani, 'Tradition and Modernity: The Feasibility of Regional Architecture in Post-Modern Society', *Architecture Review,* 183.1095 (1998), 27-45

Passinmaki, Pekka, 'Architecture Beyond Signs and Symbols: Zumthor's Response to the Problems of Aesthetics', *Arq : Architectural Research Quarterly,* 19.4 (2015), 329-332

Paterson, Elaine, 'Quality New Development in English Market Towns: Case Studies Examining the Role of Town Planning', *Journal of Urban Design,* 11.2 (2006), 225-241

Pevsner, Nikolaus and Mathew Aitchison, *Visual Planning and the Picturesque* (Los Angeles: Getty Publications, 2010)

Platt, Colin, *The English Medieval Town* (Secker and Warburg, 1976)

Potts, Ruth, Andrew Simms and Petra Kjell, *Clone Town Britain: The Survey Results on the Bland State of the Nation,* (London: New Economics Foundation, 2005)

Powe, Neil and Susannah Gunn, 'Housing Development in Market Towns: Making a Success of 'Local Service Centres?', *Town Planning Review,* 79.1 (2008), 125-148

Powe, N. A. and T. Shaw, 'Exploring the Current and Future Role of Market Towns in Servicing their Hinterlands: A Case Study of Alnwick in the North East of England', *Journal of Rural Studies,* 20.4 (2004), 405-418

Powe, Neil A. and Trevor Hart, 'Market Towns: Understanding and Maintaining Functionality', *The Town Planning Review,* 79.4 (2008), 347-370

Powe, Neil and Trevor Hart, 'Housing Development and Small Town Residential Desirability: Valued Aspects, Resident Attitudes and Growth Management', *Town Planning Review,* 82.3 (2011), 317-340

Powe, Neil, Rhona Pringle and Trevor Hart, 'Matching the Process to the Challenge within Small Town Regeneration', *Town Planning Review,* 86.2 (2015), 177-202

Power, Neil, Trevor Hart and Tim Shaw, *Market Towns : Roles, Challenges and Prospects*

(London: Routledge, 2007)

Rana, Sunhail, *Love My Town*, http://www.lovemytown.co.uk/populations/TownsTable1.asp {accessed 13.03.16]

Reichlin, Bruno and Christoph Schaub, *Building in the Mountains: Recent Architecture in the Graubunden* (Barcelona: G Gilli, 2000)

RIBA, *Guide to Localism Opportunities for Architects: Part One: Neighbourhood Planning,* (London: RIBA, 2011)

RIBA *What is Architectural Research? Architectural Research: Three Myths and One Model,* (London: RIBA, 2007)

Rightmove, *The UK's Number One Property Search Website*, http://www.rightmove.co.uk (Rightmove, 2016)

Risselada, Max, *Alison and Peter Smithson: A Critical Anthology* (Barcelona: Poli□grafa, 2011) >

Roaf, Susan and A. Bairstow, *The Oxford Conference: A Re-Evaluation of Education in Architecture* (Southampton: WIT, 2008)

Robbins, David, ed., *The Independent Group: Postwar Britain and the Aesthetics of Plenty* (Cambridge, Mass; London: MIT Press, 1990)

Rogers, Louise and Diana Periton, eds., *The Art of the Process: Architectural Design in Practice* (London: RIBA, 1993)

Rogers, Louise, Diana Periton and The Art of the Process. Exhibition London, *The Art of the Process: Architectural Design in Practice* (London: RIBA, 1993)

Rossi, Aldo, *The Architecture of the City* (Cambridge, Mass; London: MIT, 1982)

Rossi, Aldo, *A Scientific Autobiography*, (Cambridge, Mass.: MIT Press, 1981)

Rowe, Colin and Fred Koetter, *Collage City* (Cambridge, Mass: MIT Press, 1978)

Rowe, Peter G., *Modernity and Housing* (Cambridge, Mass: MIT Press, 1993)

Ryan, Raymund and Iain Sinclair, *Gritty Brits: New London Architecture* (Carnegie Museum of Art, Heinz Architectural Center, 2006)

Ryan, Raymund, 'Raffaele Cavadini: Municipal Structures in Iragna, Switzerland', *A+U,* 4.331 (1998), 46-59

Salter, Peter, *Four Houses in London, a 'back-Lot' Development, an Example of Packed Urban Dwellings in which Privacy, Quietness and Defensible Space are of Strategic Importance,* (Cardiff: Cardiff University, u.d.)

Schittich, Christian and Florian Musso, *Building Simply* (Basel: Birkhäuser, 2005)

Schofield, John and Alan Vince, *Medieval Towns* (Leicester University Press, 1994)

Schon, Donald A., *Educating the Reflective Practitioner*, The Jossey-Bass Higher Education Series (San Francisco ; London: Jossey-Bass, 1987)

Schon, Donald A., *The Reflective Practitioner : How Professionals Think in Action* (New York: Basic Books, 1983)

Seamon, David and Robert Mugerauer, *Dwelling, Place and Environment: Towards a Phenomenology of Person and World* (Malabar, Fla: Krieger Pub. Co, 2000)

Self, Pamela, 'Material Presence and the Mystery of the Object', *Arq: Architectural Research Quarterly,* 6.2 (2002), 190-192

Sepe, Marichela, *Planning and Place in the City: Mapping Place Identity* (London: Routledge, 2013)

Sepe, Marichela and Michael Pitt, 'The Characters of Place in Urban Design', *URBAN DESIGN International,* 19.3 (2014), 215-227

Sergison Bates architects., *Sergison Bates Architects : Brick-Work: Thinking and Making* (Zürich: Gta, Institut for the History and Theory of Architecture, Dept. of Architecture, ETH Zürich, 2005)

Sergison, Jonathan and Stephen Bates, *Papers : A Collection of Illustrated Papers Written between 1996 - 2001* (London: Sergison Bates Architects, 2001)

Sergison, Jonathan and Stephen Bates, *Papers 2* (Barcelona; London: Editorial Gustavo Gili; Sergison Bates architects, 2007)

Sergison, Jonathan and Stephen Bates, *Papers 3* (Lucerne: Quart, 2016)

Shaffrey, Patrick, *The Irish Town: An Approach to Survival* (Dublin: O'Brien Press, 1975)

Shoard, Marion, 'Edgelands of Promise', *Landscapes,* 1.2 (2000), 74-93

Šik, Miroslav and Jennifer Taylor, *And Now the Ensemble!!!,* (Zurich: Lars Mueller Publishers, 2012)

Skea, Ralph, 'The Strengths and Weaknesses of Conservation Areas', *Journal of Urban Design,* 1.2 (1996), 215-228

Small Towns for Tomorrow , *Small Towns of the Future, Not the Past* (Great Britain: Small Towns for Tomorrow, 2011)

Smith, Korydon H., *Introducing Architectural Theory: Debating a Discipline* (New York: Routledge, 2012)

Smith, Louise, *Planning for New Housing,* (London: UK Government, 2016)

Smithson, Alison and Peter Smithson, *Italian Thoughts* (Sweden: S.N., 1993)

Smithson, Alison, *Team 10 Primer* (London: Studio Vista, 1968)

Smithson, Alison M. and Peter Smithson, *The Charged Void: Architecture* (New York; Great Britain: Monacelli Press, 2001)

Smithson, Alison M. and Peter Smithson, *The Charged Void: Urbanism* (New York; Great Britain: Monacelli Press, 2005)

Smithson, Alison and Peter Smithson, *Climate Register* (London: Architectural Association, 1994)

Stevenson, Angus and Maurice Waite, *Concise Oxford English Dictionary,* 12th edn (Oxford; New York: Oxford University Press, 2011)

Disch, Peter, *Luigi Snozzi : Costruzioni e Progetti, 1958-* (Lugano: ADV, 1994)

Disch, Peter, *Luigi Snozzi : L'Opera Completa = the Complete Work* (Lugano: ADV, 2003)

Sola-Morales, Ignasi d., *Mediations in Architecture and in the Urban Landscape* (Luzern: Quart, 2001)

Soulsby, Ian, *The Towns of Medieval Wales: A Study of their History, Archaeology and Early Topography* (Chichester: Phillimore, 1983)

South East Regional Research Laboratory, *A Review of Urban and Rural Area Definition* (Birkbeck College: South East Regional Research Laboratory, 2002)

Spier, Steven, Martin Tschanz and Christian Richters, *Swiss made: New Architecture from Switzerland* (London: Thames & Hudson, 2003)

Steinmann, Martin and Giairo Daghini, 'Recent Architectures in Graubunden', *A&U,* 3.331 (2000), 4-7

Switzerland. Bundesamt fur Kultur., *Monte Carasso: La Ricerca Di Un Centro : Un Viaggio Fotografico Di Gabriele Basilico Con Luigi Snozzi* (Baden: Swiss Federal Office of Culture with Lars Müller, 1996)

Taylor, Matthew, *Living, Working Countryside: The Taylor Review of Rural Economy and Affordable Housing,* (London: Department for Communities and Local Government, 2008)

Till, Jeremy, *Architecture Depends* (Cambridge, Mass; London: MIT, 2009)

Tonkiss, Fran, *Cities by Design: The Social Life of Urban Form* (Cambridge: Polity, 2013)

Tuomey, John, *Architecture, Craft and Culture: Reflections on the Work of O'Donnell + Tuomey* (Kinsale: Gandon Editions, 2008)

Turley, *Neighbourhood Planning: Plan and Deliver?* (London: Turley, 2012)

Tzonis, Alexander and Liane Lefaivre, 'Why Critical Regionalism Today?', *A+U, 5* (1990), 236

United Nations Human Settlements Programme, *Planning Sustainable Cities: Global Report on Human Settlements 2009* (London: Earthscan, 2009) >

Unwin, Simon, *Analysing Architecture* (London: Routledge, 1997)

Unwin, Simon, *The Ten Most Influential Buildings in History: Architecture's Archetypes* (London: Routledge, 2016)

Unwin, Simon, *Twenty Buildings Every Architect should Understand* (London: Routledge, 2010)

Urban Task Force, *Towards Strong Urban Renaissance,* (London: Urban Task Force, 2005)

Ursprung, Philip and Steven Lindberg, *Caruso St. John: Almost Everything* (Barcelona: Ediciones Polígrafa, 2008)

Vervloesum, Els, Bruno De Meulder and Andre Loeckx, *Urban Renewal in Flanders (2002-2011): A Particular Practice in Europe* (Brussells: ASP, 2013)

Vetch, Jamie, 'Market Towns: Moving to the Future', *Urban Design,* 129 (2014), 15-18

Vidler, Anthony, 'Troubles in Theory Part 2: Picturesque to Postmodernism', *Architectural Review,* 231.1379 (2012), 78-83

Waite, Richard, 'Studio BAAD Scheme Triggers Death Threats: Practice Subjected to Abuse After Hebden Bridge Plans are Submitted', *Architects' Journal,* 228.8 (2008), 5

Wales Rural Observatory, *Small and Market Towns in Wales and their Hinterlands,* (Cardiff: Wales Rural Observatory, 2007)

Warren, John, John Worthington and Sue Taylor, *Context: New Buildings in Historic Settings* (Oxford: Architectural Press, 1998)

Webster, Helena, ed., *Modernism without Rhetoric: Essays on the Work of Alison and Peter Smithson* (London: Academy, 1997)

Welsh Government, *Vibrant and Viable Places: New Regeneration Framework,* (Cardiff: Welsh Government, 2012)

Whistler, William M. and David Reed, 'Townscape as a Philosophy of Urban Design', (Monticello, Ill.: Council of Planning Librarians, 1977)

Whitehand, Jeremy W., 'British Urban Morphology: The Conzenion Tradition', *Urban Morphology,* 5.2 (2001), 103-109

Whitehand, Jeremy W., *Conzenian Urban Morphology and Urban Landscapes,* Proceedings of the 6th International Space Syntax Symposium, (2007)

Whitehand, J. W. R., Ivor Samuels and Michael P. Conzen, 'Conzen, M.R.G. 1960: Alnwick, Northumberland: A Study in Town-Plan Analysis. Institute of British Geographers Publication 27. London: George Philip', *Progress in Human Geography,* 33.6 (2009), 859-864

Williams, David, *Market Town Wales* (Cardiff: Graffeg, 2010)

Williams, Raymond, *The Country and the City* (London: Chatto & Windus, 1973)

Woods, Michael, 'Market Towns in Rural Wales: A Differentiated Geography', in *Rural Wales in the Twenty-First Century: Society, Economy and Environment*, ed. by Paul Milbourne (Cardiff: University of Wales Press, 2011), pp. 149-168

Woods, Michael, *Rural* (London: Routledge, 2010)

Worskett, Roy, *The Character of Towns: An Approach to Conservation* (London: Architectural Press, 1969)

Yorkshire Forward, *Renaissance Market Town Programme: Car Parking Research,* (Leeds: Yorkshire Forward, 2007)

Zucchi, Benedict, *Giancarlo De Carlo* (Oxford: Butterworth Architecture, 1992)

Zumthor, Peter, *Peter Zumthor, 1985-2013 : Buildings and Projects* (Zurich: Scheidegger & Spiess, 2014)

Zumthor, Peter, *Atmospheres: Architectural Environments, Surrounding Objects* (Basel: Birkhäuser, 2006)

Zumthor, Peter, *Thinking Architecture*, 2nd, expanded edn (Basel ; Boston: Birkhäuser, 2006)