Georges Addor, Jacques Bolliger, Louis Payot, Meyrin Parc Satellite Precinct, Geneva, Switzerland, 1960-1964. © *Centre d'Iconographie Genevoise-BGE*, **Geneva.**

Housing Reloaded. Collective Housing in Europe, 1945–2015

BY FRANZ GRAF AND GIULIA MARINO

"Should the grands ensembles be demolished?" This question was a major preoccupation for architects in the 1990s. Incidental as it may seem today, the question is not completely old hat. The initial, progressive shift towards the practise of maintenance is to be welcomed. But we still need to be conscious, looking forward, that the qualities or values of constructions built between 1945 and 1975 are only rarely recognized and safeguarded. A tremendous variety of strategies have been adopted, and this thematic issue on collective housing's present-day relevance proposes to revisit, on the European scale, this very multiplicity of approaches.

The recent work by the Austrian photographer Otto Hainzl[1] has been integral to the positive international reception being enjoyed by the *Nuovo Corviale* housing scheme in Rome (Mario Fiorentino, 1972–82). This prefabricated concrete project, more than 1km in length, was once decried as a symbol of the failure — architectural and social — of the post-World War II drive towards large-scale housing in Europe. How perceptions have changed: after 20 years of strident argument the international competition "Rigenerare Corviale" was recently launched by the Commune of Rome, strongly supported by the 8000 inhabitants who admitted to being literally "fascinated by the monster"[2]. So it seems at last we are acknowledging — or claiming to — the innovative nature of this 1970s social housing experiment: and looking to preserve some of its characteristics.

The attention Mario Fiorentino's highly controversial work has been receiving recently indicates a key cultural shift. In the last 10 years, with the benefit of historical hindsight, we have begun to look again at housing schemes of the 1945–1975 period. There are so many, and they are often of considerable heritage interest; indeed they are increasingly being recognized as heritage in a way that would have been hardly thinkable not so long ago. The protection afforded to Ernö Goldifinger's Balfron Tower in London (1966–72) or the *Cité de l'Etoile de Bobigny* by the trio of Candilis, Josic & Woods, are cases in point. We would be fooling ourselves, of course, if we thought this represented a consensus: the go-ahead has been given for the destruction of Robin Hood Gardens, by Alison and Peter Smithson (1969–72), and as we speak Britain's Prime Minister is announcing the demolition of 100 "brutal high-rise towers [...] that are a gift to criminals and drug dealers"[3]. Nonetheless, all over Europe, and well beyond the confines of academia and the heritage lobby,[4] we are witnessing a renewed interest in the large-format housing complexes of the later 20th century, an emblematic *corpus* that has, in the real sense of the term, helped shape the contemporary landscape. Only now are these schemes beginning to be appreciated on their own terms, by users and public opinion alike.

Demolition or renovation — is that still the question?

Conspicuous as they are, these buildings are seen as plain and ordinary. So despite a plethora of consultations, public initiatives and research intended to shed new light on the theme of the *grand ensemble* — not least in its social implications — interventions can vary immensely. Ideas about how to protect contemporary architecture and the scientific tools for cataloguing it are becoming clearer. Traditional art-historical criteria are being refined by new kinds of assessment: "technological innovation, production techniques, the aesthetic of manufacture in series"[5], themes perfectly embodied in the prototype EH House by Renzo Piano and Peter Rice (1977–78). Yet current architectural practise within existing buildings is still feeling its way forward. A tremendous variety of strategies have been adopted, and this thematic issue on collective housing's present-day relevance proposes to revisit, on the European scale, this very multiplicity of approaches. But the situation is on notice. Things are not as reassuring as they could be. Only rarely are the methods defined with the aid of suitably thorough supporting studies. It is a mixed picture on the ground where interventions pay only the scantest attention, most often by accident or misapprehension, to the material integrity, the cultural values of post-war architecture, whilst landscape character is overlooked altogether. In this context, large post-war housing schemes, originally conceived as a demonstration of architectural, technological and social aspirations, are now a major target for action when it comes to issues like energy consumption.

Should the *grands ensembles* be demolished?" This question was a major preoccupation for architects in the 1990s[6]. Incidental as it may seem today, the question is not completely old hat. The initial, progressive shift towards the practise of maintenance is to be welcomed. But we still need to be

01 Gret and Hans Reinhard, Tscharnergut, Bern, Switzerland, 1958–61.
© Hannes Ineichen, Hans und Gret Reinhard, Niggli, 2013.

02 Gret and Hans Reinhard, Tscharnergut, Bern, Switzerland, 1958–61.
Restoration of the scheme by Rolf Muhlethaler Architekten, 2015.
© Rolf Mühlethaler Architekten.

conscious, looking forward, that the qualities or values of constructions built between 1945 and 1975 are only rarely recognized and safeguarded. A real transfiguration of the contemporary city is silently under way all around us.

A silent transfiguration: from ordinary housing...

In his reinterpretation of the Wohnsiedlung Heuried, by Paillard and Leemann, at Wiedikon (1969), Adrien Streich hides a minutely conceived thermal upgrade in the fluid profile of his new envelopes. For the Göhnerswil-Volketswil (1969) by Marcel Meili and Markus Peter, metamorphosis provided an occasion to reflect on the methods of industrialized production by means of superimposed prefabricated timber-structured panels over the original *Plattenbau*. Lacaton and Vassal, along with Drouin and Hutin, at *Cité du Grand Parc*, Bordeaux, are building on the *Tour du Bois-le-Prêtre* experience, with an intervention that is primarily designed for economy and includes winter gardens and prefabricated concrete balconies, applied onto the façades, the original expression of which is to be utterly reconfigured.

Set against landmark operations such as these, on ordinary housing to which each designer has in his own way contributed a "+Plus"[7] to the existing fabric (effectively a new building), it is a pity that more common practise generally misses the mark. Major physical interventions, clumsy on the aesthetic level, never mind the heritage impact, are the norm. They are made independently of the intrinsic qualities of buildings. Tougher energy legislation is compounding the issue. New, over-insulated and ventilated façades are popping out all over, flattening modeled detail and erasing lines of force that were once described with utmost care. We have metal siding and fiber-cement wrapped around volumes and cloaking balconies, losing nuanced reliefs, simplifying and impoverishing the volumetrics. Window joinery is growing thicker, replaced by heavier frames (most often in PVC) capable of supporting triple glazing.

And as for color — cliché of clichés — look no further than the "makeover" treatment of the remarkable BBPR Gratosoglio quarter in Milan (1963–71), or the Tour Super Montparnasse, Paris, by Bernard Zehrfuss (1966–69): intelligent juxtaposition of materials and textures, meticulously rendered by designers of the 1960s, ditched for a checkerboard of garish tones, "brightened by a touch of color," usually an astonishing shade of red straight from the standard cladding industry color-chart. Even attempts to "preserve" original characteristics by adding a new external layer evoking the colors and materials of the existing — as seen at the *Courtillères* housing estate, by Emile Aillaud, at Pantin (1954–56) or the *Unité d'Habitation* at Evere in Belgium (1953–60) by Willy Van Der Meeren — look like caricatures.

These clumsy, irreversible "thermal renovations" follow a trend for "upgrading" or, more prosaically, achieving "code compliance" that too often rides roughshod over the need for a prior determination of the value of the built object and ignores its intrinsic qualities. Undertaken at huge cost, they should give us pause for reflection.

...to housing heritage

The imperatives of energy conservation — rightly recognized as inescapable — are becoming the pretext for giving buildings a new identity. In a more subtle way it seems that even objects acknowledged as of exceptional historical importance might not be free from harm in spite of the tight constraints of the heritage planning context.

While some interventions — such as the *Unité d'habitation* in Marseille — have fortunately established constraints for energy retrofitting as a priority from the outset, others cases like the *Siedlung Halen*, Berne-Kirchlindach (1955–61), an iconic housing estate by *Atelier 5* known and admired well beyond the Swiss border, face an uncertain future.[8]

In much the same vein is the recent "energy upgrade" of the *Miremont-le-Crêt* complex, Geneva (1956–57) by Marc

03 Aerial photo of the satellite suburb in heavy prefabricated units of Göhnerswil-Volketswil, Switzerland, 1969. © F. Furter, P. Schoeck-Ritschard, Göhner Wohnen, Hier+Jetzt, 2013.

04 Georges Addor, Jacques Bolliger, Dominique Julliard, Louis Payot, Lignon Satellite Precinct, Geneva, Switzerland, 1963–1971. © Addor & Julliard Archives, Geneva.

J. Saugey. Listed as a *Monument Historique* in 2002, it illustrates the limitations of the exercise where there is no clear strategy setting out what is to be achieved[9]. On one level, a fruitful cooperation involving the cantonal heritage and energy efficiency authorities has spared Saugey's building from the worst effects of "code compliance" — meaning radical alteration — allowing performance below the legal consumption limits thanks to a series of well-conceived offsets. But on another level, the need to demonstrate "exemplary" energy efficiency outcomes has by default sanctioned an overall "upgrade" strategy that uses a repertoire of hi-tech, thermal-performance products aiming to meet insulation values similar to those of new constructions, even though they have somewhat uncomfortable consequences in terms of the visual and architectural qualities of the original ensemble…

Responsible ways forward

Emblematic of these modern works, where notions of lightness and transparency play a crucial role, marrying technical and architectural innovation, the case of the "energy upgrade" at *Miremont-le-Crêt* encapsulates the difficulties of reconciling the cultural challenge of heritage conservation with environmental paradigms. As we have said, on another scale, built assets are repeatedly faced with hasty and all too radical transformations with no overarching strategy capable of placing limits on what is effectively a transfiguration of the contemporary city. Aside from cultural considerations — or even just the architectural ones, the general "dumbing down" of our environment — with recession on the horizon we should be looking at this practise with a new sense of urgency. In stating that "the different strategic options for restoration stem from, among other things, a precise analysis of the existing building", technical guideline 2047 *Rénovation énergétique des bâtiments*, recently published by the *Société des Ingénieurs et des Architectes suisses* (SIA), gives crucial indications.

This salutary stance has grown out of a number of highly significant experiences. A case in point are the guidelines developed for the impressive Barbican complex in London (1955–82)[10] which identify the original elements as the sole traces of authentic fabric, the only evidence capable of expressing the complex's architectural qualities, including the often neglected issue of exterior spaces. In Switzerland we can point to the important work by architects Miller and Maranta in advance of the energy upgrade works to Hermann Baur's Siedlung im Lee scheme, in Basel (1963). From them we have learned that detailed knowledge of the fabric is a vital necessity for targeting thermal improvements to the built object at close quarters, to conserve its intrinsic characteristics but without rejecting substantial energy savings. By the same token, the intelligent pilot project for the upgrade of the Tscharnegut in Bern (Hans and Gret Reinhard, 1958–61), devised by Rolf Mühlethaler, which is now in progress, is a compelling demonstration of the indispensability of adaptation to current circumstances in terms of energy but also the typological needs of the sector. It manages to respect the striking urban forms within this representative post-war housing scheme, an ensemble well worth preserving.

Equally, the highly conclusive experience of the TSAM Laboratory and its applied academic research at the *Cité du Lignon* was recently extended to other late 20th century *grands ensembles* in the Geneva area for a research project supported by the *Stiftung zur Förderung der Denkmalpflege* (Foundation for the Promotion of Conservation). An appraisal of buildings according to a wide range of constructional types — from a masonry facade with openings in the *Quai du Seujet* (1964–76), to the externally insulated prefabricated concrete panel of the *Cité Avanchet Parc* (1973–77), not to mention the Honegger buildings in the Carl-Vogt (1960–64) and the curtain wall of the Meyrin residential suburb (1960–64) — has shown how the balance between

05 E. Göhner SA, Steiger+Partner AG, Walter Maria Förderer, Avanchet-Parc, Geneva, 1971–1977, scheme study. © Archives d'Architecture, University of Geneva.

06 Addor & Julliard, Julliard & Bolliger, Housing complex "*quai du Seujet*", Geneva, Switzerland, 1968–1976. © Addor & Julliard Archives, Geneva.

preserving the built object and making sizeable thermal improvements generally comes in at around 80–90% of the legal requirement, depending on the techniques used. The 10–20% that still needs to be achieved to attain current standards implies heavy and highly destructive interventions which are technically challenging and therefore entail an exponential increase in build costs for an equivalent life cycle. For existing housing assets, the price in conservation terms — and more prosaically, in terms of economic investment — appears out of proportion.

In place of this "intensive therapy", which exacts such a heavy price, we should be looking at responsible steps to highlight the notion of "built heritage as resource" — essentially, something very akin to the *use value* imagined by Alois Riegl — accepting building performance ratings that, while not perhaps the best, at least sizeable or substantial reductions in consumption to be coupled perhaps with gains from renewable energy.

As for highly significant items — "young monuments" to use the phrase suggested in a thematic issue of *werk, bauen+wohnen,* recently — an explicit stance is required: can one reasonably aim for energy excellence by demanding of an existing building with acknowledged heritage value that it meet the performance needs of a new building, rigidly established by rules that have evolved into extremely strict limit-values? The response is nuanced. In balancing preservation of the built fabric with the environment, perhaps we need to be broadening the issue and reversing the trend. In other words, the building itself should define the limit of interventions, depending on intrinsic material characteristics opportunely mapped during preliminary studies. This gets around the issue of a strict application of standards, which so often have repercussions, and potentially irreversible ones, on the integrity of objects and, more broadly, the appearance of our cities. It is not a matter of neglecting the paradigm that requires us to respect the very legitimate need to reduce energy consumption and CO_2 emissions. Rather it is a matter of calibrating performance improvements more closely to the built object, prioritizing smaller, targeted interventions, *ad hoc* responses developed from closer contact with the built fabric and geared towards accommodating it in a way that improves user comfort. This pragmatic and sympathetic approach should be adopted more widely as part of the project of conservation of recent heritage. This is a "demanding brief"[11] illustrating, above all, the intelligent and culturally aware position the designer must be ready to occupy. ■

Notes

1 Otto Hainzl, *Corviale*, Berlin, Kehrer, 2015.

2 http://corviale.it. The contest for the Corviale refurbishment followed several years of discussions on the future of the "Serpentone" (as it is known). Rediscovery of this ensemble — at one time regarded as a problematic estate — has benefited considerably from the input of residents through a series of socio-cultural initiatives.

3 David Cameron, "I've put the bulldozing of sink estates at the heart of turnaround Britain", *The Sunday Times*, 10 January 2016.

4 For example, the good recent article in the French newspaper *Libération*: Tonino Serafini, Sibylle Vincendon, "*Grands ensembles: démolir les clichés, pas les cités*", *Libération*, 7 October 2015.

5 Adopted in 2011, during the conference *Zwischen Baukunst und Massenproduktion. Denkmalschutz für die Architektur des 1960er und 1970er Jahre,* the Bensberg Charter aims to "refine classical history of art assessment criteria of the period to take account of the full breadth of programmatic aspects, such as technological innovation, production techniques, the demands of flexibility and variability, the aesthetics of production in series, etc." Rheinischer Verein (ed.), *Charta von Bensberg zur Architektur des 1960 und 1970*, 2011.

6 Françoise Moiroux, "*Faut-il détruire les grands ensembles? De l'univoque à la polyphonie…*", special report, *D'Architectures*, 2004, 141.

7 We refer to the research heading « + », a rehabilitation strategy for large scale housing schemes in France, devised by Druot, Lacaton & Vassal. Cf. Frédéric Druot, Anne Lacaton, Jean-Philippe Vassal, *Plus, Les Grands Ensembles de Logement. Territoire d'exception*, Gustavo Gili, 2007.

8 Despite "guidelines" published in 2013 by the Canton of Berne heritage conservation department, it is proving difficult to make headway with an energy retrofit project for the envelopes of the Siedlung Halen that respects the place's exceptional heritage values; Franz Graf, Giulia Marino, "*Mirabilia ou ressource durable? Le patrimoine récent à l'épreuve des enjeux énergétiques*", *Kunst + Architektur in der Schweiz*, 2, 2015, 58–65.

9 Giulia Marino, "*Kampf um Millimeter. Renovation der Wohnhäuser Miremont-le-Crêt in Genf von Marc-Joseph Saugey durch meier+associés und Oleg Calame*", in *werk, bauen+wohnen*, 1–2, 2016, 36–41.

10 Barbican Estate, London, Chamberlin, Powell & Bon architects, 1955–82; listed *Grade II*, this exceptionally significant building was the subject of a series of studies by a working group composed of different institutional actors and Avanti Architects, to establish guidelines for conserving the tower blocks. Initial conclusions set out clear indications on respecting the materials and color palette used for the original façades. Timber frames of the large window panels could easily accommodate insulated glazing units to replace the single glass of the original. Avanti Architects, *Barbican Listed Building Management Guidelines*, vol. II, October 2012.

11 "Editorial", *werk, bauen+wohnen*, issue Junge Denkmäler, 10, 2013, 4.

References

GRAF, Franz, MARINO, Giulia, *"Mirabilia ou ressource durable? Le patrimoine récent à l'épreuve des enjeux énergétiques"*, *Kunst + Architektur in der Schweiz*, 2, June 2015, 58–65.

GRAF, Franz, MARINO, Giulia, "Modern and Green: Heritage, Energy and Economy", in Ana Tostões, Liu Kecheng (dir.), *Docomomo International 1988 – 2012: Key Papers in Modern Architectural Heritage Conservation*, China Architecture & Building Press, Pekin, 2012, 183–193, 152–161.

GRAF, Franz, MARINO, Giulia, *"Strategien zum Erhalt moderner Architektur"*, *werk, bauen+wohnen*, n° 10, octobre 2013, 20–25.

GRAF, Franz, MARINO, Giulia, *La cité du Lignon 1963 – 1971 — Étude Architecturale et Stratégies D'Intervention, Cahier Hors Série de la Revue Patrimoine et Architecture*, Infolio, 2012.

GRAF, Franz, MARINO, Giulia, *Patrimoine Moderne, Énergie, Économie: Stratégies de Sauvegarde*, EPFL–TSAM, Stiftung zur Förderung der Denkmalpflege, 2015.

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