

Participatory Housing – Segal’s Self-build Method

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ABSTRACT

This paper joins an already vibrant discussion about the challenging nature of Participatory Design (PD) in British housing design. Through an analysis of a case study - Walter Segal’s self-build method - it investigates how architects and residents fostered participation to engage communities in the decision-making process. The study suggests that participatory methods applied by practitioners let communities play an increasing role as driving forces for participation. In particular, it explores the relationship between the architect Walter Segal and Lewisham residents and simultaneously illuminates the structural and fundamental levels of PD through which housing design inevitably shapes the lives of its users. It demonstrates that PD processes in architecture require a design historical revaluation because they are significantly linked to material culture. In doing so, this paper highlights the correlation between design history and architectural practice as a possible platform for a reflection on the built environment and PD.

CCS CONCEPTS

• **Human-centered computing**; • **Interaction design**; • **Interaction design process and methods**; • **Participatory design**;

KEYWORDS

Participatory Design, Housing, Participatory Processes, Community, Material Culture, Walter Segal, Self-Build Method

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1 INTRODUCTION

Walter Segal (1907-1985) was a German-British architect coming from an artistic family. He was born in Berlin in 1907 but grew up in the Swiss commune of Monte Verita, a well-known meeting place for reformers, pacifists, artists, writers and supporters of various alternative movements [5]. Marked by that time and through his parents’ connections with architects, it was not surprising that Segal studied and then practiced architecture. He began working in Switzerland, then moved to London and started teaching at the

Architectural Association in 1944. Segal focused on small-scale architecture, nevertheless, getting orders for the construction of residential houses in and around London in the 1940s and 1950s. Inspired by the construction of his own home, eventually, Walter Segal decided to work on small architectural projects for the rest of his life and thus began the conception of self-build houses.

2 THE SEGAL METHOD

Segal is well known for his eponymous housing system, which involved self-builders and timber-frame houses. The houses, which were built using the so-called Segal method, are located in Lewisham, a borough of London. Both communities, Walter’s Way and Segal Close, were built using the architect’s techniques. The method was characterised by ease and economy. It gave ordinary people or rather non-professionals the chance to create their own environment using tools usually limited to professionals.

Cost-effective and available materials in standard sizes were used for construction and ensured a building process without specialised craftsmen [9]. Segal’s goal was to build the houses as simple as possible so that people could enter the construction process without expertise. When building his own family house, he came up with the idea to make it available to other people as well.

The modular system [...] empowers the user-builder to take control of their environment and can be seen as a critique of the homogenous mass housing of the time that lacked any capacity for participation or personalisation [8].

Segal wanted to offer an alternative of mass housing, where the plan was developed by the architect, but the houses designed and built by residents. For this customisable concept to be applied the council of Lewisham released three plots of land in the 1970s, instead of a profit-making scheme. However, it took five years for the council to be convinced by and approve Segal’s method. In 1976, the first houses in Lewisham were built with timber frames (see Figure 1).

2.1 The timber frame construction

In an audio recording from 1983, Segal himself talks about the idea and the construction process of his method [7]. He reports that his idea of Do-It-Yourself (DIY) or self-build was inspired by the high demand for housing in London. In addition, he claims that he found a technique that allows people to build their home with the simplest means. By limiting to commercially available materials and purely dry construction operations, the construction and maintenance of buildings were inexpensive. Because of their modular dimensioning they could easily be assembled, and the self-builders were able to carry out the work steps themselves. Jon Broome, an architect working closely with Segal, wrote a special issue of the *Architect’s Journal* 1986 that was published shortly after Segal’s death [2]. This issue, which is organised like a guide, presents the essential steps of the method and explains the modular

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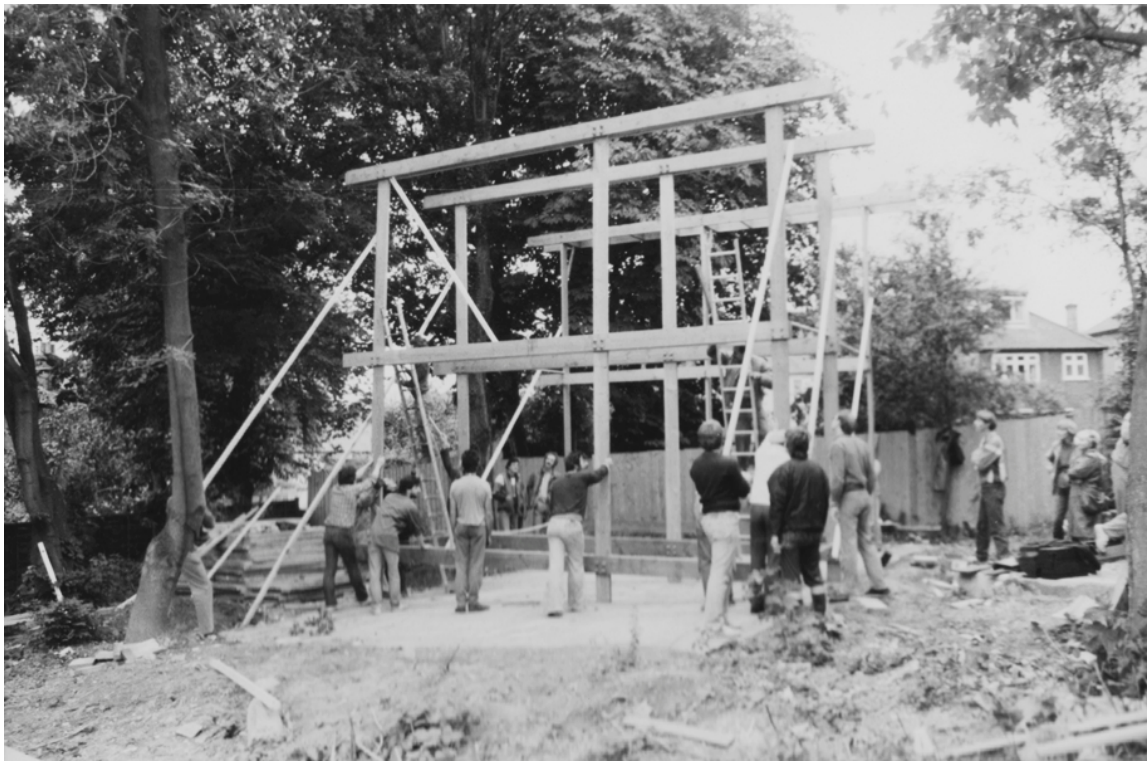


Figure 1: Self-builders on site in Lewisham. Image Courtesy: Jon Broome

grid self-builders had to begin with. Publishing a guide how to implement the method in an architectural magazine shows that Segal's colleague and the community in Lewisham wanted to make the process public and accessible to everyone and Segal's legacy continued by new self-builders. The guide explains that the modular grid served as a framework during the design process.

Rough sketches on squared paper helped to conceptualise the floor plan and sections of a house. Thus, residents were able to choose the layout of their future home and participate in the process, as the drawings were not too complicated nor technical. Once the basic layout was created, Segal calculated and drew the structure before ordering building materials. Eventually, he made a manual for each house that would guide the self-builders through construction. Not only the design process but also the construction site helped to enable residents to participate.

According to John Daniel, Segal transformed the building site into '*a workshop*' by working only with standardised prefabricated materials [3]. Daniel believes that Segal thus freed himself and the self-builders from subcontractors. Indeed, through this procedure, the client was able to build independently of subcontractors. A third party did not influence the relationship between architect and self-builders. In summary, the design process was marked by simplicity and the building process by independence facilitating participation.

3 WALTER SEGAL AS ARCHITECTURAL ADVISOR

In Segal's opinion, the architect is in the role of the '*assistant*' who leads the self-builders and gives the basis for construction [7]. In other words, Segal advised the self-builders with technical knowledge and helped them with implementation. An important part is the knowledge and experience that the architect contributes and that is inaccessible to ordinary people. Consequently, Segal remains an expert in the process and self-builders rely on him. His main idea was that self-builders start to be involved in the planning of their housing from the beginning even before construction. During the building process Segal offered evening schools so that the whole family could participate in the process of building a house.

The idea was to train the self-builders and to share knowledge. However, it is questionable to what extent the entire community could acquire basic skills keeping in mind that they had to learn and spend time on it in addition to their normal work. Although Segal wanted to transfer knowledge, he speaks of clients who work with him [7]. Hence, the relationship between architect and self-builder seems to be permeated by hierarchies. John McKean, architect and good friend of Walter Segal, argues that Segal wanted to be informed about the limitations in advance. In the long term, it was primarily about securing the construction project, and a clear role allocation ultimately supported the process.

The method was very flexible compared to an ordinary building project, but also risky because the construction was carried out by residents. According to McKean, Walter Segal knew that he used

an unusual architectural method [6]. He explains that Segal did not like to work in a big company where he thought he was losing control of the projects. Remarkably, Segal delegated responsibility the moment he integrated participants into the process, also partially losing control. In Lewisham, he wanted a direct connection with the building and construction team, in this case, the self-builders. Considering Segal’s role, it can be stated that he provided the self-builders with designs and advice. With his method, the plans could be created quickly without mediators [6].

Nevertheless, his drawings were not final, he discussed and changed them in consultation with self-builders. These changeable drawings were important for the open process because it was possible to adjust the design to the residents’ needs. Segal is said to have made all drawings by hand and recorded the construction documentation on A4 sheets. Hand drawings must have had many advantages for Segal. On the one hand, they were traceable for self-builders and on the other hand, self-builders could participate in drawing plans.

During the process, Segal met the self-builders several times. Images found in the library of the Royal Institute of British Architects confirm that Segal inspected the construction site. A discourse on equal terms was the basis for the relationship between architect and residents. Given these points, Segal has introduced a method which can be defined as an Open Design approach, accessible to people for DIY and reproduction. Unfortunately, all archival material like plans, drawings and notes are kept by Walter Segal’s son, John Segal, who currently doesn’t have the capacity to make it accessible. That such an open process is now kept closed is inconvenient. It seems possible that the drawings were process-like sketches, quickly made and modified again and again. This, in turn, could provide insight into how the architect worked and possibly confirm how much codetermination the self-builders had in their planning. Maybe it could be traced back if there were joint drawings that reflect the collaboration.

4 THE SELF-BUILDERS

The role of the participants was characterised by active involvement. Self-builders were consultants for Segal during the design phase and vice versa. Although the houses belonged to a council scheme, they were designed individually [1]. Every single family adapted Segal’s method. Secondly, the entire implementation was energetically carried out by the residents. They worked very closely with the architect and with other self-builders from the community. Since the characteristic of the Segal method was simplicity and the inclusion of laymen, it should be made possible for all community members to participate [8].

Accordingly, engagement as such was flexible and open. As identified by Borer and Harris, the community was ‘open access’ [1]. Participants could join the community of self-builders without having specific skills beforehand. Journalist Alice Grahame and photographer Taran Wilkhu, both living in Segal houses these days, published a book [5] about the design and history of the Segal community in 2017. Their aim was not only to describe the estate but also to talk with original and current inhabitants and document how they live in their homes. Grahame and Wilkhu emphasise that the community of self-builders grew together through working

together on-site and having a commonality in building their homes. The timber-frame construction allowed the houses to be constructed from beginning to end by the self-builders themselves. McKean explains that clients became planners equipped with the necessary tools [6].

Segal’s system of PD seems to have empowered some resident-builders to feel a strong sense of agency and purpose. In 1987, they founded the Walter Segal Self Build Trust producing promotional material. The trust saw its mission in publishing information about Segal’s approach for more people to join the self-build movement. A few years later, they released a comprehensive compendium for self-builders, where they outlined the whole process that a self-builder has to go through, supporting further projects [4]. Building together shaped the community so much that even today it is a lively neighbourhood and the houses are inhabited. During *Open House*, an Architecture Festival in London that gives the public access to important buildings, Walter’s Way opened their premises. Houses planned with the Segal method still convey the strong sense of community, even though the original community no longer lives there.

During the event, one of the current inhabitants showed a model that simplifies Segal’s method (see Figure 2). Although it is not the original model they used but one that was rebuilt for study purposes of an architecture student, it shows that self-builders used such tools to visualise the design of their homes. This basic model enabled them to understand the modular grid and display individual changes regarding the floor plan. The modularity of the model itself expresses easy handling for users. The biggest challenge for Segal and the residents was the conditions of the housing market in late twentieth century London. Segal’s process was economically different than most housing projects because the construction of housing was left to the community instead of the council. Ordinary mass housing was characterised by standardisation but in Lewisham individual self-builders stood in the foreground. This method survived Segal, and we can still experience his architectural idea nowadays. Furthermore, the concept is considered as a paradigmatic model regarding PD in housing [8]. The Walter Segal Self Build trust and other organisations took care of Segal’s heritage and continued practising architecture like he did. In 2016, there was an exhibition called ‘What We’re Seeing: Walter’s Way – The Self-Build Revolution’ at the Architectural Association in London presenting the legacy of Walter Segal and the Lewisham community during the 1980s [9]. It emphasised that his ideas were continued and reinterpreted even after his death.

5 CONCLUSION

The case study has provided us with a platform for discussing alternative solutions for affordable housing. A fact that is often overlooked is that PD processes consist of materiality, although it is not directly visible. The findings of this study indicate that artefacts interwoven in the process form design projects. From a theoretical point of view, it has to be asserted that even though PD is a process rather than a design outcome, it incorporates material culture, which means physical objects permeate the process. On the one hand, these objects help residents to understand the materiality

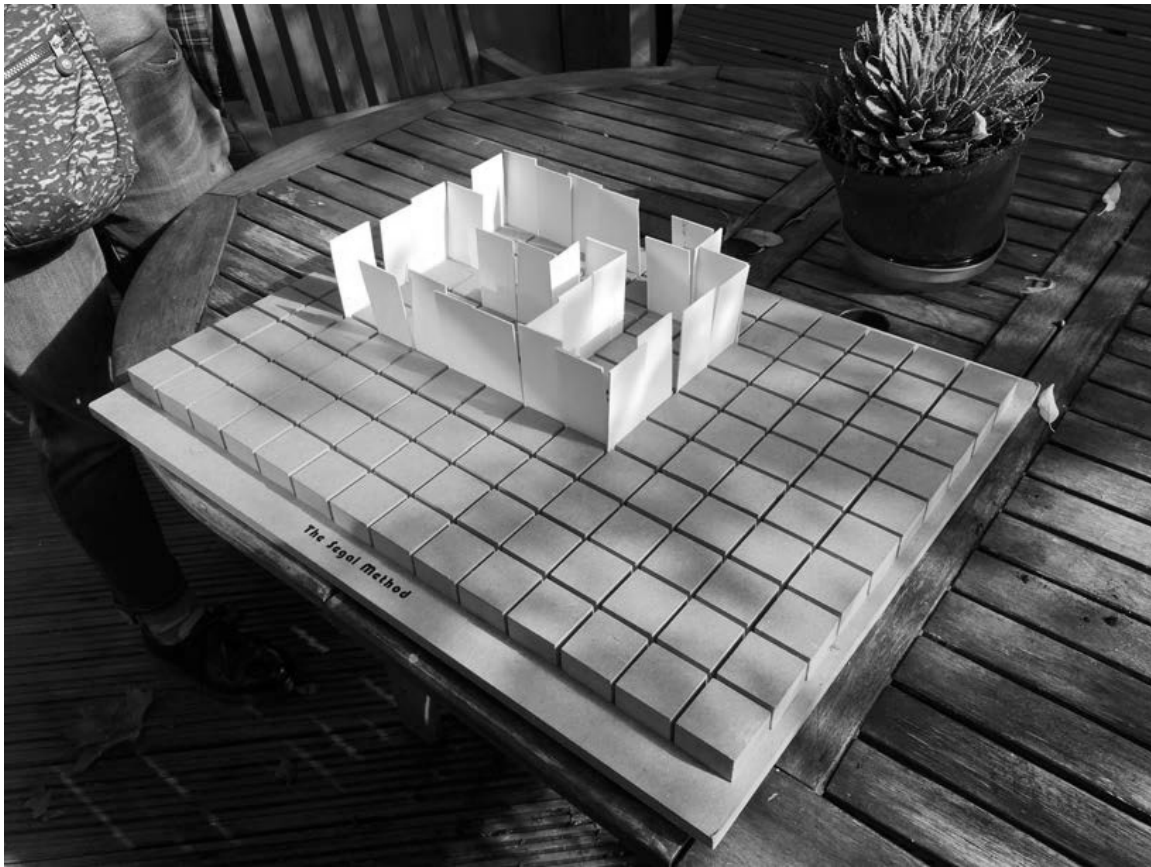


Figure 2: Open House London 2018. Image Courtesy: Luisa Hilmer

of PD in providing information about the design solution (i.e. material samples). On the other hand, these objects help architects to visualise their design ideas. They serve as tools for communicating and thinking about how to implement visions.

Consequently, a key priority of PD should be to plan in the long term and in a sustainable manner taking into account that it brings together all initiatives, measures, models and methods that enable participation in decisionmaking processes in a multi-faceted way. PD empowers communities to take ownership in designing housing and demands negotiating the environmental and social impact of this methodology. The interactions between participants and the environment represent a complex system, and it is crucial for designers to understand whose interests find their way into the formation of space. In essence, participation means extra effort during design processes, but at the same time an additional revenue of ideas, insights and evaluations to change the built environment of today and tomorrow.

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