

PATINA OR DIRT? TRANSFORMATION OF TERRACED HOUSE ESTATES OF THE BOOM YEARS¹

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INTRODUCTION

The built environment of the 1960s and 1970s has left a significant mark on European housing stock, forming the main part of existing habitat in this region². Therefore, this ageing stock cannot be ignored in the discussions about strategies for housing policies; which is still a common attitude in political debates about the relevance of housing projects originated in this era. The preconception – coming from generalizations and opinions of the postmodernism era³ – of its obsolescence sets the tone for housing policies and strategies. Thereby, housing projects, which are still valued by their inhabitants, are denied in those debates; not taking into account the significance of existing habitat for the urban identity. By not considering the stock as part of attractive living space and consequently, negating it as resource, demolitions are favoured. Therefore, construction waste⁴ increases. The negative attitude also deletes habitat that has grown over the time, forming the social-cultural memory. The result are new artificial quarters with the lack of own identity⁵; a link which can be generated by including the past into future built environment. The shared memory of urban mind maps and habitat is one important parameter to create the feeling of belonging. Therefore, the discourse of the relevance of existing housing should deal with the significance of the potential of this stock. Specific typologies such as terraced housing present characteristics for transformability in a dense urban structure and are resilient in terms of long term acceptance⁶. The investigation raises the question on which elements are important to transmit the identity, found in valued housing projects in the era of the Boom Years (1946-1980).

Therefore, a special analysis of the different typologies and their advantages as resilient structures is the first step for considering strategies. By analysing the housing developments of the investigated era, the terrace house typology – as alternative for single family houses in a community of high density – stands out⁷. It offers the potential transformability needed for dense living space and, at the same time, the moment of identification through its materiality⁸.

As investigations of the terraced house the *Siedlung Halen estate* in Bern (*atelier 5*, 1961) is exemplify⁹, this typology which has offered existing housing of high living quality for generations¹⁰ – countering the popular negative opinions towards housing of this period.

However, since the life span of their applied materials is coming to an end, especially the terraced housing type of the Boom Years is suffering of construction problems – mainly seen in the stock of the 1960s and 1970s – due to the state of the art and innovative design approach of this era¹¹.

But how can this transformability in housing projects take place and at the same time provide durability of habitat-identity over time?

In the present paper I will discuss the role of raw concrete in this typology and relevance of its ageing in the process of identity creation in the present and future. Hereby, the discourse will reflect on the issues of construction problems and at the same time, on the potential and possibility to pass on the high spirit of belonging. As one of the first internationally highlighted and well investigated projects of this typology, *Siedlung Halen* reflects the complexity of ageing: on the one hand it is one of the most valued estates in Europe but on the other, this significant habitat is endangered of losing its potential as a habitat of high living quality and community spirit for generations; a situation which is increasing due to the lack of a holistic strategy to provide feasible and specific solutions for the severe

construction problems. *Siedlung Halen*, as one of the few protected projects of this typology¹², could reveal an approach how to proceed to establish preservation conditions, the effectiveness of protection and the need for transformability. The analysis is trying to point out on the one hand, the intention to make use of the resources to provide resilient typology and on the other hand, the need of a shift in the perception or evaluation of aged concrete – value ageing as *patina*¹³.

A holistic approach should provide concepts for transformability in housing when its material life span has come to an end. Therefore, the spirit of belonging is passed on to next generations, but at the same time a resilient structure is guaranteed that can age “with grace” and, create attractive livings space with a proper identity and history.

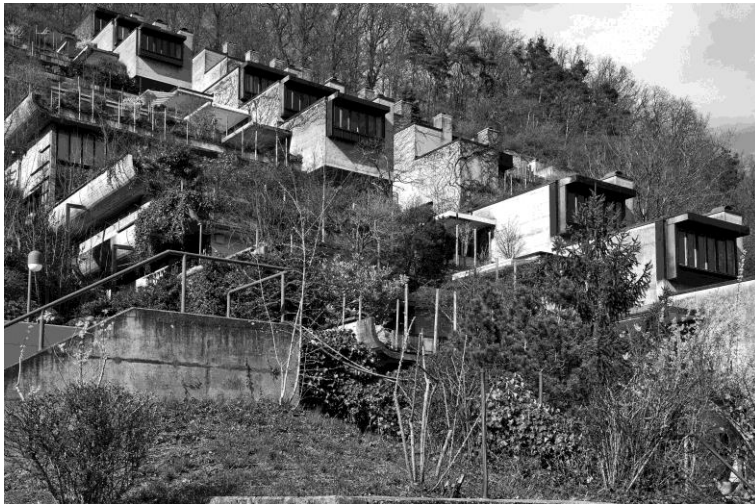


Figure 1. *Terrassensiedlung (terraced housing) Mühlhalde (team 2000/ Famos+Scherer+Scherer, 1963-1971), Umiken. Photography: Heiko Dobler. Source: <http://schoenstebauten.heimatschutz.ch/de/terrassensiedlung-muehlehalde-umiken>*

AGEING - TYPOLOGY OF POTENTIAL

The distinctive materiality of raw concrete – as material of the Boom Year’s *Zeitgeist*¹⁴ – still adheres to negatives connotations due to common preconceptions of this era; equating aged concrete with faulty construction and social isolation.

By stigmatizing raw concrete as “unfriendly” and “depressing”, valued projects¹⁵ in raw concrete are condemned unjustified in the common debate; disapproving of a whole architectural era.

But since the late 1990s, the connotation of aged exposed concrete of the Boom Years has changed to a positive image. In this period, the material was rediscovered¹⁶, not only in terms of “perfect” surface of new construction, but also in that people started to see its ageing “as an alternate kind of architectural aesthetic” which was part of the design process¹⁷.

From then on, parallel to professional discussions about the future for this stock¹⁸, a kind of nostalgic revival towards the language of Brutalism is focussing on the signification of this era for present conception of built environment. This interest started in the early 2000s in the art sector by treating the aged *Brutalist*¹⁹ architecture as artistic object²⁰, celebrating the *Brutalism* in a melancholic dramatic way - comparable to the ruins taken by nature in times of Romanticism. The awareness of its decay is also articulated in blogs and groups in social media²¹, but still more in a nostalgic and exclusive view than discussing the architectural social intention of the projects neither possibilities as resource for future built environment. But nevertheless, the revival shows the difference of cultural identity between generations which is defined partly according to their built environment. The era of the Boom Years marked the present generation, and as the approvals of Brutalism projects in these discussions are pointing out, these once neglected buildings are now considered as positive part of the cultural memory of the generation of the 1990s.

How can it be passed on in its significant and strong *brutal* language which highlights this stock as mind map in the urban context and for inhabitants as unique living space while it is ageing?

In terms of the political decisions for housing policies, the still existing stigmatization and prejudices of the housing stock of the 1960s and 1970s²² are favouring demolition²³. But the argument of obsolescence is hiding the aspect of lucrativeness of housing in the real estate market, because the urban location is the parameter to decide the demolition, not the value as existing habitat²⁴. The method, based on financial interest, denies valuable resources by unspecific evaluation and destruction of historical grown habitat.

This situation has turned the attention of professionals from the preservation, patrimony authorities and architecture in Europe²⁵ to the emergent need of strategies in dealing with the aged building stock of the Boom Years, raising the awareness of this built legacy. The discourse about preservation concepts and reuse is mainly dominated by approaches regarding the value as patrimony and cultural-architectural heritage which are linked to the aspect of preservation and – once protected – at the level of intervention. A striking feature is the high percentage of public buildings in the considered legacy. Those examples of this public function show an existing *raison d'être* of exposed concrete as a significant element of this period and building (Figure 2). Thereby, the materiality is outlined, placing special attention on the restoration works and methodology²⁶. But they are not including the approach to stress the aspect of ageing in the sense of creation of patina as it is in the heritage of earlier architectural periods.



Figure 2. Industrial Trade School of Art and Design, Basel by Hermann Baur (1961), photo 2012 Source: <https://socialskillsarchive.wordpress.com/2012/11/18/brute/>

In housing, it is a different case because of the ownership structure and economic framing which complicates the process of decisions for solutions to face the construction problems; apart from the higher legal requirements on energy use for housing in contrast to public buildings in Middle-Europe²⁷. Moreover, ownership associations are hesitant to apply for a status as patrimony. Experiences like those in *Siedlung Halen*²⁸ favour the conception of “problem” by declaring the estate as patrimony because of the perceived complicated process of decisions by dealing with renovation works; a result of the lack of acceptable methods regarding the patrimony guidelines and economic reasons for the ownership²⁹.

The methodology for refurbishment of non-protected stock is often determined by the legal energy requirements³⁰. In Middle Europe, the well promoted ETIC-system (a façade-system of outside insulation and plaster) has generated economic and “energetic efficient” solutions for renovation works. Apart from questionable ecological advantage³¹ – the complexity of this topic will not be discussed in detail in the present paper – this one-sided concept of standardized method denies taking advantage of typological and urban particularities or ecological qualities. But especially these singularities in typologies are important to understand the role of habitat as a link for identity-creation.

The loss of this built memory, as part of the historically grown city has an important impact on the urban social identity which creates a spirit of belonging of inhabitants to their living space.

Patina or Dirt?

By analysing the reflection of both generations of *Halen's* inhabitants, investigated in the interviews of the ethnologist Nancy Wiessmann-Baquero, the common memory and spirit of community is dominating the statements³². This emotional connection is linked to the architectural concept of “modern lifestyle” and the perception of it in the ensemble. This differentiation is needed to outline the “others” which strengthens the feeling of community. Raw concrete is therefore a significant element of the community because it stood for innovation and at the same time it is a unifying element - highlighting the built structure as one ensemble in the green surrounding³³.

In this sense, raw concrete in housing of the 1960s and 1970s also seems to have represented, for the inhabitants, an innovative different social living concept; implying the positive identification with the living space in their community - as the statements of inhabitants of terrace house estates like *Siedlung Halen* are showing. After fifty years, the material has aged; it is covered with a greenish patina. Therefore, the connotation of concrete is not anymore mainly the “innovative”, it has become a part of the environment, like reconciled with nature³⁴. This “witness” of time is “one person’s dirt [...] or “another’s patina”³⁵.

Especially for this typology *patina* is an important design parameter. This is emphasized in the statement of *atelier 5* about concrete-works, whose patina is “from the beginning on a part of the architecture”³⁶. This approach is also questioning the aesthetics of immaculate finishing of “forever young” architecture³⁷ reflected in the high valued exposed concrete of new construction (see for example *School in Paspels*, Valerio Olgiatti, 2001) and comments of clients on judging finished projects. Patina is intended to foster the sense of belonging and daily use of living space and architecture³⁸.

Taking into account the intentions of the architects by using exposed concrete for this typology and the investigation about the value of patina in exposed concrete as link between generations and their built environment, it could be argued that patina is embellishing and outlining the quality of the building in a “self-evident” way³⁹ that could be applied to the stock of the Boom Years.

By creating the link between past and future, the habitat represents a mind map which stands the test of time while it will be transformed by time without losing its identity. Therefore, a shift in the common evaluation of the ageing of concrete in valued housing typology of the 1960s-1970s, should be considered by thinking of resources for needed living space for the future.



Figure 3. Concrete's Patina - Plaza of Siedlung Halen, Bern/Switzerland Copyright Photography: Nikolaus Schletterer. Source: Aut. Architektur und Tirol, (2009).

Construction problems

When in 2012, the *Siedlung Halen* celebrated its 50th anniversary a “rich illustrated book”⁴⁰ was published. The book reflected on the approaches and life through the fifty years of its existence. The ongoing discussions about patrimony protection and construction problems are mentioned but without putting emphasis on the recent situation⁴¹. However, these unresolved problems overshadow⁴² the future for the still high valued housing project.

Due to their setting and *structuralist* approach⁴³ as urban green habitat based on participatory approaches, private and public in- and outdoor spaces are corresponding to the pattern of protrusions and recesses in the facades, creating significant green roofs and intersections between in- and outdoor areas. These sensible detailing points are implying higher requirements on their execution or sealing. As original detail plans⁴⁴ of the state of the art of that time⁴⁵ are reflecting, nowadays those neuralgic points are mainly the areas of construction problems. The approach of inserting plants into the spaces increases even more the stress on the building envelope which is raw concrete. After decades of experience, the concrete mixture and legally required coverage of steel in reinforced concrete have been improved, but in the 1960-1970s, the use of exposed concrete for those typological demands was innovative. Therefore, mainly in these areas of construction, renovation works are needed which at the same time are the most sensitive construction elements for its significance as an ensemble. The established method to repair damaged exposed concrete is glaze painting because it stands for economical and maintenance efficiency⁴⁶. Due to its character as a superficial treatment, glaze painting is changing the material perception as solid of raw concrete. It changes the spatial form into a surface which generates a loss of spatial quality. By converting the material with a shiny plane, an artificial “clean” surface is created which impedes the “daily use” by ageing; also called *patina*⁴⁷. This denies the possibility of transmitting the cultural-historical durability and value attributed to built legacy⁴⁸. Without this link, these interventions are not generating an alternative to attractive urban living spaces - which is the bases for a long-term solution for generations.

Comparing the superficial treatment to methods of concrete-restoration for public buildings (Figure 2), restorers are pointing out, that specific and professional renovation and reparation works for reinforced concrete are more expensive in the beginning, but providing traceable and less intensive and therefore economical in the long run⁴⁹. They are also offering a chance to treat raw concrete as a solid material. Repairing the damages by maintaining the sculptural effect and spacial quality as solid could be an alternative to pass on one of the important identity creating elements. Patina could cover the facades by not destructing the material. But for the application of these methods, a shift in preservation concepts for the housing stock of the Boom Years is the precondition. Outlining the identity creating elements and daily use of housing, more than to focus the aspect of authenticity should be the intention in guidelines and assessment tasks for patrimony authorities and architects; helping inhabitants to find feasible long-term concepts and agreement.

Apart from the issues of construction, the aspect of ownership makes the renovation strategies even more difficult. In housing like *Siedlung Halen*, the difference with public housing is stressed because after detecting the problematic points of construction, the aspect of responsibility of paying comes into discussion⁵⁰. When the estate was built, the legal frame for commonhold property was new in Switzerland, a difference with terrace house estates of Austria or Germany⁵¹. This aspect will still complicate agreements for solutions, if the concepts for renovation works are not offering a feasible and convincing solution⁵².

CONCLUSION

As the analyses of the identity creating elements and valued estate of *Siedlung Halen* show: the judgment of exposed concrete of the 1960s and 1970s as poor and “dirty”⁵³ can be revised, if construction problems and faulty maintenance are resolved. This contradiction in perception could be a starting point to revise the common opinion about exposed concrete of the Boom Years. The material itself is not banned, in new construction, on the contrary, it is connoted with high construction value and “perfect” finishing; outstanding projects are designed and internationally honoured⁵⁴.

Accordingly, it can be concluded that the acceptance of exposed concrete in housing is linked to the fact of the appraisal of ageing. Thus, the *Siedlung*'s elements of identity represent the challenge of finding methods allowing us to pass on this valued habitat to next generations.

Therefore changing the meaning of aesthetics of the modernists for the theory of the “Age value,” would mean: decay as a part of transformation⁵⁵; not seen in the sense of romantic destiny of buildings, moreover as “energy flow”⁵⁶ and opportunity for making use of resilient existing structures. The awareness of the significance of ageing in living spaces should provide the first step for investigations to resolve construction problems while patina can be created; strengthen cultural-historical significance and spirit of belonging of historical grown habitat which is one important parameter for urban identity and responsibility for the community.

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¹ This term defines the architectural historical period of the 1960 to 1970s in Western Europe; in Switzerland the period is also including the 1980s. See also Uta Hassler, „Offene Fragen,“ in *Bauten der Boomjahre – Paradoxien der Erhaltung*, ed. Uta Hassler, and Catherine Dumont d’Ayot (Zürich: Infolio, 2009), 8ff, and Martin Behnisch, “Raum-zeitliche Strukturmuster im Schweizer Baubestand,” *Ibd.*, 246.

² Uta Hassler, „Offene Fragen,“ in *Bauten der Boomjahre – Paradoxien der Erhaltung*, ed. Uta Hassler, and Catherine Dumont d’Ayot (Zürich: Infolio, 2009), 10.

³ The negative attitude towards this stock can be traced back to the critics of the late 1960s when first reaction against the housing and urban concepts of the post-war period were raising. The climax of these critics was achieved in 1973 when the oil crisis and reports of the Club of Rome disillusioned the euphoric vision of technology, followed by consequences of the Year of Patrimony (1975); see for critics: Jane Jacobs, 1961 and Alexander Mitscherlich, 1965 or the exposition “Heimat Deine Häuser”, 1968.

⁴ Jörg Stollmann, “Hands Off: Urban Mining! A Plea for the Re-Evaluation of Substandard Housing,“ in *Building from Waste: Recovered Materials in Architecture and Construction*, ed. Dirk Hebel et al. (Basel: Birkhäuser, 2014), 27, 28.

⁵ Jörg Stollmann, “Die wirklich europäische Stadt,“ *archithese* 6 (December, 2014): 72.

⁶ Karen Beckmann, *Urbanität durch Dichte? Geschichte und Gegenwart der Grosswohkomplexe der 1970er Jahre* (Bielefeld: transcript, 2015), 243-244.

⁷ Karen Beckmann, *Urbanität durch Dichte? Geschichte und Gegenwart der Grosswohkomplexe der 1970er Jahre* (Bielefeld: transcript, 2015), 440, 475-476.

⁸ Eugen Gross, “Wie beeinflusste der Strukturalismus die “Grazer Schule” der Achitektur?“, in *Was bleibt von der “Grazer Schule”? Architektur-Utopien seit den 1960ern revisited* (Berlin: Jovis Verlag, 2012), 219. The author points out that due to the significant materiality of the estate - raw concrete – the inhabitants perceive their habitat as one specific space with an innovative a “different” character. A moment of recognition is produced by using one main material which is strong in its language.

⁹ See for example statement of Alfred Pini in: Alexander Sury, “Die Betonsiedlung, die einst als Weltwunder galt”, in *tagesanzeiger* online, 03.02.2010, 3, <http://www.tagesanzeiger.ch/kultur/architektur/Die-Betonsiedlung-die-einst-als-Weltwunder-galt/story/27471390>; also in: Heinz J. Zumbühl, *Siedlung Halen: Meilenstein moderner Siedlungsarchitektur* (Bern: Haupt, 2010), 33.

¹⁰ Heinz J. Zumbühl, *Siedlung Halen: Meilenstein moderner Siedlungsarchitektur* (Bern: Haupt, 2010), 51.

¹¹ Uta Hassler, „Offene Fragen,“ in *Bauten der Boomjahre – Paradoxien der Erhaltung*, ed. Uta Hassler, and Catherine Dumont d’Ayot (Zürich: Infolio, 2009), 11.

¹² *Siedlung Halen* was put under patrimony protection in 2003. Due to problems of agreements between owners and patrimony authority of economical-practical feasibility and preservation restrictions, in 2012, *atelier 5* and the *preservation authority of Bern* elaborated guidelines for interventions. This assessment- tool aims to point out important aspects of the *Siedlung* which are recommended to be considered. The booklet tries to mediate between interests of ownership and patrimony authority (see *Guidelines Siedlung Halen*).

¹³ For explanation about the term patina in preservation see: Stephen Cairns, and Jane M. Jacobs, *Buildings must die – A perverse View of Architecture* (London: MIT Press, 2014), 72.

¹⁴ Reyner Banham, *Brutalismus in der Architektur: Ethik oder Ästhetik?* (Stuttgart [u.a.]: Krämer, 1966), 27.

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elaborated a refurbishment plan and strategies, based on the guidelines of 2013. As the architect Heinz Müller (atelier 5) explained (*correspondence, private archive*) in December 2014, needed renovation works were accepted also by the ownership. But the methods still were not known to the architects how to approach the works for the exposed concrete areas or sensible flat roof details. They were planned for spring 2015. Also unsure was if they would be initiated by each owner or a common start of the works. In 2015, the news has calmed down about the discussions about the construction works in *Halen*, but as the report of the architect is reflecting, the process of joint solutions and collective works is still in the beginning. See for the situation for example: René Hornung, "Reihenweise Probleme," *Hochparterre*, March 31, 2014, <http://www.hochparterre.ch/publikationen/hochparterre/shop/artikel/detail/aprilausgabe-2014/>

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