

MODES OF LINKING ORGANISATIONS WITH SPACE: A HISTORICAL ACCOUNT OF THE EVOLUTION OF DEGW'S CONCEPTS AND METHODS

Hiral Patel

Welsh School of Architecture, Cardiff University

Patelh18@cardiff.ac.uk

ABSTRACT

Purpose

The purpose of this paper is to investigate methods used to create relationships between organisations and space in the knowledge economy. The empirical work unpacks the evolution of concepts and methods of a pioneering workplace design consultancy DEGW. projects in order to understand the spatial influences of changing organisational practices.

Theory

Adopting John Law's view that method enacts reality, DEGW's world view and concepts could be accessed by studying their methods of working. DEGW's methods as enacted in their projects are their modes of linking space with their clients' organisational practices.

Design/methodology/approach

Curation of the DEGW 'living' archive was used as an archival research method to make sense of the DEGW archive. The methods consisted of discussions with DEGW members, analysing the archival materials and curating an exhibition.

Findings

DEGW methods evolve from considering space in terms of solely physical and quantitative terms, towards a more complex interaction between space and organisational practices. This shift also resonates with the changes in the working practices and a movement towards distributed working in the knowledge economy.

Originality/value

There is a growing interest to understand the relationship between organisations and space. This interest has been articulated as the spatial turn in organisation studies. This paper presents new empirical work drawing from the DEGW archive for a better understanding of methods that are used to create relationships between space and changing organisational practices in the knowledge economy.

KEYWORDS

archival research, curation, DEGW, organisational practices, workplace design

1 LINKING ORGANISATION AND SPACE THROUGH DESIGN

The organisation studies field has recently seen a ‘spatial turn’ (Kornberger and Clegg, 2004; Marrewijk and Yanow, 2010). This canon has been substantiated by various empirical studies exploring the relationship between organisations and building design (van Marrewijk, 2009; Hirst, 2011; Decker, 2014). However, very few studies analyse the design methods that are deployed to link organisations and space (cf. Sailer and Thomas 2020; Gillen et al. 2019). Sailer and Thomas (2020) posited a lack of research that investigates the fit between an organisation and internal workplace layout. However, such endeavor to understand relationship between organisations and interior layouts could be traced back to Frank Duffy’s doctoral dissertation at the Princeton University:

“Assuming the independence of these two basic pairs of dimensions — Interaction and Subdivision, and Bureaucracy and Differentiation — a hypothetical model is constructed which distinguishes between types of office organization (highly bureaucratic and highly interactive; highly bureaucratic but low in interactivity, etc) and types of layout (highly differentiated, low in subdivision; highly differentiated, highly subdivided etc.)” (p.iv; Duffy 1974)

Frank Duffy’s dissertation was a key intellectual foundation of DEGW who were an architectural and space planning consultancy specialising in workplace design. DEGW became a prominent actor in shaping the field of office space planning, internationally, by enriching architectural knowledge through their research. This paper investigates DEGW’s methods to understand how they conceptualised the relationship between organisations and space.

2 INVESTIGATING DEGW’S METHODS

This paper draws on the research around the DEGW Archive, which is located at the Special Collections at the University of Reading.¹ The archive contains DEGW’s project consultancy reports as well as their company documents covering their work from 1971 to 1997. The consultancy documents often report the methods that were used on a project and this paper presents an analysis of the reports to trace the evolution of DEGW’s methods and grasp the conceptual schema that DEGW adopted in their work. Frank Duffy and other members of DEGW have an extensive publication record. However, it is through this archival analysis of project reports, that a clear connection could be traced between the ideas that DEGW members have published and how they were applied on the projects.

A method can be seen as performative of reality. As Law (2004) suggests *“Method is not, I have argued, a more or less successful set of procedures for reporting on a given reality. Rather it is performative. It helps to produce realities”* (p.143). This paper explores the implications of adopting such an understanding of the method that workplace designers use. By analysing the methods adopted by DEGW, insights can be gained into DEGW’s worldviews, their concepts and their realities to understand the framing of the relationship between organisation and space.

¹ <http://www.reading.ac.uk/architecture/degw-archive.aspx>

3 METHODOLOGY

A series of pop-up exhibitions were organised along with lectures and workshop as part of the process to unpack the DEGW archive. Curating was mobilised as a mode of doing research in the archive as well as in fostering a dialogue with members of DEGW network with an intent to relate the archive to current concerns facing the built environment. This approach is akin to ‘Curating Sociology’ “*as a methodological commitment to collaborative knowledge production for creative public intervention and engagement*” (p.43, Puwar & Sharma, 2012). Art curator Hans-Ulrich Obrist suggests that the role of professional curator involves: preservation of artefacts, selection of new works to be added to a collection, undertaking scholarly research into the collected artefacts and making exhibitions (Obrist 2014). While preservation of the materials in the DEGW archive is carried out by professional archivists at the Special Collections department of the University of Reading, the latter three activities were collaboratively conducted with the archivists and the members of DEGW network. Curating as a social practice (Kreps 2003) opens the potential to explore relationships between archival materials and DEGW members who were involved in creating and using those materials. Curating thus supports conceptualising the archive as ‘a living archive’ (Hall 2001), not just to open the possibility of connecting new materials to the archive, but to also enable learning from the archive to respond and reframe current concerns.

The design methods developed and used by DEGW were analysed to understand their conceptual framework while curating the ‘DEGW design methods’ exhibition in 2016. This public exhibition accompanied the first DEGW Foundation Lecture by John Worthington, co-founder of DEGW. The exhibition presented an alternative narrative to that of John Worthington’s regarding the development of DEGW as gleaned from the DEGW archive. Various project reports in the DEGW archive were studied to understand and articulate the methods of DEGW to link organisations and buildings. The archival reports related to DEGW projects are referenced in the footnotes in this paper. Three DEGW design methods are discussed here: space standards, space-utilization and time-utilization.

4 METHOD 1: SPACE STANDARDS

According to DEGW, workplace standards codified the amount of space, degree of enclosure and type of furniture each grade of staff was entitled to. Space standards were used to test a building’s ability to suit the user client’s needs and ensure the fit of the building for the organization.³ Space standards were initially determined on the basis of the staff grade.⁴ Even within a given staff grade, the standards varied to suit types of work.⁵ Based on their database which was gathered by working with different organisations, the consultancy was offered to clients to benchmark their standards. Different workplace standards also required different furniture configuration, which required working closing with the furniture manufacturer to develop furniture systems. This was the case with their client Electricity Supply Board in

³ Making premises work, DEGW A/86/26, 1985

⁴ Office accommodation study for Sharp MacManus Ltd., DEGW A/258/1, 1971

⁵ New HQ building Geneva, Digital Equipment Corporation International (Europe)), DEGW A/98/4, 1976

Dublin.⁶ During the 1980s, the standards had to be revised to accommodate emerging information technology⁷, and particularly in case of desks on the dealing floors in the City⁸.

5 METHOD 2: SPACE UTILIZATION

Space utilization was initially measured as net usable area and circulation area.⁹ This kind of quantification allowed estimating the growth of the firm that could happen in a given building, by projecting the space requirements (derived using space standards) commensurate with staff projections.^{10,11} Such analysis was also useful to inform architects' designs and review the performance of the design proposals.¹² Space utilization analysis was also carried out for whole property stock of client organisations, to advice on the use of existing space and possibilities for rationalising the locations of their business units.¹³ Using a set of definitions for building area, the efficiencies of various buildings could be compared and could inform alteration of internal layouts.¹⁴ A software tool Space '81, also usable by non-specialist client users, was developed to assist space utilization analysis. Over the years, the definitions of areas measured were developed to form 'Space budget', the total space requirement of an organisation.¹⁵

6 METHOD 3: TIME UTILIZATION

Time utilization method was developed to address increasing economic pressures on occupancy costs.¹⁶ The consultancy for Hewlett Packard's field-based engineers, dating 1980, demonstrates how increasing pressure on the space could be relieved by creating shared desks for field-based engineers, Hewlett Packard.¹⁷ The application of this method to design DEGW's own offices led to six categories of users and a floor plan with a combination of individually owned and bookable spaces.¹⁸ The six categories of users were: the nomadic worker, team resident, independent, manager of multiple teams, support and the visitor. The DEGW office redesign was an early application of the activity-based working approach. The user categories were

⁶ Re-location of Sales Department, Electricity Supply Board Dublin, DEGW A/108/4, 1978.

⁷ Impact of information technology on office floors at Truman's Brewery, Brick Lane, DEGW A/297/1, 1983.

⁸ Dealing floors, DEGW, DEGW A/84/1, 1984.

⁹ Feasibility Study for DOW Corning International, DEGW A/100/1, 1972.

¹⁰ Making Better Use of 54 Lombard Street, Barclays Bank, DEGW A/21/4, 1981

¹¹ Review of Space Requirements to 1986, American Express, DEGW A/6/3, 1982

¹² Hammersmith Development: a report on building depths for Fosters Associates, DEGW A/116/1, 1977.

¹³ Space Study, for Scottish and Newcastle Breweries, DEGW A/253/1, 1978.

¹⁴ Space Requirements Report for 19-20 Berners St, American Express, DEGW A/6/2, 1974.

¹⁵ From briefing to design, DEGW A/86/19, 1993.

¹⁶ Integrating People, Processes and Places, DEGW, DEGW A/86/25, 1996.

¹⁷ Study for Field Engineers Workstations, Hewlett Packard (HP), DEGW A/141/1, 1980.

¹⁸ DEGW brochure, Giffone Collection.

derived through the observations of time utilization survey.¹⁹ The observations of DEGW office are also comparable to those of Rank Xerox²⁰.

7 DISCUSSION: CONCEPTUAL FRAMEWORK OF DEGW

One of the influential concept developed by DEGW is thinking of buildings in layers. The origins of this concept could be found in a 1970's publication by the DEGW co-founders Frank Duffy and John Worthington, where the building layers are thought of as shell, scenery and sets (Duffy and Worthington 1972). The classification and names of the layers have evolved over time in DEGW's work. However, the idea of a building as different layers changing at a different rate of time remained. The concept was widely disseminated and popularised by the Stuart Brand in his discussion of DEGW's work (Brand 1997). DEGW's work was ingrained with the fact that buildings change over time (Patel and Green 2020). The briefing and decisions pertaining to 'Shell' (long term) and 'Scenery' (short term) were advised to be separated to enhance the adaptability of buildings. The growth of an organisation meant that either the scenery had to be changed in the short term, or the shell of the building itself had to be changed in longer term. This was evident in the project reports discussed under space utilization method. Sailer and Thomas (2020) argue that the fit between an organisation and internal layout is not perfect as organisations continuously evolve. It can be learned from DEGW's work that the conception of buildings need to reflect such view as well. Moreover, different buildings can accommodate changes differently. Change in an organisation also requires new working adjacencies between organisational groups, thus requiring new stacking plans to ascertain how internal office layouts might be adapted.

The discussion of the three methods also demonstrates the evolution of DEGW's initial concept of shell, scenery and sets (Duffy and Worthington 1972). Services became a prominent aspect of buildings in the 1980s as evidenced in DEGW's work on dealing floors for London's financial services sector. DEGW undertook a multi-client study titled 'Office Research: Buildings and Information Technology' (ORBIT) which highlighted the implications of new technologies in reshaping organisations and their architectural needs (Thomas 2019). The subsequent development of the concept often referred to as the '4S model' in the DEGW parlance included services along with shell, scenery and settings. The findings from analyzing DEGW project reports demonstrate the DEGW methods and concepts were not stagnant and involved continuous learning and development in response to wider technological and economical changes.

The projects discussed above substantiate the changes required from the buildings to accommodate technological developments. The method of time utilization particularly as applied in the replanning DEGW's offices demonstrated the implications of mobile working on space design. It also involved a change in organisational practices such as introducing a clear desk policy to facilitate hot-desking. Gillen et al. (2019), using the example of time utilization study method, argue that data collection tools to understand use of offices need to evolve in accordance with the changes in our ways of working. It can be observed from the DEGW archive, that the

¹⁹ Replanning DEGW, DEGW A/86/12, 1996.

²⁰ A study of salesforce time utilisation in Manchester and Birmingham, Rank Xerox, DEGW A/239/8, 1994.

methods to understand and design workplaces were evolving in response to the technological developments as well as changing organizational practices. Given the current context of COVID-19 pandemic, the workplace needs to be re-thought as distributed across an ecosystem of different spaces (Cushman & Wakefield 2020). As seen from the evolution of DEGW methods, such re-conceptualisation of office would require new methods and tools to understand relationship between organisation, space and the working practices.

8 CONCLUSION

“The logic that has generated each project and each intellectual departure – environmental, social, the distribution of services, the accommodation of different requirements over time – is always evident. Each one of these DEGW designs has been driven by ideas. And of all the ideas that have obsessed DEGW over the years and have shaped its work, none has been more influential than what the concept of time means for design.” (p.53, Duffy et al., 1998)

This statement from DEGW’s publication discussing its methods and concepts is substantiated through the empirical analysis of the DEGW archive presented in this paper. The analysis of the DEGW archive demonstrates how DEGW a temporal view of buildings and organisations has been core to DEGW since the 1970s. The current trends of activity based working and dispersed working could be anchored in the historical development of DEGW’s ideas on workplace design.

Two lessons are relevant in the wake of new ways of working that current pandemic has instigated. Firstly, the methods discussed in this paper namely space standards, space utilisation and time utilisation suggest that articulating a link between organisation and space demanded a fluid conception of buildings rather than approaching them as fixed objects. This is particularly relevant as future workplaces are imagined to be distributed across an ecosystem of spaces beyond the traditional office building. Secondly, the methods and concepts to design workplace continuously evolved in response to the changes in the ways of working. Designing an ecosystem of work spaces would require new tools and concepts to support the changing work practices.

9 ACKNOWLEDGEMENTS

Thanks to Professor Stuart Green, John Worthington, Despina Katsikakis, Nicola Gillen and the broader DEGW diaspora for their participation in the DEGW archive project.

10 REFERENCES

- Brand, S. 1997. *How buildings learn: What happens after they’re built*. London: Phoenix Illustrated.
- Cushman & Wakefield 2020. *The future of workplace: How will COVID-19 and data shape the new workplace ecosystem?* doi: 10.1108/14777280710727398.
- Decker, S. 2014. Solid intentions: An archival ethnography of corporate architecture and organizational remembering. *Organization* 21(4), pp. 514–542. Available at: <http://org.sagepub.com/cgi/doi/10.1177/1350508414527252>.

- Duffy, F. 1974. *Office Interiors and Organizations: a Comparative Study of the Relation between Organizational Structure and the Use of Interior Space in Sixteen Office Organizations*. Princeton University.
- Duffy, F. et al. 1998. *Design for change: the architecture of DEGW*. Haslemere / Basel: Watermark / Birkhauser.
- Duffy, F. and Worthington, J. 1972. Design for changing needs. *Built Environment* 1(7), pp. 458–463.
- Gillen, N. et al. 2019. Research-led design. In: Gillen, N. ed. *Future Office : Next-generation Workplace Design*. London: RIBA Publishing, pp. 93–106.
- Hall, S. 2001. Constituting an archive. *Third Text* 15(54), pp. 89–92. Available at: <http://www.tandfonline.com.ezproxy.westminster.ac.uk/doi/abs/10.1080/09528820108576903>.
- Hirst, A. 2011. Settlers, vagrants and mutual indifference: Unintended consequences of hot-desking. *Journal of Organizational Change Management* 24(6), pp. 767–788. doi: 10.1108/09534811111175742.
- Kornberger, M. and Clegg, S.R. 2004. Bringing Space Back in: Organizing the Generative Building. *Organization Studies* 25(7), pp. 1095–1114. Available at: <http://journals.sagepub.com/doi/10.1177/0170840604046312>.
- Kreps, C. 2003. Curatorship as social practice. *Curator: The Museum Journal* 46(3), pp. 311–323. Available at: <http://doi.wiley.com/10.1111/j.2151-6952.2003.tb00097.x>.
- Law, J. 2004. *After method: Mess in social science research*. Abingdon: Routledge.
- Marrewijk, A. Van and Yanow, D. 2010. Introduction: The spatial turn in organizational studies. In: Marrewijk, A. Van and Yanow, D. eds. *Organizational Spaces: Rematerializing the Workaday World*. Cheltenham: Edward Elgar, pp. 1–16. doi: 10.4337/9781849804912.00005.
- van Marrewijk, A.H. 2009. Corporate headquarters as physical embodiments of organisational change. *Journal of Organizational Change Management* 22(3), pp. 290–306. Available at: <http://www.emeraldinsight.com/doi/10.1108/09534810910951078>.
- Obrist, H.U. 2014. *Ways of curating*. London: Allen Lane.
- Patel, H. and Green, S.D. 2020. Beyond the performance gap: reclaiming building appraisal through archival research. *Building Research and Information* 48(5), pp. 469–484. Available at: <https://doi.org/10.1080/09613218.2019.1672517>.
- Puwar, N. and Sharma, S. 2012. Curating sociology. *Sociological Review* 60(SUPPL. 1), pp. 40–63.
- Sailer, K. and Thomas, M. 2020. Socio-spatial perspectives on open-plan versus cellular offices. *Journal of Managerial Psychology* . doi: 10.1108/JMP-10-2019-0556.
- Thomas, A. 2019. Architectural consulting in the knowledge economy: DEGW and the ORBIT Report. *Journal of Architecture* 24(7), pp. 1020–1044. doi: 10.1080/13602365.2019.1698639.