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BIOGRAPHIES

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RESTORING JEAN PROUVÉ. THE “BUVETTE” AT ÉVIAN-LES-BAINS (1955-57) AND OTHER TECHNICAL OBJECTS

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ABSTRACT

Completed in 1957, the new *buvette* (pump room) of the Source Cachat in Évian-les-Bains (France) is to be classed among 20th century icons. The building was the outcome of a fruitful partnership between an experienced architect, Maurice Novarina, an “inspired constructor”, Jean Prouvé, and an architect-engineer, Serge Ketoff, who was capable of combining a highly expressive sensibility with rigorous structural calculations.

The result of this collective adventure was a “technical object” of outstanding value. The Évian *buvette* is indeed a bravura piece, a tour de force brilliantly carried out, and goes far beyond the showcasing of industrial materials. “Precision mechanics” rather than simple “Meccano”, the building is a perfectly calibrated assembly of highly diverse elements and components, in accordance with a relationship of true interdependence that takes advantage of this tensioning.

Figure 1. M. Novarina, J. Prouvé, S. Ketoff, new buvette of the Source Cachat in Évian-les-Bains, 1955-57 © MNAM-CCI, Centre G. Pompidou.



The very nature of this “ordered system” entails an equally rigorous approach to restoration. The logic of the interlocking of the constructional elements then becomes the unifying thread of any intervention aimed at preserving the building, today a listed monument.

This paper is also an opportunity to resituate the Évian *buvette* in the current state of Jean Prouvé’s oeuvre with respect to its preservation. Between *reassembly*, *reconstruction* or *restoration*, the approaches adopted in recent years have been highly diverse, not to mention the multitude of buildings that have been dismantled, dismembered, restored and then auctioned off as design pieces. This exceptional *corpus*, through a survey coherent with its current state, yields multiple reflections on the heritage of the 20th century and its preservation.

1. INTRODUCTION

“The Évian *buvette*, 1955-57. The best proof that architectural beauty is often based on the accuracy of technical solutions, which are themselves subject to the creator’s enthusiasm.”¹ As observed by the architect and critic Ionel Schein, the *Nouvelle Buvette de la Source Cachat* is one of the finest demonstrations of Jean Prouvé’s innovative ‘pioneering spirit’,² in certain respects a manifesto, rightly recognised as one of his most significant works.

Resulting from the fruitful collaboration between the architect Maurice Novarina, the engineer Serge Ketoff and Jean Prouvé, the Évian building is a ‘technical object’ of great formal and ‘constructional elegance’,³ a “masterpiece of subtlety”⁴ of worldwide significance. Despite receiving early recog-

nition – the pavilion was listed as an object of national importance already in 1963⁵ – the *buvette* was yet subjected to some major alterations, especially when a new thermal spa was created on the site in 1984. Permanently deprived of its function as a public pump room at this time, then progressively decommissioned, the building is now closed to the public and suffers from a somewhat chronic lack of maintenance. This historic monument, neglected in recent years, deserves renewed attention, even consistent enhancement of its value, but above all respectful restoration. The most significant strategies of intervention will emerge from the building’s material history, meaning a thorough understanding of its constructional genesis and an analysis of its intrinsic characteristics, so enabling this emblematic work to regain its international influence.⁶

2. MATERIAL HISTORY

As is well known, “together with the exhibition building in Grenoble, [the *buvette*] was one of his creations that Jean Prouvé most cherished”.⁷ The brilliant and many-sided *constructeur de Nancy*, as he liked to call himself, claiming a technological formation responsive to the logic of industrial production, set great store by this singular object, seeing it as a crucial phase in the development of his ‘structural alphabet’ from the ‘coque’ (shell) type to the ‘béquille’ (crutch) type. The problematic context in which the project evolved further explains Prouvé’s particular attachment to the pavilion of the Cachat spring on Lake Geneva, conceived on behalf of the Évian mineral water company.

The construction of the *buvette* coincided with the last phases of the dispute that, since 1952, had pitted Jean Prouvé against L’Aluminium français-Studal, the majority shareholder in his company, which was seeking to enforce a radical shake-up in the organisation. The operations of the Ateliers Jean Prouvé at Maxéville (Nancy) – a ‘pilot factory’ and at the same time a research and production centre where ‘architects, workers and foremen were partners’⁸ were being called in question. Prouvé criticised the aberrant commercial operation and with it the ‘distortion of his ideas and their incoherent implementation’.⁹ This event would make a deep impression on him personally, but above all it marked a clear break in the career of this blacksmith who had become architect, engineer, entrepreneur and designer. The definitive separation came about just when the first working drawings of the *buvette* were passed to the client, in January 1956. At that time, Prouvé was therefore completely excluded from his Ateliers, his ‘mi-

cro-universe’,¹⁰ much more than a simple production facility, being the necessary and sufficient condition for his design process founded on the progressive improvement of the ‘prototype’. And then, in strictly legal terms, Prouvé had to give up his earlier patents, but ‘his dream, *making* things, had fallen through’. Once the founding experience of Maxéville was over, the method had to be completely rethought and, in these circumstances, the project for the *buvette* became a privileged opportunity for technological and constructional experiments. Surrounded by experienced collaborators – his son Claude and Jean Boutemain, the architect-engineer Serge Ketoff, Steph Simon, the gallerist who specialised in contemporary design furnitures, and the Goumy metal construction company – Prouvé took advantage of an apparently unfavourable context to produce a building of great merit, a ‘technological object’ that would become an icon of 20th century architecture.

2.1. A surprising Symphony of Materials

The process of “progressive reduction of the structure to simple elements”,¹¹ which began with the series of *écoles coques* (shell schools) in the early 1950s, was radical. The building in Évian is a clear demonstration of this: the symmetrical frameworks of the preliminary design were transformed into a succession of 12 *béquilles* (crutches) of sheet steel bent and welded and articulated on the ground, with their profile embodying the diagram of forces. The vertical supports, particularly effective as sculptural forms, and which mark off the essential space of the glazed parallelepiped of the *buvette*, are braced by a box girder with a bolted rectangular section; they were then stabilised by a series of steel tie rods arranged on the southern front and by an open-section longitudinal beam, also made of steel plate, anchored to the ends of the *béquilles*. The latter, and, to a lesser extent the uprights in the façade – made from extruded aluminium alloy profiles on the model of those designed by Prouvé for the Pavillon de l’Aluminium (Paris, 1954) – support the roof, an extremely striking smooth continuous surface with a double curvature in wood and steel. In spite of the apparent simplicity of the static scheme – a series of asymmetric frames, on which the roof seems to simply rest – the Évian *buvette* conceals such complexity as to make it difficult to read it according to the usual classification into constructional elements. It is impossible to dissociate the load-bearing structure, the envelope and the finishes; each component takes on multiple functions simultaneously (think of the aluminium uprights, which are both structural

Figure 2. The Évian *buvette* building site in 1956: the roofing complex © MNAM-CCI, Centre G. Pompidou.



supports for the roof and frames for the large windows). The coexistence of very different materials – steel, wood, aluminium, as well as stone and various plastics – also imposed a relentless logic on the assembly. Prouvé’s *pensée technique* orchestrated this “amazing symphony of materials”¹² with the complicity of the engineer-architect and mathematician Serge Ketoff, who was responsible for the structural calculations, taking – not without some difficulty! – civil liability for them.

2.2. A Patchwork Anthology

The complication lay in the fact that, having lost the Ateliers, Prouvé could no longer afford to design elaborate new components in bent sheet metal (the *tôle pliée* that had made him famous in the 1930s) or devices requiring complex assembly in cast aluminium. It was now a question of “creating an object conceived according to a rigorously feasible constructional concept”,¹³ as he himself pointed out. In other words, “*savoir-faire* became *pouvoir-faire*”.¹⁴

As in the project for his home in Nancy, completed a few months earlier in equally complex circumstances, the *buvette* at Évian became a ‘patchwork anthology’,¹⁵ in which each component was designed as part of a whole in a fiendish combination of constructional elements that can be traced back to the most disparate universes. “Prêt-à-porter”: industrial commercial products such as Triondal aluminium corrugated sheets for the roofing (an idea of Prouvé, later patented by his long-standing competitor Studal), or the Rousseau wood laminated-multilayer panels (developed by engineer Pierre Gauthier in 1948). ‘Haute-couture’: construction elements designed by Prouvé himself, suitably simplified to facilitate their manufacture by the small Goumy company. “Second hand”: above all components in light alloys – which required more complex extrusion processes than Goumy was unable to carry out – developed for projects on which Prouvé was working at the same time, so that he was able to simply reuse their matrices, such as the splendid drums in folded sheet aluminium of the entrance doors designed for the INP (P. Dufau, 1957). As for the uprights of the building’s envelope, these were actually retrieved when the temporary structure of the Pavillon de l’aluminium in Paris was dismantled and reused a few weeks later on the Évian building site.

Freed (momentarily) from the constraint of the notion of serial production, Prouvé played the card of elasticity. Although it was a mix of heterogeneous elements, on the whole the

Évian *buvette* was a meticulously balanced machine, a technological object in which the components were designed to work in perfect synergy. Its assembly, studied with meticulous care, enabled the stresses to be absorbed in keeping with the constructional role of its components and the nature of the different materials, taking into account, of course, their respective physical-chemical characteristics and their compatibility with each other. The control of the profile of the “tensed hyperbolic section” of the three-jointed roof, resembling a curved three-dimensional deck, testifies to the refinement of the technological solutions adopted, where Prouvé’s “instinctive understanding of the characteristics of materials and technical processes”¹⁶ played an essential role. The ability of the ‘constructor’ who took risks with a certain nonchalance reached its apex in the Évian *buvette*.

3. RESTORATION

The refinement of the constructional solutions as well as the impeccable control of their execution are attested today by the excellent state of preservation of the building. Diagnosis of it is rather reassuring, apart from some unfortunate alterations. Paradoxically, the complete lack of maintenance has preserved the original components, which are still in place. This is highly unusual in Jean Prouvé’s immense output, which has certainly been mistreated in recent years and which today raises major ethical issues going far beyond mere technical constraints.

3.1. Authenticity

Between the demolition of emblematic works (the splendid suspended prestressed glass façade at the CNIT at La Défense, replaced in 1988) or their complete reconstruction in a dramatically simplified version (the façade panels of the headquarters of the Fédération Nationale du Bâtiment in Paris, replaced in 1996-97), there are numerous examples of radical alterations, affecting both the production of the Ateliers at Maxéville and Prouvé’s subsequent experiments (the progressive and almost systematic disappearance of the facades panels is a testament to this). At the time of the Maison du Peuple at Clichy, a work from 1935 already heavily reworked in 1993-96, was threatened by an incomprehensible ‘extension’ project (a hotel 96 meters high!), the Évian *buvette* is a happy exception in terms of its material authenticity. Considered as an essential plus in defining the heritage value of the building, in keeping with established scholarly criteria, this crucial factor dictates the definition of the principles of the preserva-



Figure 3. The Évian buvette east façade, demolished in the 1980’s © ADHS.

tion project. The pieces that have survived the surge of unrestrained refurbishment that has clashed with Prouvé’s heritage over the last twenty years, have become valuable and unique evidence, which indeed deserve to be preserved as the only authentic trace, and the only one capable of expressing the architectural qualities of his built *œuvre*. In other words, the important presence of the original materials is a major asset; this encourages privileging conservation strategies rather than replacement.

3.2. An orderly System

The option of conservation in the face of the identical restitution of the components is naturally inscribed in the new recognition of the material values of buildings that one can observe in recent years in several significant operations on a European

scale. But leaving aside deontological considerations, the conservation approach is also necessary in view of the high degree of technicality of the Évian building and even more so because of the nature of the arrangement of the components. In recent years, many “demountables houses” have been carefully restored at great expense by a network of specialist galleries and then sold on to architecture buffs who appreciate “aesthetic stripped of all artifice”. Whether they are his Maisons Tropicales (1949) or the houses with axial gantry, for example, they are dismembered, the parts inventoried, straightened out, reset, chemically stripped, sanded, then treated and painted, to be finally reassembled, while making good any losses with new components reproduced identically or “using today’s technical means”, as Jean Nouvel did for the offices of the Ferembal factory.¹⁷

In most cases, these operations are carried out with the care generally lavished on collectable furniture (or cars!), so preserving the material and its patina. While they may be a valuable precedent for certain techniques of restoration of components, they cannot be taken as a model for the Évian building in terms of the procedure used. Just like the “rediscovery” and reassembly of the Pavillon de l’Aluminium in 2001, the comparison with the “nomadic” school of Villejuif is very telling. Five of its bays were dismantled, restored and reassembled, to be sold in 2011 (for 1’830’402 euros!) as a design piece. In the Évian building – precisely, a building, designed by Maurice Novarina and subsequently given material form by Prouvé – we are in another register, which excludes from the outset any attempt at dismantling it: true “precision machinery”, rather than simple Meccano, the *buvette* is actually a perfectly mastered assemblage of elements and components of very different kinds, which works with the stresses in a different way. Designed according to a balance of forces that appears obvious at first glance, but actually conceals a series of ingenious devices, the structure is a *tour de force* that goes well beyond the installation of materials mostly produced industrially. The true interdependence established between the constructional components is therefore to be considered as the real unifying thread running through the project by Jean Prouvé and Serge Ketoff and, furthermore, of any intervention in the Évian building to preserve its qualities. Only respect for the very close-knit relations uniting the different parts of the whole makes it possible to safeguard this “ordered system” which, in spite of its complexity, is perfectly accomplished in strictly technical terms as well as on the formal and architectural plane.

The logic of the assembly, or even the interlacing of the constructional elements – a true synergy, which has nothing of the logic of “industrialisation by compatible components” – dictates the measures to be undertaken. This means that, in order to avoid compromising the equilibrium and the tension of the whole, ingenious but fragile, it is advisable to adopt interventions *in situ*, avoiding at all costs, as far as possible, the removal of the components or their processing in the workshop, which would have catastrophic effects on the preservation of the whole. These are the conclusions that logically emerge from the preliminary studies of the TSAM laboratory at this stage. Finally, a last crucial point for the safeguarding of the Évian *buvette* has to be mentioned: the character of a true roofed space of this “pavilion amid the greenery” used exclusively in the summer period. It is a temperate space, largely open to the park, simply protected from the wind by the large glazed surfaces. Any operation aimed at converting it into an enclosed and heated space would entail unacceptable modifications both spatially (for example in the case of so-called “box-in-box” strategies) and materially, until its complete “reconstruction”, a heavy-handed operation, certainly incompatible with the status of Prouvé’s and Novarina’s building as a listed historical monument. The reflections that are currently engaging with the future use of the *buvette*, paralleling the preliminary studies for its restoration, have to take into account this fundamental criterion, indispensable to ensure the durability of a work that is both world-famous and unfortunately somewhat overlooked today.

Figure 4-5. The Évian building in 2017 © Photo TSAM-EPFL/Claudio Merlini.



NOTES

1 Ionel Schein, “Jean Prouvé”, *Bauen+Wohnen*, 1964, 277.
2 Gérard Gassiot-Talabot, “Jean Prouvé”, *Cimaise*, 1961, 112.
3 Joseph Abram, *L’Architecture moderne en France*, 1940-1966, Paris, Picard, 1999, 91.
4 Jacques Lucan, *Architecture en France (1940-2000). Histoire et théories*, Paris, Le Moniteur, 2001, 108.
5 Completed in 1957, the building is included in the “Liste des monuments modernes à protéger au titre de la législation sur les Monuments historiques” drafted in June 1963 aware of the need to broaden the scope of the heritage. The building was registered as a Historic Monument in 1986, then ranked in 2013.
6 This contribution is the result of the Évian *buvette* restoration preliminary studies carried out by Giulia Marino and Franz Graf within the scope of the TSAM laboratory at the EPFL in 2016-2017.
7 Gérard Gassiot-Talabot, cit., 112.
8 Benedikt Huber, Jean-Claude Steinegger, *Jean Prouvé. Une architecture par l’industrie*, Zurich, Artemis, 1971, 201.
9 Bernard Marrey, *La mort de Jean Prouvé*, Paris, Editions du Linteau, Paris, 2005, 28.
10 Ionel Schein, “Jean Prouvé”, *Bauen+Wohnen*, 1964, 1.
11 Gérard Gassiot-Talabot, cit., 112.
12 Pierre L. Debomy, “Entretien avec Jean Prouvé”, *Revue du CIMUR*, 1968, 38.
13 Benedikt Huber, Jean-Claude Steinegger, *Jean Prouvé. Une architecture par l’industrie*, Zurich, Artemis, 1971, 28.
14 Jean-François Archieri, “A partir de Maxéville”, Raymond Guidot, Alain Guiheux (Eds.), *Jean Prouvé constructeur (1901-1984)*, Paris, Centre Georges Pompidou, 1990, 149.
15 Catherine Drouin, Raymond Guidot, “Deux maisons à histoire”, *ibidem*, 209.
16 Peter Rice, *L’immaginazione costruttiva*, Milan, Marinotti, 2012 [S. Rice, 1994], 81 and 84.
17 <https://www.patrickseguin.com/fr/designers/jean-prouve-architecte/inventaire-maison-jean-prouve/maison-feremba-1948/>.

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The Continuity of Change



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