Case Study Report

Planning with empathy - tools to guide complex design processes
Case study: Site Haute, Brussels

Adrian Vickery HILL, Osmos Network, Belgium

Laurens Van der Cruyssen, Osmos Network, Belgium

Peter-Willem VERMEERSCH, archipelago / KU Leuven, Research[x]Design group, department of architecture, Belgium

Jo Van Hees, archipelago, Belgium

Abstract

Spatial design and territorial planning is increasingly confronted by complex challenges that could be mitigated through a service oriented approach to design. Can this approach be integrated into spatial design or should it be treated as a complementary and parallel process? Service design is a growing discipline that helps transform how products, services and digital experiences are delivered. Spatial design disciplines, such as urbanism and architecture, have much to gain from these methods and approaches – offering constructive ways to deal with complexity and deliver projects well suited to end-users. Should spatial and service design be combined or treated as two distinct and complementary segments of design that can help cities improve health and well-being? This case study introduces how service design processes and tools have been used for the redevelopment of a social housing project in Brussels (Belgium). The case study aims to show how two different approaches to design are symbiotic and can provide more robust design results.

Keywords

Services design, social housing, redevelopment, empathy in planning

1. Context

1.1. The design of spaces, goods and services

Spatial designers and planners are increasingly finding conventional design methods limited in dealing with complex projects. Over the last two decades architects and engineers have addressed technical complexity in built environment projects through Building Information Models, or BIM, enabling computer-aided software to facilitate interdisciplinary design processes. In the UK, 70% of construction industry professionals have taken up BIM modelling (Statista 2022). At another end of the spectrum, participation and engagement have become commonplace to address social complexity (Kampelmann et

58 TH **ISOCARP
WORLD
PLANNING
CONGRESS**

**FROM
WEALTHY
TO HEALTHY
CITIES**

**URBANISM AND
PLANNING FOR
THE WELL-BEING
OF CITIZENS**

3-6 OCTOBER
2022
BRUSSELS
BELGIUM

al 2017). However, participation and engagement have not necessarily been well integrated into spatial design processes and regularly result in complicating outcomes.

Service design is a growing discipline which has helped transform how products, services and digital experiences are delivered. Spatial planning and design have much to gain from these methods and approaches, to address complexity and render projects more connected to end-users. Service design has relatively recently emerged as a discipline and remains a convergence of industrial design, graphic design, sociology, psychology, business administration and other domains. With roots in the growth of service-based economies from the 1950's, experiences were increasingly treated as a product that could be designed. By the 1970's, services were increasingly built into physical products, resulting in product-based services and service-based products. Understanding how an 'end-user' engaged with a product or service helped drive a radically different approach to design whereby products or services are constantly tested or prototyped to validate the outcome before it is launched onto the market (Stickdorn & Schneider 2011).

Spatial planning functions on a very different scale and timeframe than the design of many products and services. For example, a website can take weeks or months from design to implementation, while a spatial plan can take years or decades. Service design has been slow to be adopted in spatial design projects due in part to the new skills required and possibly because it is treated as unnecessary or a distraction. Examples of alignment of spatial and service design focused largely on institutional projects such as hospitals or infrastructure such as airports.

58 TH **ISOCARP
WORLD
PLANNING
CONGRESS**

**FROM
WEALTHY
TO HEALTHY
CITIES**

**URBANISM AND
PLANNING FOR
THE WELL-BEING
OF CITIZENS**

**3-6 OCTOBER
2022
BRUSSELS
BELGIUM**

Figure 1 & 2. Examples of the housing typologies. Source: A.V. Hill

1.2. The case study project

The Site Haute social housing site consists of a little over 200 apartments and once housed some 400-450 people. The eight buildings were built largely between the 1950's and 1970's and consists of 5-13 storey modernist style blocks surrounding two public squares. The site contains a number of outdated or under-used spaces. It contains a space dedicated to a crèche on the 13th storey of the tallest building, an activity which has since been considered inappropriate. There are various shops and communal spaces, which have become degraded or are difficult to use. It also contains public spaces which are regularly inhabited by youth from the neighbourhood, resulting in anti-social behaviour.

The complex is owned and managed by the City of Brussels' social housing agency, Logement Bruxellois / Woning Brussel, and is one of various housing complexes in the neighbourhood under management by the housing service which is currently undergoing renovation. The site is located in *Les Marolles* (FR) / *De Marollen* (NL), one of Brussels' densest, poorest, yet most diverse and vibrant neighbourhoods. The neighbourhood contains a vast range of social housing typologies, of various ages and stages of renewal. The Site Haute project is unique for both the housing service and the neighbourhood as it is being treated as a renovation project rather than a refurbishment.

In 2022, a team involving Brussels based practitioners from four practices (archipelago, Office U, Osmos Network and Tractabel) were commissioned to conduct a feasibility study. The team were engaged to review a broad range of parameters such as: analysing buildings to redevelop or renovate, exploration of the housing units, identification of opportunities to improve the site's environmental footprint, definition of the maintenance infrastructure, review of the public space around the buildings, exploration of the public services that could be embedded in the site in the future and finally a proposed longer-term development strategy. At the time that the project was launched, a considerable number of apartments had been vacated and many of the buildings were in poor condition.

58 TH **ISOCARP
WORLD
PLANNING
CONGRESS**

**FROM
WEALTHY
TO HEALTHY
CITIES**

**URBANISM AND
PLANNING FOR
THE WELL-BEING
OF CITIZENS**

**3-6 OCTOBER
2022
BRUSSELS
BELGIUM**

2. Spatial and service design - convergence or symbiosis?

2.1. Four quadrants of design

The role of the design is to facilitate creative solutions. Design is far from monolithic, often distinguished by academic and professional circles into specific disciplines or sectors. This section will look at the differences between disciplines to consider if and how disciplines may blur. Spatial design and services design are complementary but share different traits which make it hard to expect a design to practice simultaneously from the mindset of a spatial design and a services or any other form of design.

One way to look at distinctions in design disciplines is through Richard Buchanan's 1992 seminal paper titled "Four Classes of Design", where he highlighted the need to consider complexity in design. Building on this concept, it is possible to plot various design disciplines across two axes.

Firstly in terms of physicality of the problem: flat or plastic? Flat refers to working on a surface and thinking in only two dimensions. Plastic refers to thinking in three dimensions or information levels, where the different spatial interaction scales or different types of information must be considered (such as geography, water, different building levels, demographics, etc.).

Second, in terms of how change is perceived: is the study object static or dynamic? The term "static" refers to a product or final result that has limited movement. The products may move, but the movement is known and can be controlled - a graphic designer creates a book that can be opened and an architect designs a building where some surfaces can move. These design 'disciplines' have generally emerged from arts and crafts, whereby the designer is the vector and their signature is often visible on the final product. If the subject matter is "dynamic", designers are likely to be focused on services, driven by the end user (see below) and the final output may be constantly evolving and difficult to see.

A plot intersecting these two variables presents four quadrants, similar to those identified by Buchanan, but this time with an emphasis on planning things (see Figure 3). This chart is an abstraction, but in reality very few designers have expertise in more than one of these four areas, nor should they be expected. A designer specialising in designing magazines is likely to be poorly skilled in designing a house, website or service.
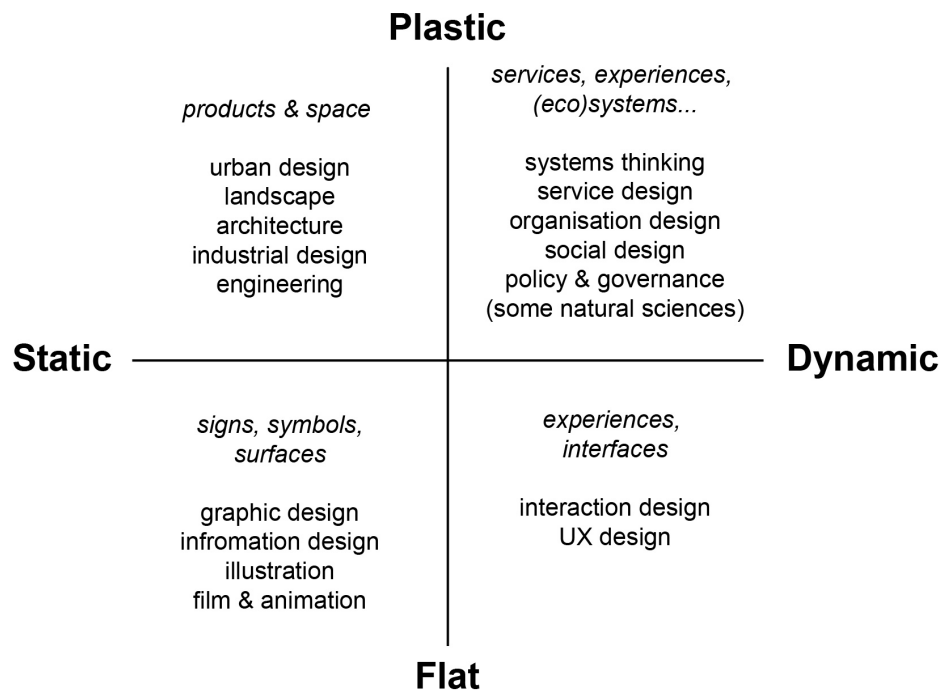
Figure 3. Four Quadrants of Design. Source: Hill 2022

2.2. Design with empathy

Empathy is a term used regularly within service design to stress that there is a focus on understanding the needs of the end-user. Empathy can be distinguished by cognitive empathy (imagining and seeing through one's eyes) and affective empathy (being able to feel similar feelings to those experienced by someone else). Both cognitive and affective empathy have a reflexive impact on the designer as it changes the way one perceives a situation (Cox et al 2012). The designer thus becomes a medium for the needs of the end-user. In service design, the design brief is often contested during the research phase and reframed. The outcomes may not be clear from the outset, problems may be addressed in a wide range of ways - through a service, through the development of a tool or a space.

Spatial design approaches problems from a different cognitive perspective, whereby space is a medium to address the design brief. The scope, brief or budget of spatial design is often well defined.

3. Case study experience

Building on the conclusion from the previous section that indicated notable differences exist between spatial design and service design, this section will summarise key steps performed throughout the process to identify how the two forms of design can be distinguished. This project was divided into four phases. Within the team, the roles were clearly defined: the project management and coordination was organised by *archipelago*; *OfficeU* conducted the spatial analysis and design; *Tractabel* analysed the structural and technical aspects of the site; and *Osmos* was responsible for the service design aspects of the project,

particularly in terms of stakeholder engagement and participation. The project, due to be completed in late 2022, is presented below, focusing on the aspects revealed through the service design.

3.1. Analysis phase

The analysis phase covered much of the classic exploratory aspects of a project however there is a clear difference in what is used as source material.

Spatial and technical design	Service design
- Exploring spatial conditions and mapping urban form. - Identification of development opportunities and constraints, historic and heritage - Analysis of the building structure and technical services (heating, water, access…).	- Interviews & focus groups - Reframing workshop - Development of personas - Programming opportunities based on the needs of the personas

A service design approach focuses on end-users, which can involve anthropological and psychological research into how people interact with the study object. In this case a vast range of interviews and informal discussions were held which provided valuable information, revealing input for the redevelopment that did not emerge through the spatial analysis. Moreover, this exercise is key in 'empathising' with the end-user, particularly to sense their joys and frustrations. Interviews are not a novel practice for spatial designers, but it rarely features prominently in research as it does for service design and rarely are practitioners trained to interview.

Another practice common to service design is the need to question or reframe the brief. An 'institutional workshop' was held with directors and project managers within the social housing agency to better understand where the agency was coming from, to empathise with their nostalgia and traumas, hopes and fears. The outcome of this workshop helped to highlight issues that were not clearly noted in the original brief.

Designing for a population of 400-500 people can be extremely challenging, especially for a site containing a diverse population. One of the key outcomes from the service design process is a collection of *personas* and *user-journeys* which are tools to help designers empathise with the end-users. Personas are a manifestation of quantitative and qualitative data, transformed into a profile of a type of person that could be an end-user. The principle is that it is far easier to design for 5-6 people than it is for 400-500. Each persona card captures key elements of an end-user such as: demographic information, a biography, challenges and pain points, opportunities and goals, touchpoints (means to communicate with them), indication of skills and other variables that may be considered important for the project. The user-journey is another layer which plots a narrative of how someone moves throughout the day, revealing positive and negative issues. In this project a total of nine personas were created.

The personas revealed issues and opportunities that may not have emerged through the interviews or analysis phase. For example, the persona of a concierge was made. In practice the project has been without a concierge for many years. The concierge's persona revealed questions around the need for this role and larger governance on the site. Another outcome came from the need of communal space within

the site to build community. This had been identified by the housing agency and other stakeholders. The personas offered a nuanced insight into what kinds of spaces would be needed. Personas and user-journeys have their limitations and suffer critique (Lino & Basoli 2020), but they remain a valuable tool if interpreted by an experienced practitioner.
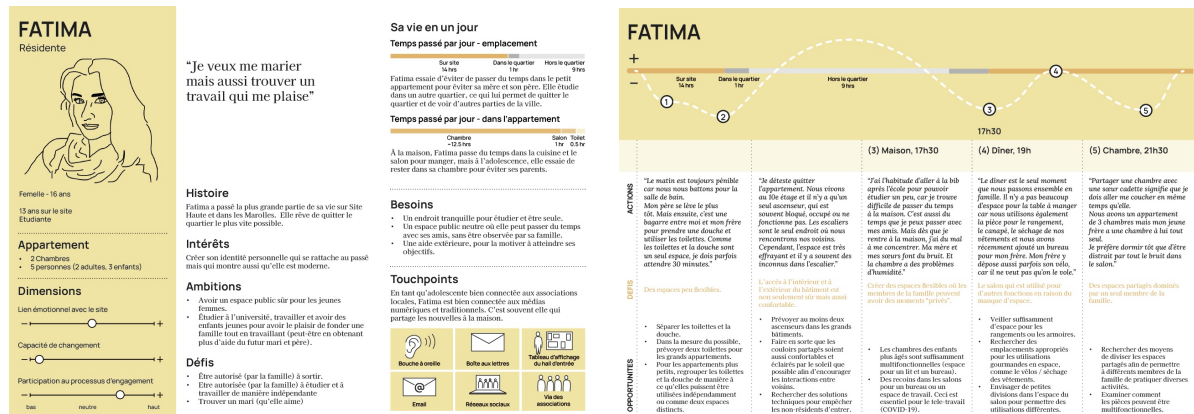

Figure 4 & 5. Examples of a persona (left) and user story (righ). Source: Osmos Network

3.2. Scenario development phase

This phase focused on developing and testing scenarios.

Spatial and technical design	Service design
- Development of three scenarios. - Scenario evaluation workshop.	- Presentation of the personas to feed the construction of the scenarios. - Using the personas to review the scenarios.

Before the scenarios were developed, the personas were presented to the spatial designers. This gave the spatial designers a chance to ask specific questions that could be elaborated or role-played by the service designer. Through representing the personas, it was possible to consider nuanced design solutions.

For example, it was unclear if open 'American' kitchens should be prioritised over kitchens separated from the living spaces. The open kitchens, that are combined with the living space can help provide the sense of a larger living area. However, some people interviewed, particularly those with immigrant backgrounds, prefer to keep kitchens apart from living areas due to cooking odours or even as gendered definitions of space.

Another example was the role of the concierge. This may not have been evident according to the spatial analysis however the interviews and focus groups showed the need for a central figure to be present on the site and to build relationships. This revealed a much more complex discussion around governance and the link to space. A concierge would need an apartment in a prominent location while the alternative of a 'community manager' would need a prominent and accessible locale on the ground floor.

3.3. Concept development phase

This phase, unrealised at the time of writing, involves combining aspects of each of the scenarios into a masterplan project.

Spatial and technical design	Service design
- Fusion of the scenarios into a selected programme. - Elaboration of the selected scenario.	- Use of the personas to evaluate the possible impact and value for end-users. - Focus group with end-users of the selected project to test the design outcome.

This selected scenario will be tested through a focus group. Considering that focus groups will involve a wide variety of participants, some with very poor literacy skills of classic design tools (such as plans and models) it is important to identify issues that are of value. Empathy with the outcomes of the analysis and personas can help identify those issues that will generate useful dialogue.

3.4. Consolidation phase

At this phase, the two forms of design consolidated the outcomes of the project in very different ways. The spatial designers wrapped up their work in the form of conceptual plans, tables and even visualisations of the results. The service design focused on how to communicate the outcome with the stakeholders that were engaged throughout the project.

Spatial and technical design	Service design
Costing, phasing and project definition for the following development phase.	Communications of outcomes.

Communication is often seen by spatial designers as a 'nice to have'. For public and private developers, presenting plans can also be stressful as it may result in criticism or even blockage of the project. For this reason, large urbanism projects are often developed with a limited audience, only to be revealed once they have been signed off or approved. Consequently neighbours and community groups are often put into defensive positions. For service design, stakeholders and end-users are studied early in the process. Furthermore, it is critical to gain feedback and retain good relations with stakeholders. The personas again are a useful instrument to explore the target audience and then communication channels.

4. Reflection – aligning spaces and service

In light of this conference's title, 'From Wealthy to Healthy Cities: Urbanism and Planning for the Well-Being of Citizens', this case study considers how spatial design can lean on service design to help empathetically improve health and well-being in cities.

The case study shows the virtue of having a team member or partner that takes responsibility for the service design and helps to interpret the results for the spatial designers. This shows that spatial and service design are best if conducted as parallel or symbiotic elements of a design team in much the same way as an architect would outsource engineering.

As a closing reflection, this case study involved a multi-disciplinary design team, with very complementary skills and an eagerness to collaborate. In practice, the value of service design could be lost or considered overwhelming if the spatial design team or the client is unprepared to embrace the design approach.

References

Buchanan, R. (1992). Wicked Problems in Design Thinking. Design Issues, 8(2), 7–35. https://doi.org/10.2307/1511637

Cox, C.L. et al (2012) The balance between feeling and knowing: affective and cognitive empathy are reflected in the brain's intrinsic functional dynamics, Social Cognitive and Affective Neuroscience, Volume 7, Issue 6, August 2012, Pages 727–737

Hill, A. V. (ed), (2022) Process Design: an Explorer's Guide, Osmos Foundation, Amsterdam, ISBN: 978-1-7397420-5-8

Kampelmann, S., Kaethler, M., Hill, A.V., (2018) Curating complexity: an artful approach for real-world system transitions. Environ. Innov. Soc. Transit. 27, 59–71

Lino, C. & Bazoli, G. (2020) The trouble with Personas, https://www.designit.com/stories/point-of-view/mindset-over-matter-part-one blog post accessed 28/8/2022.

Statista Research Department (2022) BIM adoption rate in construction industry in the United Kingdom 2011-2020, https://www.statista.com/statistics/1019177/construction-industry-bim-adoption-rate-uk/ consulted 28/8/2022

Stickdorn, M. & Schneider, J. (ed) 2011 This is Service Design Thinking, BIS Publishers, Amsterdam.