WHO IS TO TAKE OVER? RENOVATION AND CONTINUITY IN THREE MODELS OF 1970S COPENHAGEN HOUSING

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1. INTRODUCTION
The role of architects in the betterment of society by a process of redirecting our technological systems in ways inspired by democratic principles has been a recurrent matter of concern for the architectural discipline and profession. During the past decades, there has been a recurring desire by some architects – and a part of the public in many countries - to incorporate dwellers and professionals in the conception of housing.

There is a global growing of interest in housing as a political responsibility in the post-2008 financial crisis, post-housing bubble, context. Many practices, publications, exhibitions and events of architecture with participative and collective approaches reveal an undercurrent of present-day society.

The discussion on the politics of housing has lately come to the forefront of architectural debate hand in hand with citizen participation during the 1960s and 1970s, accompanying the rise of post-Fordist late capitalist society in the West (Fig. 1). This is the backdrop set for today's practitioners who are renewing and rethinking those controversies in relation to the present societal challenges. Indeed, it has been warned that they are not only sharing the concerns of the previous generation and their architecture of participation, but also the same failed tactics.
Copenhagen in the 1970s was experiencing a process of de-densification of the former working-class central neighbourhoods with strong centrifugal dynamics towards the new suburbs. This made available building plots in the city core scarce and expensive, and it conditioned the location of new developments. The result was low density and low-rise high-density housing as a reaction to the industrialised mass housing estates of the 1960s in Copenhagen. However, the latter can also be read as a continuation of the well-rooted local tradition of low-rise high-density housing (in Danish: tæt-lav bebyggelse) following a line of work by philanthropic societies and mutual aid working-class organisations that sprung up in the nineteenth century and which were never co-opted by the state.

The particularities of the Danish housing system let highly democratic practices of housing by non-exclusive groups of architects and tenants in unison to be realised. Institutional support in the context of an universal welfare system, a comparatively egalitarian society, and the then emerging Danish-specific concept of tenants' democracy – that today rules by law all social housing in the country⁵ - helped some of these utopias of the late 1970s to be built.⁶ In the light of the contemporary renewal of interest in the political agency of architecture, these long-lasting Scandinavian experiences of socio-material assemblies on human accommodation present a valuable pool of knowledge for democratic housing conception and management. A critical review of them could help to address the demands of the collective transformation of the built environment for the benefit of all which would foster democratic practices in the everyday and regain public influence over urban life.

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Figure 1. Emergence of 1970s participatory architecture. SCOT diagram.³
2. METHODOLOGY

2.1 Theory
Participative architecture, as it has developed historically, implies a characterisation of architectural knowledge as of phronetic kind, i.e. as a practical wisdom standing on the shoulders of scientific and technical knowledge directed towards a good life. In turn, that entails an understanding of architectural works as techno-political constructs. It has been considered that the theory of social constructivism of technology (SCOT) offers a useful scaffold for studying the rise and evolution of these constructs. Previous work by the same authors of this paper studied the rise and evolution of 1970s participative architecture helped by this theory. The characterisation of architectural works as techno-political constructs suggests to analyse both its technical and political dimensions. Therefore the architectural study of the projects has been complemented by an evaluation of their success as constructs directed towards a good life for both its tenants and the rest.

2.2 Research design: Case study
Firstly, the scope of the study has been limited to housing developments in the greater Copenhagen area during the late 1970s. Some of the most successful attempts to recover direct experience of people determining their own environment took place in this particular spatio-temporal frame, where resourceful and influential moves happened in the field of housing. The guidelines narrowing the field of study have been restricting it to cases where the subject of the constructive action was non-exclusive collectives of professionals and non-professionals working in unison. Probably, there is always some level of participation in decision-making in all human endeavours of such complexity as housing is. Therefore it makes little sense to speak in binary terms (of participative versus non-participative processes), but rather in continual terms. The focus has been directed towards highly participative experiences, therefore ranking in the top levels of Arnstein's canonical 'ladder of citizen participation'.

Each one of the cases laid out a housing model which belongs to one housing tradition distinguished by high but distinct levels of tenants' decision-making: flexible housing, co-housing, and communes. Flexible housing is understood here as the academic term defined by Tatjana Schneider and Jeremy Till, co-housing is used as the English translation of the Danish concept 'bofællesskab’ as it is defined by the Danish Building Research Institute (SBi), and commune as the English translation of the Danish word ‘kollektiv’ as it is defined by DSL dictionary. A roll-the-snowball series of interviews with the most relevant actors in the contemporary Danish housing industry with a commitment to participation, part of a project of mapping the present state of this scene, was used to choose the specific cases. The selected cases have been widely published at the time in the Danish architectural media, and are still referential for the works in their fields. They are remarkably different outputs from the same socio-technical breeding ground, offering diverse solutions to problems the architectural profession and discipline were facing at that time.

2.3 Methods
This paper is primarily the result of a critical review of the case studies and so available literature on them has been studied. It was accessed through university materials, databases and suppliers it subscribes to, as well as through the network of public libraries. Part of the research work was conducted for the PhD project of the first author. Technical documentation was accessed via the online databases of the Danish municipalities and the physical archive of the Centre for Buildings (Center for Bygninger) of the municipality of Copenhagen.
The methodologies for housing studies developed by the Laboratorio de vivienda del siglo XXI at ETSAB\(^\text{15}\) was used as a reference to draw analytical diagrams in order to facilitate the architectural study of the cases (Fig. 2). Its socio-technical approach fits with the rationales of this work.

In line with the tradition of tenant's participation studies dating back to Boudon's studies in the 1960s,\(^\text{16}\) this study included visits to the housing estates and interviews with the most relevant actors in each of the housing estates, including residents and architects whenever possible.

### 3. FLEXIBLE HOUSING – FLEXIBO

#### 3.1 Processes

Fællestegnestue was founded in the wake of the commission of an entire town for KAB (Copenhagen's Social Housing Association)\(^\text{17}\) by the old master Viggo Møller-Jensen, active from the 1930s, partner of the famous Danish architect Kay Fisker, and two younger architects, mainly to experiment with industrialisation in social housing. Flexibo’s constructive system was published in the architectural media in 1971,\(^\text{18}\) and was built in 1976. It belongs to a 'double scale' scheme with architects defining a shell and tenants the infill. 68 houses in 8 types were built up between parallel dividing walls of prefab concrete. Flooring, roof and deck elements and light facades as well as ‘wet’ rooms and kitchens placed along the partitions are the only fixed elements in the otherwise flexible house. Outer structures are partially designed, partially built by the residents too.
The innovation in the building is a system for moveable partitions which the residents themselves can manage. With this system, walls can be moved, picked up in a store room and set up in a short time without the assistance of skilled labour. Fig. 3 summarises the architectural analysis.

3.2 Impact
The flexible wall system is probably the main attraction of this social housing complex. It has proved to work. In 1979 the architects and KAB conducted a research showing that 40 apartments had been modified by tenants, some several times already, and only 3 tenants kept the architects' recommended arrangement. People actually re-build, re-arrange and move walls. Few experiments in flexible housing have proved so successful. The degree of satisfaction proved high in earlier studies, and a long waiting list to get an apartment in the estate confirms it today. As early as in 1980 the system was replicated in another location in town with 52 houses in Greve. The reason for the limited impact of the system remains to be studied further, but is likely to be linked to the constraints of flexible housing in other places.

4. CO-HOUSING – TINGGÅRDEN

4.1 Processes
Important precedents of Tinggården are SBI’s commitment with a wider tenants’ democracy formulated in 1969, and Bodil Graae’s letter in 1967 to Politiken – a main Danish newspaper – entitled ‘Children should have one hundred parents’, which was the kick-starter of the co-housing movement. In 1971 Vandkunsten Tegnestue won an ideas competition for alternative dense-low housing initiated by SBI. Later on, the municipality of Køge, located in Copenhagen's periphery, and DAB (Danish
Social Housing Association) joined the project together with 150 families. A long deliberative process with all stakeholders in working groups took place during the following years to shape the project.

During 1975, 79 dwellings plus 16 supplementary rooms – to be negotiated between residents – were built in six so-called family-groups. 10 per cent of the space of each housing unit was transferred to a common house for every group, where common facilities like kitchen or laundry were shared, and where tenants were supposed to spend time together and have dinner together. Fig. 4 summarises the architectural analysis.

4.2 Impact
Tinggården was not the first co-housing scheme, but it was the first social co-housing, and it contributed to define the Danish co-housing model. Some features, like the common meals, were given up, but the degree of sharing is still exceptional for a social housing project. Long waiting lists to get an apartment confirms here too popularity, and natural replacement of the original families levelled the differences with the surrounding neighbours.²³

It was the first built project for a quite young architectural office. In 1981 Tinggården 2 was erected by the same team and the office kept on working in other co-housing projects over the years.

Tinggården was seminal for co-housing, a minority housing model in Denmark that has expanded to other countries, and has been a model to students and architects for decades. Its picturesque expression of a variated city, expression of a democratic society, updated a classic local theme²⁴ and became itself an icon of the time and the type.
5. COMMUNE – SVANHOLM

5.1 Processes
In 1977 an advertisement was posted in Danish newspapers asking for people to live and work in a communal farm as near as possible to Copenhagen. One year later an association had formed, an estate had been bought, and the tenants moved in. Based on green farming, shared economy, gender equality, communal life including common meals and rising children together, and consensus-based decision-making, Svanholm is still today home for around 90 adults and 45 children, and it has evolved into a reference for ecological and sustainable farming, now trying a transition to permaculture.

Many renewal projects were undertaken over the old buildings from the beginning. Decision-making was driven by the construction group and the general assembly of Svanholm, helped by technicians. The resident architect Lars Dahl supported technically many of the renewal works, while some singular housing projects were conducted by the Christiania-based architects of House Arkitekter. Fig. 5 summarises the architectural analysis.

![Figure 5. Architectural analysis of Svanholm.](image)

5.2 Impact
Communal life is a rather alternative housing model. Its mere continuity for almost 40 years proves Svanholm as a quite successful case and makes it an international reference for the ecovillage network. Several housing renewals and former farming building transformations into housing occurred over the years. In them, architects and tenants together shaped their built environment in highly democratic processes of design and construction, that ‘were, in fact, rediscovering the polis, reinventing the commune’, Here the prototypical vocation for the architectural discipline was not so central, but this ongoing process poses the most challenging approach among the selected cases in terms of
problematising housing transformation processes. The figure of the architect as resident, overcoming
the fictional dichotomy between the roles of architects and clients, is even more important. Nevertheless
communes' very alternative stance has resulted in some marginalisation from the discipline limiting the impact of the case to those more narrow circles.

6. DISCUSSION
Several of the goals were achieved of these Copenhagener attempts to recover direct experience of
people determining their own environment, whether to achieve technological means to help tenants
control and adapt their houses to their own needs and desires, to improve democratic practices in
social housing and find material expression of that, or to collectively transform the physical
environment from a commitment to social freedom. Furthermore, both the impact and architectural
analyses in the diagrams above point to the high quality of these daring projects.

Some external determinants contributed to this success (Fig. 6). Real estate speculation has been
relatively limited in Copenhagen due to high ratios of indirect ownership (‘andelsbolig’) and social
housing (‘almen bolig’) and the way they are structured in Denmark. The universal welfare system
model in housing and the rather equalitarian Danish society contributed to bridge the difference
between the participants and the architects' backgrounds, helping to establish mutual understanding.
These cases show how institutional support by key actors like the housing associations and the
national building research institute (SBI) proved determinant. The distinctive Danish tenants’
democracy system, which Tinggården contributed to unfold, fosters and frames democratic practices,
especially in social housing.

Figure 6. Evolution of 1970s participatory architecture in Denmark. SCOT diagram.
Internal determinants of the three cases helped too. They share a pragmatic approach in line with the empirical tradition of Scandinavian modern architecture, side-stepping certain defiant rhetoric that resulted in marginalisation for others. That helped to readjust expectations to reality in long-lasting non-exclusive projects that witnessed important societal changes beyond the initial phase of enthusiasm.

Despite their achievements, a critical review of them points to some of 1970s participative housing shortcomings. The analytical diagrams (Fig. 3-5) show that the ecological dimension (resources) was not perceived as central at the time as it is today. Svanholm's evolution, or the present ecological co-housing trend, inform on this societal development.

Not unrelated to the former point, the urban dimension (the city) of these rather suburban projects is one of their most dubious aspects, which can be partially explained by the real-estate market situation of 1970s Copenhagen. However, the inclusive vocation of these particular cases, being Tinggården and Flexibo social housing, has contributed to erode the initial socio-economic gap between tenants and other neighbours, avoiding segregation.39 Recent moves in the city centre of Copenhagen like Urbania point indeed towards the need to overcome this flaw.30

This renewal of interest for housing with participative and collective approaches in Copenhagen shares a clear feature with these classic projects of the 1970s: the will of stating an architectural manifesto. However, the successive reforms of Flexibo and Tinggården, despite of being channelled by highly democratic decision-making processes of tenants' democracy, have remained largely under the realm of what would have been called 'authoritarian architecture' in the old days.

The evolution of these successful exemplars points to a crucial flaw: the efforts towards democratisation of everyday life by architecture came unaccompanied by parallel efforts towards democratisation of the most everydayness of architecture. The transformative impulses towards denaturalising the everyday by architecture left naturalised the most everydayness of the architects' profession: the little interventions over housing, which have always been the base of the architectural work, hence losing the chance for an institutionalised restructuring of architects and citizens' practices of transformation of housing.

Svanholm's experience points elsewhere: the architect as resident, overcoming thus the restraint to the design process phase in the development of a free-standing system, as in the 'double scale' cases. That would agree with what Ehn and other academics have summed up as a move from designing 'things' (objects) to 'Th
ing' (socio-material assemblies),31 drawing on Bruno Latour's writings about the etymology of the English word “thing” ('ting' in Danish) as assembly in the ancient Nordic and Germanic societies.

**7. CONCLUSIONS**

Some particularities of the Danish housing system, like institutional support in the context of an universal welfare system, a comparatively egalitarian society, and the then emerging Danish-specific concept of tenants' democracy, helped highly democratic projects of housing by joint non-exclusive groups of architects and tenants to be built in the late 1970s.

At the light of the contemporary renewal of interest in the political agency of architecture, these long-lasting Scandinavian experiences on human accommodation present a valuable pool of knowledge on democratic housing conception and management. A critical review of them has been conducted hoping to address the present demands of the collective transformation of the built environment for the benefit of all that would foster democratic practices in the everyday and regain public influence over urban life.

The technical and socioeconomic impact of the studied cases, both in their inhabitants and in the city, as well as their influence over many other later housing projects speaks of their exemplary nature. However, beyond their many achievements and impacts on the local architectural circles, the 'thorough reformulation of both theory and practice in order to avoid repeating the well-intended but mistaken strategies used by modernist reformers and sixties radicals'32 remains a pending task.
The de-naturalisation of the most everyday of the architectural profession through an institutionalised infrastructuring\(^1\) of architects and citizens’ practices of transformation of housing remains an opportunity to resume the increasingly popular old goals of integrating processes of mutual learning and fostering democratic practices in the everyday life, while improving the quality of housing. A move, hinted but not fully realised in these projects from the 1970s, is from projecting objects to conceive and mingle with socio-material assemblies. A step to spacing the assemblies (Things), i.e. to devise new ‘Tinggårde’ (in English: yards/farms of the Ting/assembly).

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1. Recently just in Copenhagen: the exhibitions “Fællesskab din by” and “Et lille hus i byen” by the Danish Architecture Centre, the Urbania project, and the first award of the competition Housing of the Future to the flexible housing project of the architectural office Vandkunsten Tegnestue.
4. This was the topic of the exhibition “Et lille hus i byen” by the Danish Architecture Centre. Brumleby in central Copenhagen could be a clear exemplar of it.
5. ‘Beboerdemokrati’ (tenants’ democracy) is a legacy of the Danish XIX century housing cooperative tradition, characterised by high levels of tenants control. It was fostered by the Housing Provision Act 1970 on which tenants were allowed to run their estates themselves through democratically elected tenant boards, and confirmed as the main feature of the Danish social housing system by the Law on Tenants’ Democracy in 1984. 20,000 tenants hold an elected post, 33 per cent of all tenants participate in the annual meetings of the housing estates, and 10 per cent of maintenance work is performed by tenants in ‘common working days’. Source: Lotte Jensen, Ole Kirkegaard, and Dan Ove Pedersen, *Beboerdemokrati og forvaltning i den almene boligsektor*. SBI-rapport 332 (Copenhagen: SBI, 1999).
8. Indeed, the suitability of this methodology for the study of the politics of architecture has been maintained by some of its main advocates. Eduardo Albar and Wiebe E. Bijker, “Constructing the city: The Cerda Plan for the extension of Barcelona”, *Science, Technology and Human Values* 22: 1 (1997): 3-30.
16. From the classic of Phillipe Boudon, *Lived-in Architecture, Le Corbusier’s Pessac revisited* (London: Lund Humphries, 1972), through the works of Peter Malpass on Erskine’s Byker or Nan Ellin on Lucien Kroll’s Vignes Blanches to become the several contributions to 2015 issue of the journal Footprint on the participatory turn in urbanism testify.
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