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MIMESIS / ARCHITETTURA

22

With the contribution of

ARCHITECTURE in the ALPS

Heritage and design

edited by Davide Del Curto, Roberto Dini, Giacomo Menini

MIMESIS

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APPENDICES

Architecture in the Alps.
Heritage, design, local development

Davide Del Curto

The relationship between the Alps and the building heritage of the twentieth century is the thread that binds the writings of this collection. The authors reflect on the role of architecture through retrospectives, attempts at synthesis and the story of their own experiences. *Absorbing Modernity* is the theme that the beginning of the millennium also puts to the Alps, which are no longer just the *Playground of Europe* where to restore mind and body from the stresses of labour, but a land of disputes, where very current issues concerning concepts such as heritage, development, community must also find an answer within a scenario of climate change.

In the confrontation between modernity and traditional knowledge, a lot of water has passed under the bridge since Adolf Loos' lucky aphorism which recommended that the architect should understand and interpret tradition, thinking like a well-informed farmer. Other attempts to process the opposition also appear to have been acquired, from the *terceira via* of Fernando Tavora to the different ways in which historical materialism has been applied to the interpretation of spatial phenomena. During the twentieth century, construction and landscape archaeology and the studies on building typologies[1] have proposed even radical positions in the face of the "inevitable" abandonment of rural settlements and have helped to update architecture as a discipline which is able to interpret the physical reality in which the human experience occurs, and to make suggestions to support

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1   M. Bosshard, E. Consolascio, A. Rossi, *La costruzione del territorio nel Canton Ticino*, Lugano 1979.

its development[2].

However, the problem nowadays is no longer that of asserting an idea of modernity intended as the ability to give current responses to the renewed request of living in the mountains and of enjoying its treasures. This perspective appears outdated in the *shrinking* and *sprawling* scenario, where the English-speaking neologisms indicate that across the Alps, as in the rest of the continent, there is no demand for new buildings and construction activities take place more in response to the economic sector's needs rather than to a new settlement demand. On the other hand, actions oriented to conservation, regeneration or replacement of what has already been built are still weak, and there are only rare cases where the more recent mainstream oriented towards efficient energy has resulted in good building conversions. The vast heritage of the twentieth century has summarily been confined to the field of the *ugly, polluted, badly executed* and it certainly requires energy performances appropriate to the current standards of sustainability, but it also calls for urgent improvements in its architectural quality and to be able to come to terms with the Alpine landscape. The weakness of this second instance, and the fact that it is only marginally shared by contemporary society leads to a crucial question: what is the role of the architect in the Alps, today?

With the flourishing of conferences concerning building in the mountains, alpine architecture awards, exhibitions and publications, architecture has been involved in discussions about the Alps for the last thirty years, both from a protection point of view and from the point of view that deals with development, which has only partially affected how that growth took place. Architecture has been replaced by engineering construction, as the technique to meet the demand for places and buildings in which to shape a certain type of society. From a cognitive point of view, architecture has been flanked by landscape studies, through which the mountain has been described and interpreted mainly on the basis of other disciplines such as geography, economics, aesthetics, geo-philosophy. The architect remains the holder of a knowledge which is difficult to define, such as the discipline with uncertain boundaries which generated him, and which can be identified in the ability to interpret the *genius loci*; architects have only in part succeeded in being credited with being the figures able to link the multiple aspects of the landscape, of society and of the construction sector; they sit at the edge of the discussion where the Alpine Macro region is planned, and their expertise translates into conferences, lectures, recommendations,

2   S. Ombellini, *Tradizione vs Immaginazione. Architettura contemporanea nell'area alpina. 1981-2001*, doctoral thesis, University of Parma. Department of Civil Engineering and Architecture, 2009.

and in a professional activity which is not very effective on the ways the territory is transformed[3]. The architect would like to recover his role of *leader* in the construction industry and in the administration of the territory, which he did not manage to conquer during the twentieth century. Unlike the thermo and the structural engineer, he is, however, still uncertain in defining his own position in the chain of Alpine *stakeholders*. Even in the Alps, architecture proves to be a "soft (or weak) science", damaged by the recent past of the housing boom and perhaps unsuitable to solving the consequences of that period. This is the same conclusion that motivates the effort to update the thinking and actions of today's architects, and it is necessary to avoid that the Alps should be reduced to the ground where internal disputes in the world of architecture are renewed, as in other sectors of modern thought, where the mountain has begun to acquire dignity not as such, but merely because it is functional in supporting the considerations developed by several schools of thought[4]. On the other hand, as evidenced by Bruno Reichlin, the Alps are also an international laboratory where quality architecture and a lively reflection occur on the identity of the discipline and its tools. These tools require to be substantially upgraded, even beyond a certain *social* attitude concerning participation and communication, e.g. the Renzo Piano's "municipal" architect which should operate similarly to a medical officer in patching up suburbs. This book offers an anthology of writings concerning the activities and thoughts of architects working in the Alps, searching for the reasons why architecture should renew an active and qualifying role in transforming the territory within the on-going projects and research[5].

 Managing the controversial legacy built by fathers and grandfathers is the dimension in which architects who are now forty years old must operate. Holiday homes, sanatoriums, hotels, ski resorts, infrastructures are an immense wealth compared with what was built in these remote areas during all the previous centuries, and which for the most part, today simply no longer serve the purpose for which they were conceived. This legacy includes the samples of that modernism animated by myths and

3   A. Giorgi, A. Borsdorf, G. Köck, T. Scheurer (edited by), *Le risorse delle Alpi: Utilizzo, valorizzazione e gestione dal livello locale a quello macroregionale*. Atti del convegno, Darfo Boario Terme, 17-19 settembre 2014, Biblion Edizioni, Milano 2014.

4   L. Mocarelli, *Dalla montagna immaginata alla montagna vissuta. La percezione degli abitanti del piano tra rappresentazioni idealtipiche e realtà (secoli XVI-XX)*, in J. Mathieu, S. Boscani Leoni (edited by), *Die Alpen! Zur europäischen Wahrnehmungsgeschichte seit der Renaissance-Les Alpes! Pour une histoire de la perception européenne depuis la Renaissance*, Peter Lang, Bern, 2015 pp. 115-128.

5   M. Mulazzani, F. Chiorino, *Vivere le Alpi. Materiali per una ricerca*, Rubbettino Editore, Soveria Mannelli, 2015.

various impulses which marked the different stages of colonising the Alps, both when they were built, and even more so when they remained fine words on paper as visionary projects[6]. There are works of great quality and likely to be promoted to a heritage *status*, regardless of their age, such as the Seehotel Ambach by Othmar Barth, presented by Wolfgang von Klebelsberg. Others which should be placed on the difficult path to recovery, regeneration, redevelopment or any other variation of the re-plus positive suffix, which would like to make a stand for a vital reaction to the inactivity produced by abandonment, according to which «getting lost and perishing, is more moral than preserving»[7]. What to do with a large abandoned sanatorium? And with the Hotel Paradiso by Giò Ponti in Val Martello, thoroughly studied by Luciano Bolzoni? With the Eni Village in Borca di Cadore, where Gianluca d'Inca Levis and Dolomiti Contemporanee are setting up a new and energising cultural site? With the Ski resorts on both sides of the Alps, whose history, construction aspects and territorial dimension Yvan Delemontey, Caterina Franco and Rosa Tamborrino comprehensively describe? In the meanwhile, the traditional buildings, already photographed by Giuseppe Pagano and Mario Cereghini, are almost completely lost due to heinous demolitions, neglect and lack of maintenance, as pointed out by Dario Benetti. These treasures that we have shunned for a long time in order to follow the lure of modern concrete, polymers and ribbon windows, are now a rarity, and there is no option but to try to preserve them scrupulously, promoting sustainable and widespread forms of use and consecrating the most intact examples as museums.

Capaul&Blumenthal, Conradin Clavuot and Armando Ruinelli show us how it is possible to carry out quality architecture in the Grisons, thanks to a professional activity stably based on operational research which dedicates a certain amount of time and intellectual resources to each project, superior to other contexts where - no use denying it - the same job is paid less and within the economy of an architectural studio, the duties of meeting the turnover subtract energy from the quality of the project. From Lower Raetia, Simone Cola responds with a group photo of architects born in the mid-sixties who brought the lessons learned from the masters in lowland universities to the Valtellina, purified from all formalism and other academic sins and renewing the disenchanted balance between internationalism and the search for local identity. Enrico Scaramellini shows us how even an intervention on banal buildings provides the opportunity to

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6   *Alpi, luoghi da sogno. Proiezioni e progetti utopici*, exhibit curated by Susanne Stacher, Merano 30 May - 7 September 2014.
7   T. Mann, *La montagna incantata*, translated by Ervino Pocar, Il Corbaccio, Milano 2004, p. 524.

metabolise the uncertain legacy of the twentieth century and to requalify the extraordinary alpine landscape where they were clumsily placed. This is an extraordinary opportunity for active repentance for a whole generation of architects, called to intervene on what is left of a misunderstood concept of modernity: design-less summer homes in blocks of concrete and polystyrene, rustic houses badly deformed by speculative logics, left-over ruined infrastructures. From a wide selection of experiences, Roberto Dini distils important reflections on how to reactivate the built heritage and in a kind of chicane through naiveties and distortions, he shows how it is possible to interpret the mainstream of saving energy at all costs, as a *chance* to improve the architectural quality of what has been built, or more simply, "to do architecture"[8]. This consists in understanding and identifying the design of the new elements among the various themes of the project and in extending the lifespan of the buildings, in a perspective entirely in line with the other mainstream of our time, that is sustainability. By redeveloping the built heritage, ruins are forestalled and the energy-intensive treatment of the rubble is contained. The improvement which elevates a stock building without qualities to the rank of architecture, is obtained through the proper tools of the discipline: architectural design and project, i.e., with the specific skills of the architect and in this sense as well, the built heritage must be considered in its true meaning of witness or link between past and future, between memory and development.

From a discipline point of view, there is once again the opportunity to overcome the stale juxtaposition between project supporters and heritage defenders, even in the Alps. Architects feel equally crippled by mutilations wrought by those who continue to act in defiance of the culture of the project or even in the absence of a project. It should by now be established that the project always contains a destructive component, which also exists in the conservation project, to the extent to which preserving means wisely administering the transformation of things and their uses, focusing on the possibility of maintaining, rather than dispersing, valuable resources because they are not infinite, in a logic that today we would define as sustainability. This consists in focusing on the converging points between protection and architectural project around the concept of quality, putting aside outdated differences in front of the increasing amount of obsolete and vulnerable buildings which has been poured over the Alps, in spite of that dispute. Similarly, the sterile exegesis on the hendiadys heritage&project, heritage-for-development, conservation&valorisation, demonstrates how

8   M. Berta, F. Corrado, A. De Rossi, R. Dini, *Architettura e territorio alpino. Scenari di sviluppo e di riqualificazione energetico-edilizia del patrimonio costruito*, Editore Regione Piemonte, Torino 2015.

studies concerning the impact of cultural heritage on the European society, its culture, economy and environment[9] are far from the most prominent architectural culture and how the poor knowledge of the physical nature of existing buildings is the basis of the difficulty in recognising them as a heritage[10]. From a legal point of view, finally, it is worth to remind as the concept of heritage is the basis of the modern European identity, and that preservation activities consist in protecting the value of the heritage for the benefit of everyone, including of those who feel crippled by this protection, because it is a limit to the possibility of an immediate exploitation, by an individual or a group. Conservation means protecting the value of an asset from clumsy or rash actions and, in the perspective of the climate change, from specific risk factors, allowing the possibility of accessing it in the future.

Two visions have now been reconfirmed concerning the different facets of "Alpine Heritage", both presuming the same awareness of the value of the Alps as a place of enchantment or as the ground to carry out neo-positively art and technology. This is an underlying theme which we find already in the romantic juxtaposition between Ruskin and Viollet-le-Duc, so for the Alps too: *le mot et la chose sont modernes*. Viollet-le-Duc considered the Mont Blanc the greatest monument in Europe, and the peaks of the Alps successive different corrupted gradations of an original geometric perfection of which they nevertheless remain the guardians, just like the interrupted and corroded great cathedrals which bore witness to the wisdom of their medieval masters and which therefore deserved to be completed. The great architect did not extend the same integration purpose to the mountain peaks until 1917, when Bruno Taut suggested their utopian interpretation, with the projects of the dome on the Resegone or of the glass globe on Monte Rosa. John Ruskin, on the other side, had travelled with his parents in the Alps since he was a pupil, and they had impressed his extraordinary sensitivity and were painted in his famous watercolours of sweet and terrible landscapes, in any case magnificent and uncorrupted, therefore worthy of protection from any modern attempt of penetration and exploitation.

That modern idea of the Alps, is now confirmed as a balance between two contrasting and complementary visions: on the one hand there is a world of images, sounds and flavours that recall very ancient times, immune to today's ups and downs; on the other, there are our lives, productive and

9   J. Sanetra-Szeliga (on behalf of the CHCfE Consortium), *Cultural Heritage Counts for Europe*, Published on behalf of the CHCfE Consortium by the International Cultural Centre, Krakow 2015.

10   S. Moroni, *Beni di nessuno, beni di alcuni, beni di tutti: note critiche sull'incerto paradigma dei beni comuni*, in «Scienze Regionali», n. 3, 2015, pp. 137-144.

compulsive, oriented towards rational exploitation of the immense treasures that the Alps guard: water, energy, raw materials, atmospheric carbon, pure air and regenerating silence, to be administered in brief and fleeting stays. This dichotomy rests on the shared vision of the Alps as "heritage" i.e., as an existing a priori subject in respect of the various attempts at modernising, exploiting and reducing attempted by modern man. It is a heritage which must be understood, feared, challenged but also protected, not so much and not only because it is threatened, but also because its very existence represents a necessary alter-ego of the multitude which flocks its slopes, along the pre-alpine megalopolis which develops seamlessly from Munich to Grenoble, from Turin to Trieste. The Alps have not been one of the Planet's unexplored places in globetrotters' accounts for a long time now. Nevertheless, the region that extends from the Maritime Alps to the Tatra Mountains contains a world which is still largely non-urbanised and with a low human presence. This cold and spiky region, which we see with unchanged deference from an airplane porthole, extends just a few kilometres from our busy lives, as a «foreign country»[11] imposing and alien, no longer inhuman but still capable of scaring, yet sweet and sublime that seems to cherish, in the purity of its rock crystal, a balance beyond the transient frenzy of human affairs and their constant search for meaning.

   Panos Mantziaras suggests the inspiring image of contemporary Alps as an ecological and semantic *buffer* in the heart of the world's most urban-ised, populated and stratified continent, which supplies oxygen, pure water, and entertainment venues. It reminds us of the transitional season of cheap energy and induces us to reflect on the mainstream of sustainability, which rests on the awareness that resources are not endless and identifies the Alps as a common material and immaterial heritage to be preserved and handed down.

   Antonio De Rossi and Federica Corrado remind us that the Alps are an early European heritage, today identified with the image of a geographi-cally across-the-board, politically transnational Macroregion, yet analo-gous to many of the aspects of daily life. By illustrating the case of Ostana in Piedmont, Massimo Crotti shows how architecture is called upon to develop updated responses to the renewed demand for working, moving to and living in the mountains, definitively overcoming the mere exploitation-oriented approach which has characterised the lengthy colonisation of the Alps by modern society. It is not necessary to build on a mountain pasture in order to enjoy the Alps and thus Luca Gibello climbs in a brilliant syn-thesis through an ideal ascension towards the high lands of the mountain huts. Here, architecture's dual character of permanence and impermanence,

11   D. Lowenthal, *The past is a foreign country*, Cambridge University Press, 1985.

is highlighted by the presence of the great and eternal mountain masses.

   The Alps are made of mountains and according to Petrarch, they are the «screen that nature placed between us and the German anger», while today they increasingly represent the meeting place between valleys, between east and west, and also between the north and south of Europe, like a *mare nostrum* where to renew internal dialogue and the relations with the neighbouring worlds. These are certainly partially disenchanted mountains, from the moment when modernity took away their mystery and fascination, as occurred for the night when electric light was invented. However, mountains are still capable of producing awe, wonder and fear. No longer unknown, they are still threatening and increasingly threatened by the looming perspective of climate change and yet still magical, that is, possessed of intact virtues capable of producing in man a surge of repentance that causes him to develop more sustainable relationships and ones which, basically, are more human.

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Fig. 1. *Villa Garbald*, Castasegna, Switzerland (Gottfried Semper 1863; extension by Miller&Maranta 2004)

On the next page
Fig. 2. Alpine landscape, 1950s chocolate box
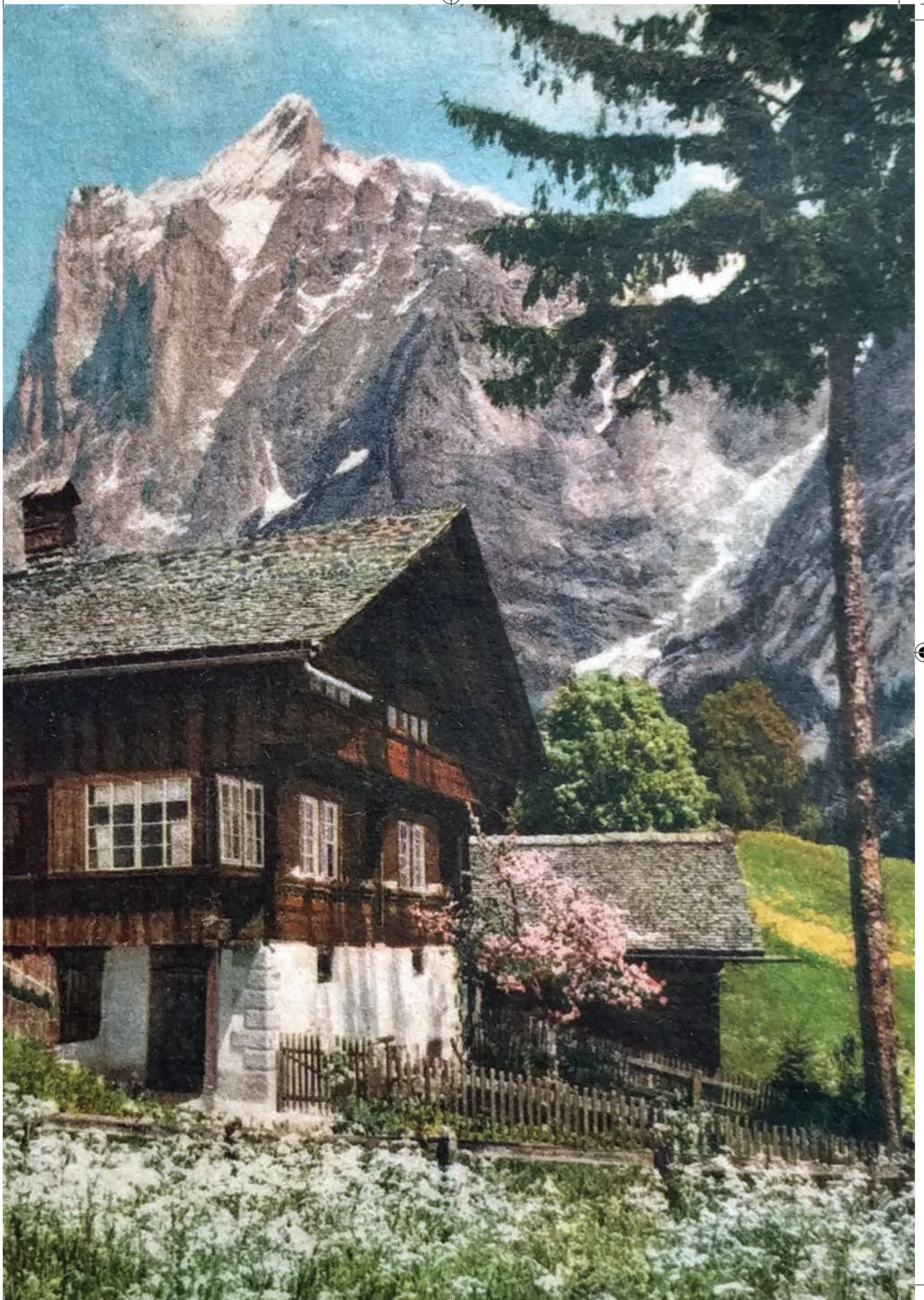
Mountain architecture.
Histories, perspectives, controversies

Giacomo Menini

The cultural landscapes of the Alps

Mountain architecture presupposes a close dialogue with nature. At high altitudes, architecture is drawn against the sky and has a direct link with the slopes and woods, the rocks and rock faces. Yet beyond the relationship with nature, the relationship with the history and culture of places remains. The Alps have been inhabited since time immemorial and people have transformed them by building a great variety of cultural landscapes: it is enough to observe the many paintings of the Alpine landscape which alongside nature depict people, their homes and their jobs.

In the encaustic or hot wax paintings that adorn the *Salone d'onore* (Hall of Honour) of the Sondrio Provincial Authority building – by Gianfilippo Usellini (1934) – one may observe the landscapes of the Valtellina transformed by traditional economic activities such as wheat and vine growing, livestock farming, granite and serpentine schist rock quarrying and forestry. Each of these landscapes is populated by men who are distinguished by specific customs and life habits. An image of the Valtellina which is certainly different from that of any other mountain landscape, in Europe or in Italy. Were we also able to perceive its sounds and flavours, we would also notice an infinite variety of differences in languages and legends, in music and rituals, and in food and drinking. The Alps are thus distinguished not only by a variety of natural landscapes but also by a large variety of cultural landscapes

In the 1970s, the anthropologists Eric Wolf and John Cole described

«hidden frontiers»[1], those invisible boundaries that have eluded the homologation of national states and which separate neighbouring Alpine valleys where the languages spoken, houses built and food consumed differ from one to the next. Villages in the Trentino region that speak a romance language, where houses are built in stone, one heaped upon another, lie just a few kilometres from German-speaking villages where houses are built separately in wood. Tret and St. Felix are two villages in the Upper Val di Non (Alta Val di Non) that have responded in a similar way to shared environmental imperatives, yet in which «the existing contrasts in the social and ideological sphere are striking at the same time»[2]. A close comparison of cultures reveals an unexpected complexity in Alpine societies.

Modernity and recognisability of landscapes

These varied worlds preserved a clearly recognisable identity until last century. Subsequently, industrialisation and above all the advent of the consumer society brought about transformations which we cannot ignore today. When new systems of production and invasions of tourists were imposed upon traditional cultures, it sparked processes of hybridisation which modified an age-old situation. The landscape, too, underwent profound changes: road, rail and hydroelectric infrastructure was superimposed upon the patterns of fields and pastures; sanatoria permanently associated mountain areas with the idea of health and rest, while the need for new hotel accommodation set urban architecture alongside rural, with new buildings and new visions which modified the landscape being superimposed on historic buildings.

Modernity has tended to cancel out differences between traditional cultures, to make them fit in with new models and plunging them into a profound crisis: it is a historical reality in which returns to the past or easy ways out cannot be found. This statement, nevertheless, does not exempt us from the responsibility of interpreting reality in order to establish the projects of tomorrow. In every context, modernity has brought about specific transformations, superimposing itself upon traditional landscapes. In most cases the new picture has not managed to erase the previous one completely, and it is still possible, against the light, to make out the pattern of traditional landscapes. Indeed, it may be said that in many cases this pattern has had a decisive influence on the transformations imposed

1   J. W. COLE, E. R. WOLF, *The Hidden Frontier: Ecology and Ethnicity in an Alpine Valley*, Academic Press, New York 1974.
2   *Ibidem*.

by modernity. It is necessary, therefore, to provide a new interpretation of reality, one which also takes into consideration the contradictions of history, in order to counter the threat of the permanent homogenisation of the Alpine environment.

«Protecting landscapes means keeping their recognisability alive»[3], Gion Antoni Caminada has written, quoting Lucius Burckhardt. Architecture always engages with a place, with a specific, context, with the peculiarities of a landscape. Edoardo Gellner said that an architect, before moving a stone in any place, should develop a profound knowledge of it:

> an architect cannot move immediately from one setting to another with an unchanged attitude and cultural assumptions. A piece of architecture […] is not an abstract thing, an aesthetic fact per se, which can be placed here or wherever, but is something that must grow in relation to its environment, with the physical forms of the place, since a history which modifies the structure of the area and its many relations forms part of the context as a whole.[4]

This statement is certainly the result of Gellner's cultural leanings, which were influenced by the work of Frank Lloyd Wright and the theories on organic architecture which were spread in Italy by Bruno Zevi after the Second World War. Gellner sought a balance between the built and natural environment, and was convinced that local examples of rural architecture were hives of precious teachings in this regard: a way of engaging with the landscape which nevertheless should not be confused with «misunderstood theories of empathy» and with «folkloristic mimicry»[5]: a lesson for the present could be drawn from tradition, and not models of already-given forms to be copied in a sterile fashion.

Today we cannot delude ourselves that thorough knowledge of traditional architecture can be a sufficient arsenal for the architect who is building in such a delicate setting as the mountain environment, or that this knowledge ensures designs which can achieve a balance between construction and nature. Nevertheless, a knowledge of the place remains one of the fundamental prerequisites of architectural design, from knowledge of its built heritage to the shape of planted fields, routes along the valleys and popular traditions, extending to the forms of the natural landscape and all of those elements which contribute in a positive way to the construction

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3   *Col zuffel e l'aura dado. Gion A. Caminada*, edited by B. Schlorhaufer, Quart Verlag, Lucerne 2005, p. 132.
4   Quoted in F. Achleitner, *Edoardo Gellner e un "paese di fondazione" nel Cadore*, in *Edoardo Gellner. Corte di Cadore*, Skira, Milan 2002, pp. 9-10.
5   *Ivi*, p. 10.

of the landscape. Such elements can perhaps be considered "pretexts" – as Bruno Reichlin has stressed – which architects used to anchor their projects. They are pretexts which in any case may help to keep the recognisability of a place alive and avoid the homogenisation of the modern world.

The mountain house

Reality can be interpreted from as the basis for architectural design, depending largely on individual sensibilities. Nevertheless, among the themes that can be investigated in order to know a landscape, that of the house plays a major role. For architects, the theme of the mountain home has become a key theoretical and imaginative issue.

In the twentieth century, geographers and historians were the first to turn their attention to rural and mountain homes: the former focused on the role of the home within the agricultural landscape, while the latter sought to grasp the meanings of the house as part of investigations into material culture and "minor" histories. Other scholars have concentrated their attention on other aspects still. To remain on the subject of the mountain dwelling, and specifically the Swiss mountain house, it is enough to note the differences in the approaches of Jakob Hunziker, Heinrich Brockmann-Jerosch and Richard Weiss[6]. The first was a linguist who by analysing the names assigned to the different parts of the house has developed an exemplary typological survey. The second was a botanist who transposed the evolutionary method from the natural sciences to studies on rural houses, identifying archetypes and primitive types. The third was a folklorist who adopted a functionalist approach in his studies of popular tradition, explaining the forms of the house in terms of environmental conditioning and reasons for use.

Each of these studies has its strengths and weaknesses, and each one is characterised by a single subject of study and by various interpretations of its meanings. Moreover, in these interpretations, it is possible to discern a number of cultural orientations which have also influenced architecture. In Hunziker's studies it is possible to make out an approach which – borrowing once again from Reichlin – I would define as "culturalist"[7], specifically because it focuses on language, customs and popular traditions. Yet the

6   J. Hunziker, *Das Schweizerhaus nach seinen landschaftlichen formen und seiner geschichtlichen Entwicklung,* Verlag H.R. Sauerländer, Aarau 1900-1913; H. Brockmann-Jerosch, *Schweizer Bauernhaus,* Hans Huber, Berne 1933; R. Weiss, *Häuser und Landschaften der Schweiz*, Eugen Rentsch, Erlenbach-Zürich 1959.

7   See B. Reichlin, *Die Moderne baut in den Bergen, Quando gli architetti moderni costruiscono in montagna* in C. Mayr Fingerle (ed.), *Neues Bauen in den Alpen,*

approach that has fascinated modern architects the most is undoubtedly the functionalist approach, at least from the 1920s onwards. Indeed, French geographers adopted such an approach well before Richard Weiss. And – as Aldo Rossi has pointed out – Le Corbusier's *machine à habiter* seems to share more than one similarity with the rural house, compared to a piece of farming machinery by Albert Demangeon[8].

For architects, the choice of the point of view often becomes the driving force behind design. Studies conducted by architects on mountain houses are almost always design-oriented, in other words aimed at drawing a lesson or an operational guideline from reality. Naturally, as for other scholars, interpretations may be different and focus on the most disparate aspects. Just as construction aspects may be more important for one, typological aspects may be more important for another and stylistic elements for others. Analysis of the different interpretations can become an opportunity for knowledge and exploration of traditional architecture, but may also provide a framework of references for the study of modern architectural styles and their relationships with tradition. It is therefore interesting to analyse the studies which, starting from the nineteenth century, a number of architects have developed on the subject of the rural house and mountain house.

Viollet-le-Duc and the chalet question

Eugène Emmanuel Viollet-le-Duc was a frequent visitor to the Alps, and the mountains appeared to him as gigantic medieval monuments, imposing constructions possessing an original perfection corroded by time[9]. An original perfection that may not even have ever existed. In his *Dictionnaire raisonné*, under the entry "Maison"[10], the mountain house is considered a medieval monument: its condition of isolation has saved it from "academic corruptions", and it is to it that we must look in order to rediscover those principles of truth and purity which will be needed to re-establish the discipline of architecture. The chalets of the Alps seem to be the last vestiges of a style that was widespread in medieval buildings, from

Architettura contemporanea alpina, Birkhäuser, Basel-Boston-Berlin 1996, pp. 89-90, no. 4 p. 128.

8   A. Rossi, *L'architettura della città*, Marsilio, Padua, 1966, 1970,[2] 1973,[3] Clup, Milan 1978, 1987;[2] new ed. CittàStudi, Milan 1995, p. 147.

9   E. E. Viollet-le-Duc, *Le massif du Mont-Blanc, étude sur sa constitution géodésique et géologique sur se transformations et sur l'état ancien et moderne de ses glaciers*, Librairie polytechnique, J. Baudry, Paris 1876.

10 E. E. Viollet-le-Duc, *Dictionnaire raisonné de l'architecture française du XI au XVI siècle*, vol. 6, B. Bauce – A. Morel, Paris 1857, pp. 214-300.

which the structural and construction features emerge strongly, unmasked by decorative elements. This reference in not meant to be an invitation to initiate a revival, but rather an attempt to rediscover in the past the founding principles for the houses of a modern nation.

In this way it may perhaps be possible to justify Viollet's paradoxical statement that the chalets of the Swiss mountains would seem to be «exactly the same as those on the slopes of the Himalayas and in the valleys of the Kashmir region»[11]. This statement is contained in an educational text for young people, *Histoire de l'habitation humaine*, and is necessarily anecdotal in nature. In the tale, primitive humans are helped by two supernatural figures – Epergos and Doxi – to build their own dwellings. The two figures oversee their progress, accompanying them on their migrations from India to Europe. This is why the Swiss chalets are the same as the Himalayan ones: not because they constitute a response to the same environmental conditions, but because they reawaken – thousands of years later – the memory of ancient migrations, as evidenced by the endurance of certain construction models. The anecdote reflects a belief that building cultures are extremely resistant and capable of surviving the centuries, and thus worthy of representing the identity of a people better than any other sign.

When Viollet-le-Duc build a chalet in Chamonix in 1872, he seemed to be guided by the same spirit. From a typological perspective, his *Chalet de la Cote* is a modern apartment house, on three floors and separate accommodation units, while the construction elements reference the Alpine tradition, with their combination of parts in stone and parts in wood. Viollet's attitude can thus be placed within that "culturalist" current to which I have referred above, while not excluding the improvements that progress may bring. Indeed, his attitude is not totally conservative, which would have prevented him from devising the revolutionary cast iron structures with which we are familiar. Yet looking at the house in Chamonix, we cannot fail notice – as Jacques Gubler has written – a veritable «manifesto of regionalist architecture»[12]. The chalet would become a children's sanatorium in the 1920s, until its demolition in 1977[13].

Chalet de la Cote should nevertheless not be confused with the fashion for the "Swiss chalet" which spread throughout Europe at the end of the nineteenth century. Jacques Gubler demonstrated – with reference to Hitchcock, among others – the British and German origin of the "Swiss

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11   E. E. Viollet-le-Duc, *Histoire de l'habitation humaine*, Berger-Levrault, Paris 1978, pp. 360-361.
12   J. Gubler, *Viollet-le-Duc et l'architecture rurale*, in *Viollet-le-Duc. Centenaire de la mort à Lausanne*, Musèe historique de l'Ancien-Evêché, Lausanne 1979, pp. 112-113.
13   C. Boymond Lasserre, *Deux anciens preventorium à Chamonix: le Miremont et les Soldanelles*, www.blogdesvireesculturelles.fr.

style"[14], while Jean Michel Leniaud and Michel Verne have highlighted the French roots of the chalet[15]. Whether the Swiss chalet was invented in London or Paris, the fact remains that it is a projection of the urban imagination onto the mountains, and not the product of a local native culture. The urban culture of the nineteenth century extrapolated from the mountains a number of reassuring images, using them for the picturesque little houses and cottages that adorned the gardens and parks of aristocratic residences. The most refined versions were soon set against those connected with the commonplace. After inspiring the birth of this model, mountain areas saw it return as a phenomenon. Echoing popular opinion and cliché, in fact, over the course of the twentieth century the Alps were invaded by bourgeois dwellings and hotels dressed up as little mountain houses, a fashion which continues to exercise its influences in the contemporary world.

Pagano and the battle for the flat roof

Another interesting figure is that of Giuseppe Pagano Pogatschnig. In many ways, Pagano's approach to the rural and mountain house can be compared with that of Viollet-le-Duc: he too sought in farmers' houses a primitive purity and structural clarity. The absence of decorative frills and the presumed functionality of the rural dwelling are further elements that attracted his attention. Yet the aspect which I wish to highlight is another: it seems that Pagano built his interpretation of rural architecture commencing from the image that he had formed for himself of modern architecture, and which he wished to legitimise at all costs with an antecedent. The pure buildings, the lack of decorations, the asymmetrical composition: these were all elements which he wished to incorporate into rural houses[16] and which coincide with a number of formal "precepts" of the new architecture. It is interesting to note, in this regard, how Pagano considered the terrace or flat roof the most advanced form of roofing in rural architecture. Pagano's arguments tend to make this form appear to be the result of a natural process of evolution, and in any case it is difficult not to discern their biased scope, aiming to disguise with the mask of reason a

14   J. Gubler, *Nationalisme et internationalisme dans l'architecture moderne de la Suisse,* Editions de l'Age d'Homme, Lausanne 1975.
15   J. M. Leniaud, *Le chalet suisse. Nostalgie d'un type primordial ou utopie constructive*, in «Bibliothèque de L'École des chartes», t. 63, 2005, pp. 203-204; M. Vernes, *Des alpages aux banlieues, le chalet innombrable*, in «Architecture intérieure Cree», n. 315, 2004, pp. 30-39.
16   G. Pagano, W. Daniel, *Architettura rurale italiana*, Quaderni della Triennale, Ulrico Hoepli, Milan 1936.

preference already conferred upon the flat roof from the outset.

Of the many issues raised by modern architecture in terms of construction, «none has stirred up so much passion as the flat or pitched roof issue»[17]. While functionalist architects justified this choice in terms of concrete, utilitarian reasons, Heinrich Tessenow pointed out that the preference accorded by the Modern Movement to the flat roof was due above all to the «wish to achieve the greatest possible degree of purity in architectural forms»[18]. Mies van der Rohe himself admitted that the battle for the flat roof was «actually … only an exterior battle»[19].

The flat roof slogan also had an influence on mountain architecture, particularly in the construction of the Alpine sanatoria. Rudolf Gaberel, one of the designers of the sanatoria in Davos, had made the battle for flat roofs one of the causes of his architecture. Gaberel considered fundamental what he defined as the «principle of snow conservation»[20]. Modernity had made the spaces below the roof heated and inhabited, whereas tradition dictated that they were cold and unoccupied. This led to the rapid melting of the layer of snow on the roof, particularly the lower layer, with the risk of it sliding off onto the ground and the formation of ice on the gutter. Snow could also constitute an effective insulation layer, and it was a good for it to be conserved on the roof for as long as possible.

The flat roof, however, is not the only solution to prevent the inconvenience of sliding snow. Already at the beginning of the twentieth century flat roofs were being built with the system of the double or cold roof, with a ventilated air cell located between the layer of tiles and the structure, preventing rapid melting of the snow. The pitched roof has continued to be an adequate solution for building in the mountains, and is not necessarily less efficient than a flat roof. The choice of one solution or the other should therefore be linked to figurative reasons as well.

Rural architecture and national identity

Besides functionality, there was another reason that spurred modern architects to consider the vernacular tradition. In the 1930s, the need to found modern architecture on an established tradition, which did not only follow international models, led several architects to seek points of reference

17   E. May, *Das flache Dach*, in «Das Neue Frankfurt», no. 7, 1927, p. 149.
18   H. Tessenow, *Das Dach*, in «Das Neue Frankfurt», no. 7, 1927, pp. 199-202.
19   L. Mies van der Rohe, *La battaglia per il tetto piano*, unpublished manuscript of 1927, translated from the Italian translation in V. Pizzigoni, *Gli scritti e le parole*, Einaudi, Turin 2010, p. 43.
20   E. Pöschel, *Das flache Dach in Davos*, in «Das Werk», April 1928.

within their own national borders. As these reference points could not be found in the monumentality of stately architecture, already the prerogative of the heavily criticised academies, the "alternative" source of the rural, popular tradition remained.

In 1930s Italy the issue was keenly felt, in large part because of the peculiar political climate. Indeed, one of the criticisms levelled at Italian Rationalism by its detractors was its presumed love of all things foreign. The search for a rootedness and an "italianness" was part of the missions that the rationalists set themselves in order to give legitimacy to the new architecture[21]. Giovanni Michelucci, for example, published a series of articles in «Domus» in which he attempted to individuate the «points of contact between ancient and modern architecture». He included references to the farmhouses of Tuscany, alongside a modern house in a drawing, with the purpose of «showing how "very new" forms, those which an uncritical public defines as Nordic, or "German", to be precise, actually have roots here, in our own clear, serene tradition»[22].

The questions of rootedness and identity are posed in different terms today: no longer framed by nationalist rhetoric but rather differences between local regions. The need to keep the recognisability of landscapes alive to which I referred at the beginning may perhaps rediscover important points of reference in the examples just cited. Indeed, modern Italian architecture of the 1930s and the immediate post-war period produced a number of works capable of reinterpreting local traditions, without closing themselves off from international innovations.

Pagano's Alpine architecture

The studies which Pagano developed on the subject of the rural house influenced his design work, in which he pursued the "operational" principle which I mentioned at the start. An example can be found in the holiday home which Pagano designed and built in the Alpine foothills in the Lombardy region, near Viggiù. This house, which dates to 1940 and was the last one built by Pagano, was described by the designer himself as «a modest little house». The principles of ordinariness and simplicity predominate in it, almost as if to confirm the definition that the designer had conferred upon

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21   See M. Sabatino, *Pride of Modesty. Modernist Architecture and the Vernacular tradition in Italy*, Toronto 2011; J. F. Lejeune, M. Sabatino (edited by), *Modern Architecture and the Mediterranean. Vernacular Dialogues and Contested Identities,* Routledge, London 2010.

22   G. Michelucci, *Fonti della moderna architettura italiana,* in «Domus», n. 56, 1932, pp. 460-461.

the rural house as unpretentious architecture, «filled with modest, anonymous beauty», which takes its place within the landscape naturally. The little house consists of a number of simple forms in wood with a framed structure mounted on a concrete base. The outer walls are "buffered" with wooden beads arranged vertically. Two wall sections in stone help to brace the structure and anchor it to the ground. The windows are arranged freely along the walls and the structure is covered by a single, slightly sloping roof. The decision to use a single pitched roof appears to be a compromise between a flat roof and a pitched rood, and is in any case a type of roof that is widely used by modern architecture in the mountains, beginning with Franz Baumann's Hotel Monte Pana, through to the villas built after the Second World by his friend and partner, Gino Levi-Montalcini.

Indeed, it was together with Levi-Montalcini that he had designed Villa Colli in Rivara, in the Canavese area, in 1929. This other villa consists of a simple walled form covered by a hipped roof, with the first floor surrounded by an uninterrupted portico. The materials used are simple and traditional, with plastered walls, a slate roof, parapets and pillars of the portico in wood.

Yet Villa Colli also exhibits clear references to the international culture and modern architecture which were gaining notoriety in Italy too. Specifically, in the section above ground and in its relation to the garden a reference is found to Winslow House by Frank Lloyd Wright, build in the Chicago countryside at the end of the nineteenth century. The interior, in contrast, displays certain Viennese features, drawing in particular on 1920s architecture by Adolf Loos.

Villa Colli's rustic face is in contrast linked to a revival of elements from the local tradition, presaging precisely those themes which Pagano would tackle some years later in his examination of the rustic house[23]. The continuous portico of the first floor, from up close, recalls the large openings of the haylofts and balconies for drying in the farms of the Canavese area. In the porticos of the rural houses in the Alps it was possible to admire the contrasts between the heaviness of stone and the lightness of the trellises in wood, between the fullness of the basement and the opening of the haylofts: the roofs of these buildings, supported by slender pillars, seemed almost to float in the sky. In the same way, the roof of Villa Colli seems to lift off of the floor below, achieving the same effect that Wright had obtained by including a dark band in the decoration of the top floor of his Winslow House. For modern architects building in the mountains, local tradition becomes a new figurative point of reference, to sit alongside those

23   E. Levi-Montalcini, *Gino Levi-Montalcini architetto a Torino*, in «Atti e Rassegna Tecnica della Società degli Ingegneri e degli Architetti in Torino», n. 2, 2003, pp. 16-18.

originating from the international culture.

The two examples in question are extremely different from each other: Villa Colli draws on figurative elements of rural architecture and international modernity, placing them within a classical typological conceptual framework; the house of Viggiù takes a further step forward, abandoning all classical compositional schemes and rescuing from rural architecture the typical juxtaposition between buildings, disregarding rules pertaining to hierarchy and symmetry. In both of the examples we find clear references to the rural tradition, to such an extent that these two houses seem to be transformations of the rural houses photographed by Pagano. A transformation which not only involves elements and references drawn from tradition but also elements of international modernity.

Transforming tradition

It is precisely to this theme of transformation that I would connect a number of observations made by Friedrich Achleitner in the context of one of the Sesto Val Pusteria Alpine architecture awards. Speaking of Casa Khuner by Adolf Loos in Payerbach, he points out the Viennese architect's respect for place, which is expressed in his use of local materials and construction techniques. However, these points of reference are reduced to a sort of «matrix, a shorthand sign reduced to a small number of notable features, and then through a purifying hail of radical transformations, turning them into a modern example of an urbane, upper middle class country house»[24].

In the same way, completing the picture painted by this brief essay, which began with Usellini's encaustic paintings, I feel that I am able to detect a similar attitude also in Giovanni Muzio who designed the Sondrio Provincial Authority building. In the pre-project phase, he made a "journey to the Valtellina", gathering information on and sketches of monuments, traditional handicraft production and materials used for local construction. The figures collected a sort of canvas upon which the project would be written. The building features stone classing which recall the dry stone walls of the Valtellinese tradition, alongside portals, coffered ceilings and iron grilles drawn from the noble palaces of Teglio and Tirano. All of these elements, through a "purifying hail", are transformed into a metaphysical architecture inevitably marked by Muzio's style.

In conclusion, it can be said that knowledge remains a fundamental

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24   F. Achleitner, *Architettura alpina. Prima e dopo Edoardo Gellner*, in C. Mayr Fingerle (edited by), *Neues Bauen in den Alpen, Architettura contemporanea alpina: Premio d'architettura 1999,* Birkhäuser, Basel-Boston-Berlin, 2000.

prerequisite for establishing contemporary architectural design, and the essential remains that of conserving the recognisability of Alpine landscapes. Nevertheless, knowledge of the place appears not to be enough.

If we were to repeat the "journey to the Valtellina" embarked upon by Muzio in the 1930s, so well represented in by Usellini in his hot wax paintings, we would find the situation completely transformed and a Valtellina that is completely unrecognisable. The reasons are complex and cannot be analysed in a few lines. However, mention may at least be made of the failures in planning which have always witnessed concertation between public and private interests and which have not prevented the spillover of private interests. The public interest, in other words protection of the landscape, has sought a lifeline in building restrictions and regulations, which have proven totally ineffective.

Architecture, in the face of all of this, has seemed and continues to seem powerless. Yet faced with a disastrous situation, one may perhaps attempt to build a new image of the landscape through ideas, as has often happened in the cities, where, in various historical periods, large-scale planning has been counteracted by a number of architectural ideas that have modified the overall image of the city, such as in the case of Vrin with the work of Caminada and potentially in other contexts. It is necessary, therefore, to continue to foster ideas, and to continue to analyse and spread good examples of architecture. An incentive, in short, to continue to study, think and design.

On page 18
Fig. 1. Multiple arch dam in Val Venina

Fig. 2. Gianfilippo Usellini, *Encaustic paintings in the Hall of Honour at the Palace of the Province of Sondrio*, 1934

Figg. 3-4. Stone house in Val di Rezzalo. Before and after renovation

On the next page
Fig. 5. A 14th century wooden house in Nantua. Source: E. Viollet-le-Duc, *Dictionnaire raisonné de l'architecture française du XI au XVI siècle*, Paris 1894, tome sixième, p. 258
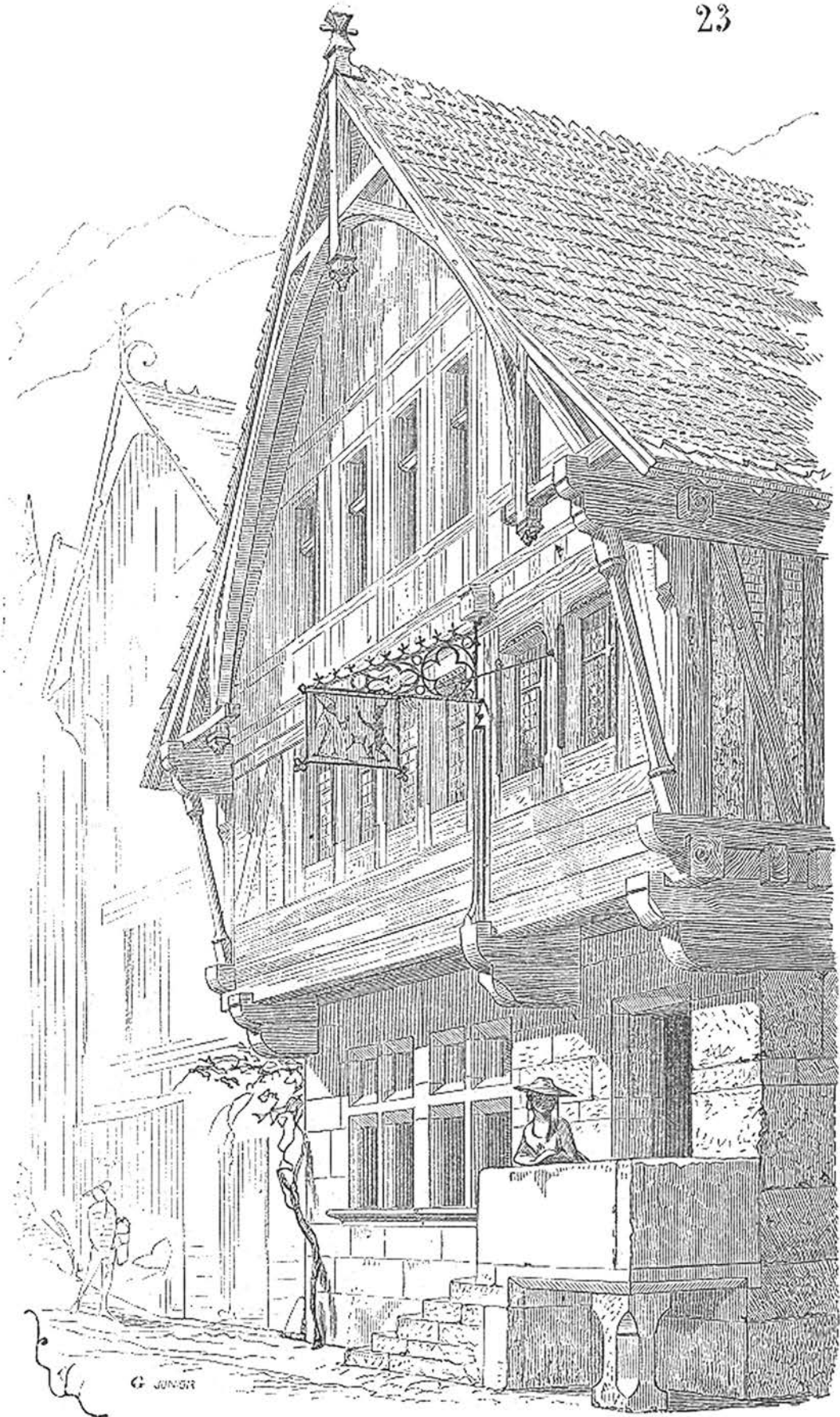
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Fig. 6. Rural House. Rivara Canavese

Fig. 7. Giuseppe Pagano, Gino Levi-Montalcini, *Villa Colli*, Rivara Canavese, 1929-1931

Modern design and mountains.
A tense relationship

Panos Mantziaras

Among those small jewels of modern architecture which have remained outside the "mainstream" of historiography we can certainly include the Mont Salève cable car station, overlooking the west end of the Léman lake twenty kilometres south of Geneva. Designed by the Swiss architect Maurice Braillard and built in 1932, this elegant vertical volume, which rests on slender, but sturdy T-section pillars in reinforced concrete, has become an icon of mountain architecture worldwide.

The station's compositional syntax combines elements of both Sant'Elia's dynamics, and Mendelsohn's expressionism, with a nod also in the direction of the "streamlined" *Motor car no. 8* by Norman Bel Geddes, which appeared during the same year. The early International Style was echoed in its eloquent shape but also in the program including the cable car platform itself, a luxury restaurant at the top above, which never got into use and a hotel that was never built. This led to a serious volumetric lack at the back of the cable car facility, which should have guaranteed its "anchoring" to the slope. Not to mention the demolition of a seemingly fragile external staircase at the foot of the Salève which invited the visitors to start their ascend even before entering the cabin, in a kind of minimal and powerful *mise-en-scene*, almost an abstraction of the concept of mountain.

Through the photographs of the site during construction, with the Mont Blanc in the background, Salève's cable car station appears as a "pre-Alpine" piece of architecture, an expression of the Genevois' desire to escape from the city, of their longing to live their free and modern age by contemplating the landscape, capturing a symbolic relationship with the Alps.

Incompleteness has left this building with a certain vulnerability, both formal and programmatic, still awaiting for the restitution of its formal integrity, and therefore the restoration of its asset value, particularly after the disrespectful works carried out during the sixties.

The initial project had integrated the cables going through the two reinforced concrete columns in T-section, thus creating a kind of building-machine hybrid. Unfortunately, due to reinforced security regulations, these cables had to be strengthened and distanced. They were placed outside the columns' ducts, thus cancelling the building's characteristic designed to fulfil an architectural, structural and functional role. Even the last floor, which was destined to be the restaurant, has been disfigured, wrapped as it is in a corrugated steel sheet conceiling regional telecom installations.

It now seems difficult to return to the original state in order to regain and safeguard the cable car's special features. In terms of heritage the station has become a "dead asset", although it works perfectly as a tourist infrastructure, offering Geneva a closer relationship with the Alps. In fact, in order to have a direct glimpse of the mountains from Geneva you have to climb very high, and the citizens had, and still have, the need to be linked to their mountains, especially in light of their on-going Swiss-Alpine identity search (although the building stands beyond the French border...).

Here lies, perhaps, the key to a new conceptualisation. Returning Salève's cable car station to its role as a symbolic mediator: the metropolis of Geneva and the alpine mountain are two entities which only find their meaning when they are placed in relation with each other, and in this case, the station could be the building which symmetrically unites them.

Metropolitan construction in the Alps

In modern times, the ambiguous relationship between artifice and nature went through different periods and scales. Modernity attempted to cancel Nature on the one hand, while trying desperately to find a symbolic affinity with it on the other. Mountain nature is no exception. The Modern Man definitely sought a certain relationship with the peaks, not only at the scale of the edifice but also at the urban scale.

Cities such as Zurich, Salzburg, Milan or Turin have celebrated their direct visual relationship with the Alps (Grenoble being the only town virtually enveloped by the massifs). This geographic and topographic "amphitheatre-shaped" disposition gives the Alps the allure of a metropolitan park – a sort of Central Park with the sublime for a bonus.

Thanks to the urban culture, the Alps no longer remain exterior to the urban life, technology, speed and contemporary social relations. They're at

the very centre of the late modernity, a feature we'll revisit later in this text.

Indeed, they form a centre struggling to regain its integrity, while gradually colonised by a series of "architectural gadgets" which, due to an incredible misapprehension, considered the Alps as an "outside". In some ways this reminds of the Dutch Randstad's fate, where the efforts to preserve an unbuilt heart failed to prevent the sprawl of settlements and infrastructures.

Certainly these two cases can only be partially compared, because the Alps are probably strong enough to resist the fatal embrace of modernity. Probably, but not certainly...

The Alpine heritage has become a collective mo(nu)ment since the fifties. Initially belonging to the local Alpine populations, the conquest and the experience of citizens' spare time created a fairly extensive mass consciousness, which exceeded any geographical boundaries, finally creating a modern colloquial identity.

Let us remember that the relationship of the masses with the Alps in fact began with literature. Arthur Conan Doyle decides to set the murder of Sherlock Holmes, by his eternal enemy Professor Moriarty, in the Reichenbach Falls in the Oberhasli Valley: *The Final Problem* was written in 1891 and printed in 1893.

But where Doyle considered the Alpine wilderness as a Wagnerian opera set for the good to face the evil in a final late-Romantic *chef-d'oeuvre*, Ian Fleming, sixty years later, offered them as a Technicolor backdrop for the adventures of Bond, James Bond! Filmmaking draws a pop imagery from the Alps, transforming them first into a cosmopolitan object of desire and then into an object of mere consumption.

We are still going through the same late-consumerist phase today, but this attitude has been criticised in some artistic examples. In Shohei Imamura's film *The Ballad of Narayama* that won the "Palme d'Or" in Cannes in 1983, an ageold Law in the village of Shinshu (in 1860) obliges people who reach the age of seventy to climb to the top of Narayama, a mountain where they have to wait for their own death. After having made arrangements for her children, old mother Orin leaves the village on the shoulders of her eldest son for Narayama. On reaching the strewn with human bones place, the old lady waits for her moment with a memorable dignity. Fortunately, snow starts falling thus covering the bones of the dead. What remains visible is the mountain, vaguely shaped like a pyramidal rock, symbol of the mountain itself and a protective element, like a scarf on Orin's shoulders.

The Ballad of Narayama therefore articulates in other terms the relationship between the plain, where life unfolds in its abundance, and the summit where life is absent and where it should end. Up on top is where lies the transcendent value of things too big (and maybe too terrifying) to exist in the humans' everyday life. We are outside Life's immanence; we are in the

domain of great ideals.

That's how the dark shoulders of the *Wanderer above the Sea of Fog* find their essence, contrasting against the light and foggy background of Caspar David Friedrich's painting, created in 1818. Of course, the mountains in the background are the Saxon Elbsandsteingebirge. But the theme is the same, that of man contemplating his future in solitude. It is the same modern man that Antony Gormley places in the Vorarlberg mountains between 2010 and 2012: *Horizon Field* is a series of identical figures placed on an area of about 150 sq. km at 2039 m of altitude.

Both Friedrich and Gormley give the relationship between the Modern Man and the mountain the qualities of solitude, serenity and introspection facing the future, thus revealing the Modern Project's internal contradiction. In the case of the *Wanderer*, we could also add an impression of the vague desire to become escape society, to remain without cultural and collective references, to stay away from men, albeit clearly maintaining a metaphysical framework.

In a sense, these two works related to the mountain define one of the two complementary poles of modernity. The opposite pole is the one we might find in the *School of Athens* by Raphael. The antithesis is total: here we are in an enclosed artificial space; there are human figures converging together and facing the viewer; there is noise and exchange of words and ideas. Plato points up vertically towards the sky with his arm and finger, while Aristotle with his palm facing down refers to the earth. Their dialogue gives birth to theories and interpretations of the world. There is a sense of security suggested by this thought transformed into *logos*, the security of life within society. Certainly, the figures represented by Raphael are philosophers; but they are also citizens of Athens. It is indeed rather rare to have Raphael exalting not God but men and the things of men, the *res pubblica*.

From a programmatic point of view, the *Wanderer* and the *School of Athens* depict the almost perfect antithesis: on one hand, the mountain, the space of individuality and transcendence; on the other, the city, the space of community and immanence.

Where does this little-explored dialectics lead us?

A short essay on the Alps written by Georg Simmel might perhaps give us a hint. Written during the first decade of the twentieth century, it points to the snowy summits as…

> …a totally anti-historical landscape. Here, where neither summer nor winter change their image, all the links which man builds for himself, those

relationships which, to a certain extent, create other landscapes, simply disappear.

This anti-historical feature is in opposition to that of the sea…

…symbol of the continuous agitation of human destiny […] the sea is intimately linked to the fate and developments of our species: it has demonstrated a thousand times it is not a border, but a communication route between countries. Mountains on the contrary, depending on their height, have had an essentially negative effect throughout human history, isolating life from life and hindering reciprocal impulses, just as the sea favoured them.

Absurdly, one might as well imagine the Alpine massifs disappear in order to allow for more ample route communications between the large metropolitan areas surrounding them. After all, the twentieth century's modern project for the Alps was precisely this: to create an abstraction of all Alpine realities, to get rid of the Alps as an (anti) historical subject and to replace them with the largest "Amusement-Ski-Park" in the world. In this, the antithesis between the *Wanderer* and the *School of Athens* might help us. In fact, modern times never dared, or were not able to politically transform the mountain into an urban space, into a *res pubblica*.

Simmel also, with the help of the sea vs. mountain opposition, highlights the significance of some central anthropological categories. «The sea operates through empathy with life, the Alps through abstraction from life», he writes. No wonder then that the BBPR's project for Aosta, in the framework of the Masterplan for the Valle d'Aosta in 1937, so thoroughly incorporated the aesthetics of this abstraction.

Modernity had perfectly understood the Alps' abstractive force, but she made a historic mistake: she filled their *Gestalt* with the programmatic content of leisure, transforming them into a reality at the service of free time. They have become a huge infrastructure, a *non-lieu* too huge for Marc Augé to discern.

Is it possible to talk about an historical error in terms of the philosophy of history? Probably not, but we know all too well those moments of our "short" twentieth century history that should have better not existed... It was then an inevitable mistake, but one which led to the Alpine world becoming merely utilitarian.

So, the Alps have been a leisure background of the metropolitan masses over the past sixty years. We are only now just coming out of that period. The big challenge will be to head towards another mental construction, one that will consider the Alps as an architecture in its own right, hopefully restoring a portion of its transcendental and symbolic immateriality. Our

task should no longer be to make architecture on the Alps, but to understand, through our buildings, that the Alps are already an architecture, that they are a complex dynamic structure, and that, more than anything else, this consists in keeping their mechanisms intact.

The Alps are an ecological regulator at the continental scale. Therefore their architecture and constructions should only be pieces of their complex mechanism, without any doubt of strategic importance for its proper functioning. As a result, the local population should no longer be the *receptionists* of a huge ski resort, but the experienced custodians of an invaluable eco-systemic bequest.

The preservation of this heritage, both at the scale of the Salève cable car station, and at the scale of the Alps, makes undoubtfully sense today.In the era of the Anthropocene, we ought to constitute through architecture, planning and the landscape the *knowledge* and the *know-how* of the Alps' survival and of that of Europe. But this is not a technical, technological or technocratic endeavour. It is essentially a political project.

On page 36
Fig. 1. The Mont Salève Cable Car, period style advertising poster

Fig. 2. Drawing by Yuko Shimizu© front cover for the DVD edition of the movie
The ballad of Narayama / 楢山節孝, 1958, directed by Keisuke Kinoshita

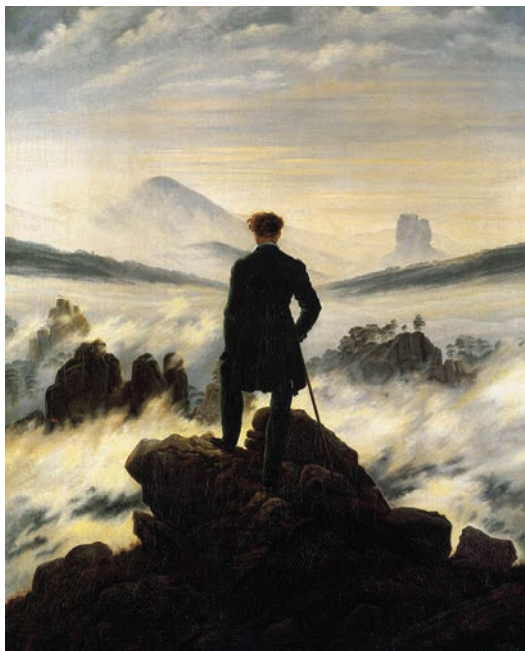Fig. 3. Maurice Braillard, *Mont Salève cable car*, 1932, vintage postcard

Fig. 4. Caspar David Friedrich, *Wanderer above the Sea of Fog*, 1818

Fig. 5. Raffaello Sanzio, *School of Athens*, 1509-1511

Fig. 6. Antony Gormley, *Horizon Field*, Vorarlberg, 2010-2012

The relationship with history in Alpine architecture

Conradin Clavuot

What do we need to do to survive as architects? First of all, we need to be interested in life, discovery and refinement, and allow ourselves to be amazed at the complexity of changes in life. We need to have the ability to let ourselves be fascinated and develop an interest in our own creativity, be fascinated by how humans react to the stimuli of the world. It is important, therefore, to dig deep into the positive meaning of things, while acknowledging one's own perfections, in order to keep the stimulus improving.

Do you know the smell of plants which are dying? Do you know the warmth of the winds as they ascend the rocks? Do you know the ancient houses made out of timber, with rugged black trunks like grandmothers' faces? We need to use our imagination to conjure up a fairy tale, and have the ability to tell it. But we must also honour and acknowledge the precious work of our mothers and of our fathers, otherwise in the future our work will be lost too. It is fundamental to start from history and from the past, or else we will be condemned to an eternal "new start". In this sense, I believe in a vision which takes its cue from history while at the same time constantly adding new knowledge, new interests and new fascinations.

In architecture, there are four fundamental criteria to respect. First of all, it has to respond to concrete requirements, through function. Secondly, it must respond through reason, culture, tradition and religion. Thirdly, it has to explore the place, its topography and the land. Finally, it must work with emotional sensibility. These four founding principles must be explored and hierarchized, seeking architectural responses, in an interweaving of context and concept.

Yet what is the value of the Alpine cultural landscape? What is the meaning

of history in relation to the contemporary project? Visiting the Tyrol region – and probably all Alpine regions – it is possible to see many examples of contemporary architecture born out of constructivism and the essentiality of modernism, from the possibilities introduced by the technique and rhetoric of the new. In addition, only in recent decades, many examples of past architecture have been destroyed: bourgeois houses, ancient village centres, walls in stone, streets, etc. How is it possible that interventions on the landscape which are unsuitable and completely disproportional is scale are continually repeated?

Architects or engineers, or designers in general, wish to put themselves proudly on show at all costs. This "constructed violence", in many cases, is not justified. It is the manifestation of the fact that designers, politicians or clients only focus on a particular problem, without adopting a heuristic approach. One wonders, therefore, whether the legacy of the century that has just passed is positive or negative. Our parents decided to give up discovering their world, not choosing to find appropriate solutions for their time. They distorted the specific nature of the places in which they lived, in the name of a supposedly international approach.

In actual fact, it is precisely the peculiarities of a place that make the world more interesting. It is precisely the differences in ideas, in the climate and in the context that offer mankind cues for learning, understanding and designing. The Alpine world is characterised by specific climate conditions and by sharp environmental and spatial contrasts: heat and cold, the changing seasons, the winds, the silence, the towns and cities, solitude. Human culture was born as a technical development commencing with nature. These elements form the background of our work, exhibiting themselves in our designs with unquestionable clarity.

It is here that we need to be radical. All of the influences that do not come from the Alpine area should be included in the design only in a subordinate manner. Our ancestors had to understand how environmental conditions should be interpreted, and they had to adapt their own personal limits to them. Today we stand in a privileged position, inasmuch as we can take the intelligent things of our ancestors on board and re-examine them in the light of contemporary innovation.

But what is history, and how is it treated in architecture? In the popular tradition, the meaning of storytelling lies in its retreading something that has already happened. History tells us what happened in the past, traces of what we have not been able to experience ourselves, traces that have been passed down to us or which are recognisable in a particular way. In his book *Invisible Cities*, Italo Calvino describes the city of Zaira thus:

> A description of Zaira today would have to contain all of Zaira's past, but the city doesn't tell its past, it contains it like the lines of a hand, written among the edges of the streets, in the window grills, in the handrails, in the lightning conductors, in the flagpoles, each segment scored in turn by scratches, serrations, carvings. History is found in every thing, in every moment, in every movement and in every memory.[1]

It is very difficult to reconstruct history: it changes and is renewed without interruption. It is not possible to break it down into pieces, because everything becomes right or wrong at the same moment. There is no absolute meaning and there is not one historian who can have the truth in his or her pocket, as life is short and the human brain limited, and it is not possible to be aware of the unending complexity of the things that follow one another in every second. History is therefore incommensurable continuity. Everything evolves from the past and, as long as it is possible to invent the new, we must accept history, both good and bad: we work with the past, with the present and with the future.

What place does my work as architect have in the cultural landscape and in history? I have been working as an architect for 25 years and I have worked on only one project outside the Canton Graubünden. Why should we wander from country to faraway country when we are perfectly adequate for the place in which we were born? Here we know the people, the language, the culture; here lie our roots.

See, for example, the School of Sankt Peter (Arosa): the new building is integrated into the village's ancient traditions of settlement and architecture, in order to incorporate the design into an urban structure which has grown over time. In this project I sought to connect what is good about the past with today's technical requirements and possibilities, in terms of insulation, lighting, structure and so on. In other words, I tried to preserve the values of the past while adding some new ones as demanded by the modern world. The Sankt Peter project is a modest building which seeks to convey the essence of wood as a building material. Together with the engineer, I decided to construct a part of the building in a particular way, highlighting the ways in which the wood was worked and treated.

The Wieland house project in Felsberg (Chur) tells an apparently trivial, anonymous story made up of abandoned objects and everyday gestures. I sought to make the user aware of what is unflashy and unfleeting, in order to explain that each little detail is part of history. The building in question is an old stable which was destroyed to be rebuilt as a residence in the same position. I sought to bring its inhabitants closer to the surroundings,

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1　Translated from I. Calvino, *Le città invisibili*, Einaudi, Torino 1972

which is why all of the windows are different and establish a different relationship between interior and exterior. In this manner, the windows became binoculars, while a boulder that had fallen from the mountain above became the fulcrum for the space around it.

The Raselli house project is in Poschiavo, a rather remote Swiss valley close to the Valtellina. The house lies in an isolated spot outside the village, thus with no pre-existing structures. As no relationship could be established with structures that had already been built, the project took shape beginning with a "democratic" division of space set out on a grid. Initially we tried all possible strategies for the construction of a house of this kind: starting from an isolated wall or, as the modernists used to do, developing a building type starting from an abstract object, or using a generally valid typology or a geometry, a minimal sign, or even a completely functionalist building. However, all of these strategies proved unsuitable. A house was thus conceived by analogy with man, a sort of "ideal man of the valley". The client is a slightly stocky man with thickset legs, the Tramontana wind has swept away his hair and he wears simple clothes that have been adapted to the climate. His wife, on the other hand, introduces new ideas, she brings beauty and *joie de vivre*, her shell is hard and strong, her soul like an untidied attic, adventurous, ready for new discoveries but with a homely sophistication and perfection. Thus a house was designed in which the exposed brickwork of the walls is punctuated by a number of beams in reinforced concrete, while the rest is all in wood, and was conceived as a single, large piece of furniture which meets every requirement.

Chur Station, by contrast, is a highly structured piece of architecture, which has lain dormant during a history on which architects from different generations have worked. It is now protected. With this project I sought to place myself in a relationship of continuity with this history, not in the sense of a contrast between the old and the new, but as a weaving together, as a play on the hierarchies with which resemblance is shot through. The distinction between old and new is a product of western culture. It espouses the idea that in past times everything was better and everything should be protected. We chose to avoid categorisations by blurring limits and working in a contemporary vein on the ancient. For the expansion of Chur Station, we began with the work or our predecessors and paid homage to them. The hierarchy of the older building was mirrored and respected by working in the same way as those who built before us: up a bit, down a bit, in a bit, out a bit, continuing with these rhythms both outside and insider.

Architecture is good for the human soul. The important thing is to start to learn and to feel again: the vision that we should pursue is one which grasps and includes the different qualities of life, and works on them in a positive, creative way.

Figg. 2-3. *Wieland House* in Felsberg, Grisons, 2000. Photo by Ralph Feiner ©

On page 46
Fig. 1. *Wieland House* in Felsberg, Grisons, 2000. Photo by Ralph Feiner ©
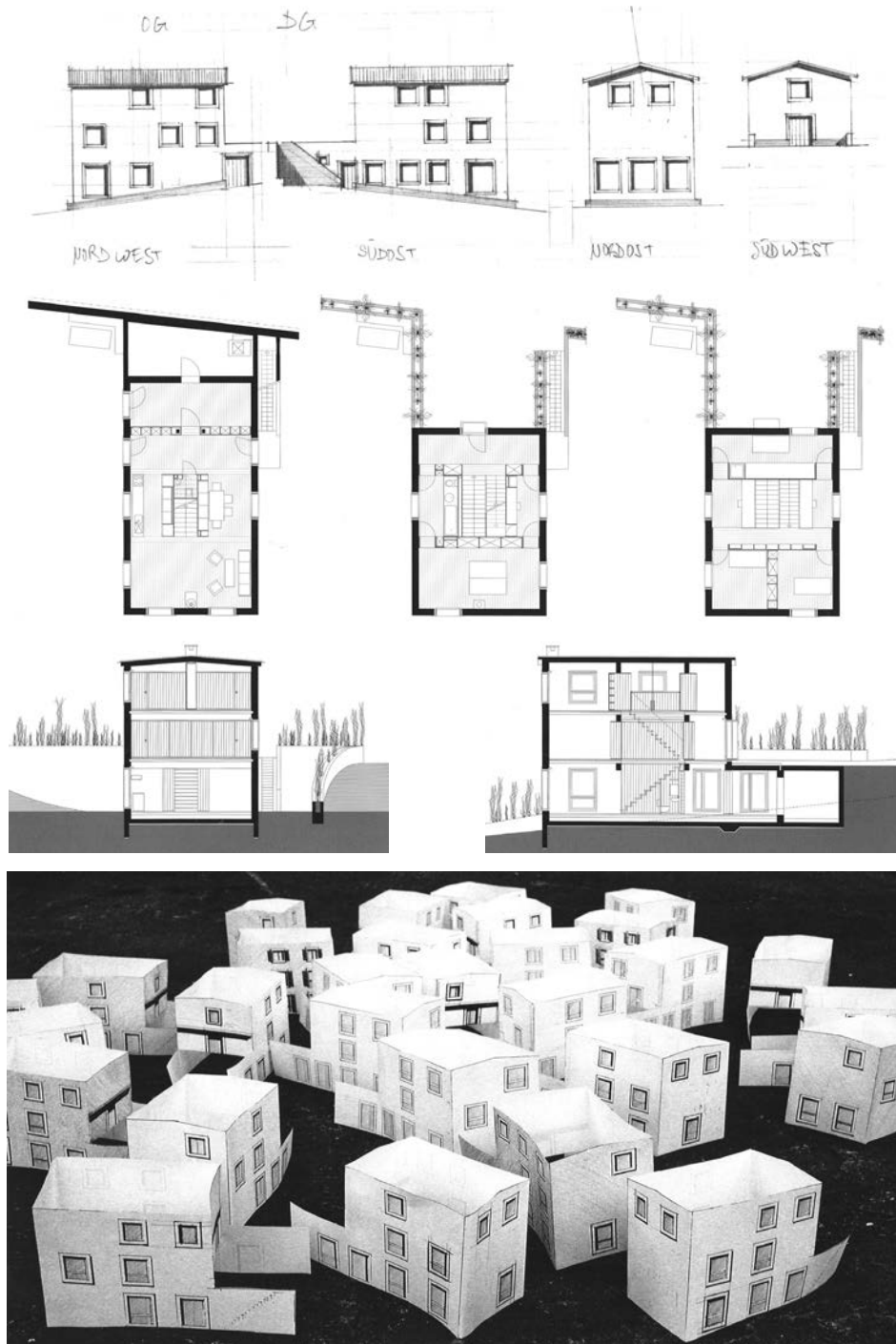
Figg. 4-5-6. *Raselli House* in Poschiavo, Grisons, 2001-2002. Sketches, layout plans, cross and longitudinal sections, maquette

Fig. 7. *Raselli House* in Poschiavo, Grisons, 2001-2002. Photo by Ralph Feiner ©

Fig. 8. *Raselli House* in Poschiavo, Grisons, 2001-2002. Photo by Ralph Feiner ©
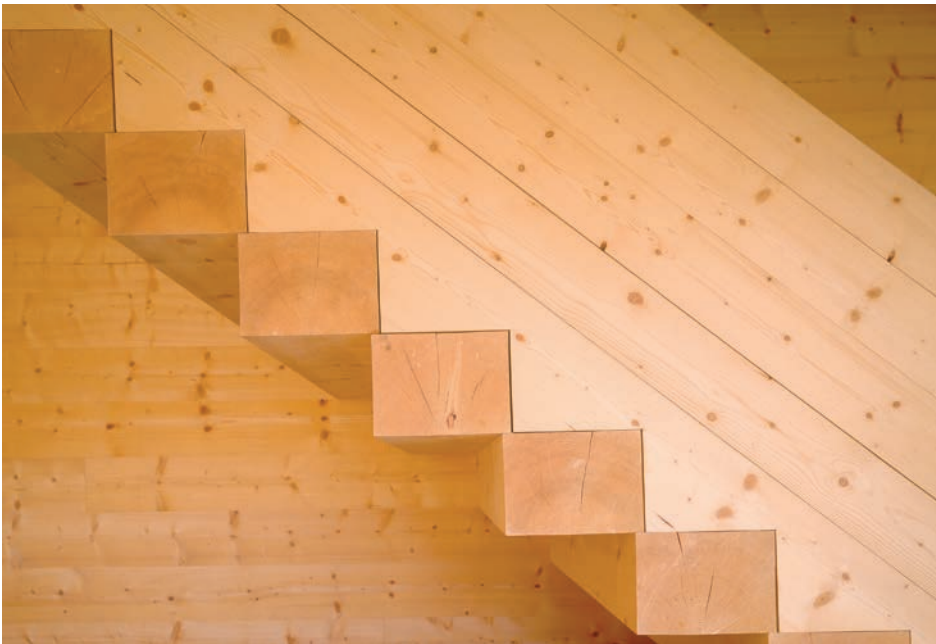

Fig. 9. *School and multifuntional hall,* Sankt Peter, Grisons, 1998. Detail of the staircase. Photo by Ralph Feiner ©

Fig. 10. *School and multifuntional hall*, Sankt Peter, Grisons, 1998.
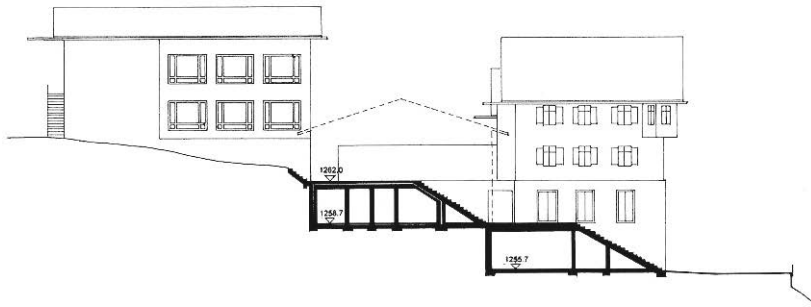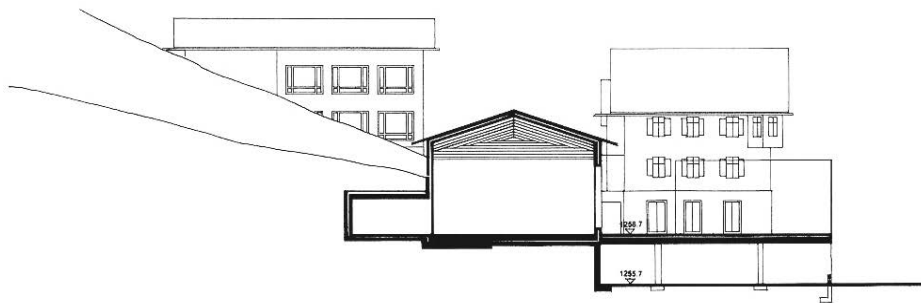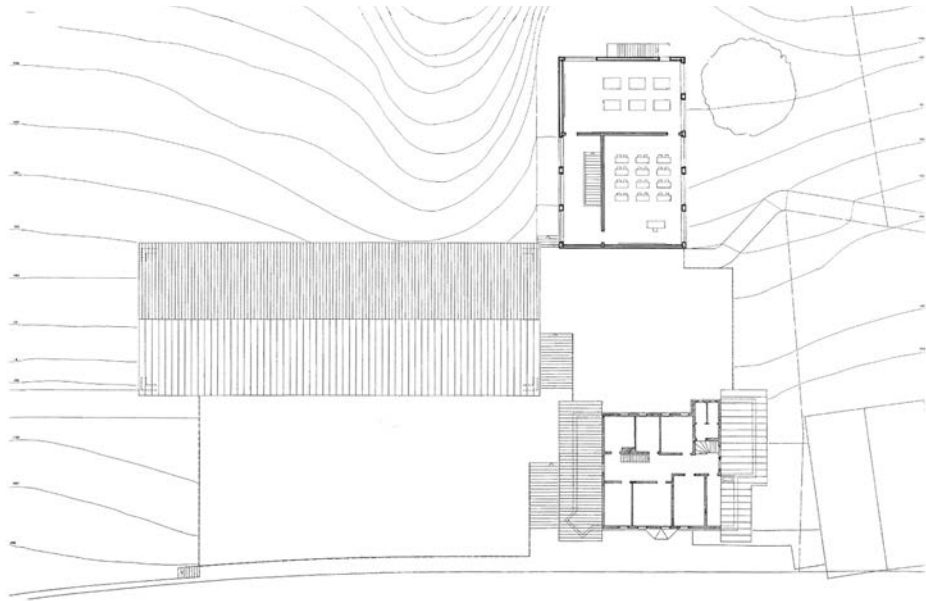Photo by Ralph Feiner ©

Fig. 11. *School and multifuntional hall*, Sankt Peter, Grisons, 1998.
Plan and cross sections

Fig. 12. *School and multifuntional hall*, Sankt Peter, Grisons, 1998, upstream view. Photo by Ralph Feiner ©

Fig. 13. *School and multifuntional hall*, Sankt Peter, Grisons, 1998. Photo by Ralph Feiner ©

The experience of the Val Bregaglia
Armando Ruinelli

The Wakker Prize has been awarded by the *Heimatschutz Svizzera* (Swiss Heritage Society) since 1972 in recognition of outstanding work by Swiss municipalities in landscape protection and conservation. In recent years, however, the *Heimatschutz*'s focus with regard to monuments has changed together with that of the superintendency, adapting to changed times. Indeed, while the prize used to be awarded exclusively to municipalities that had taken steps to maintain, conserve or restore existing artefacts, today the prize takes into consideration municipalities which, in addition to conservation work, concern themselves with new projects. In this regard, a number of prizes have been awarded to the Ouest Lausannois district and the Aarau – in other words, to cities, and not just perfectly preserved villages, such as Guarda. The Wakker Prize has therefore become a coveted prize at the national level which rewards the efforts made by municipalities to safeguard appearance and foster architectural culture. In 2015 the Wakker Prize was awarded to the municipality of Bregaglia, which came into being in 2010 with the merger of the five municipalities of the Swiss Val Bregaglia. And it is perhaps preferable that the prize was awarded to the entire Bregaglia district and not just to a perfectly preserved village such as Soglio, specifically with a view to promoting contemporary transformation projects, which are essential to maintaining the landscape and things. Representative projects in this regard include Miller&Maranta's project for the "Roccolo", built alongside Villa Garbald, Castasegna, designed by Gottfried Semper in 1861, or the Pfister brothers' project in Löbbia, in front of the Maloja Pass, for the "Forze Idriche" Society.

Our firm, Ruinelli Associati SIA, operates in the in the context of the Val

Bregaglia. Here we present three of our projects. The first is in Soglio and is perhaps our firm's best known. It concerns the redevelopment of a stable into a residential building. For the transformation, one possible and interesting method is to insert a box inside the stable: a new element, which may be in steel, glass or wood, where the new and the pre-existing can be distinguished. In this project, however, we have chosen another approach, as we were interested in the theme of "building in continuity with the existing"; in imaging, that is, the ways in which the farmer would act if he wished to turn his stable into a home.

The materials through which the project takes shape have been reduced to three: wood, tamped concrete and steel, according to a principle of "reduction", which is a theme on which our firm works frequently. The new concrete wall has been conceived as a continuation of the pre-existing yet at the same time as a signal of project's contemporaneity. It is made with tamped concrete without steel, cast in situ in layers, as if it were a brick, yet with a super-fine grain size of up to 16 millimetres, not vibrated but compacted and beaten with a wooden pole, recalling an "archaic" way of working, yet at the same time is also a way of emphasising the building's layered aspect. The theme of "layering" or "stratification" brings to mind the image of artificial Alpine lakes, in which changes in the amount of water contained in the basin leaves their mark on their shores, in which three layers can be made out; a dry layer, a transitional layer and finally the cloudy, murky layer of the water.

This project has been most interesting both for the designers and the craftsmen, who have had the opportunity to show their skills and abilities. The formwork used was extremely complex: to avoid the use of cords it was necessary to reinforce the fixing and supporting structure, to counter the pressure of the casting. In order to obtain a relatively low concrete pressure it was necessary to proceed with superimposed layers of just 17 centimetres.

The tamped concrete provides a counterpoint to the old wall, while with regard to the wood, the pre-existing pinewood beams, which were still well preserved in the stable, are combined with sawn oak planks. The new timber is in solid oak and has not been treated in any way. Various experiments were also performed on the cutting, in an attempt to obtain floors which are raw and unfinished yet possible to walk on barefoot. The solution was found in a cut carried out with a band saw, which eliminates all splinters with a slight oscillation of the blade. In addition, to avoid differences in height between one plank and the next, the overlaying, non-visible part was planed. Thus planks of 80 millimetres in thickness were planed on two sides, then cut into two parts with the band saw and opened up like a book. The entrance flooring was created with coarse gravel laid by hand

and spaced with cement mortar, in the manner of a tile.

From the 1860s onwards, many stables in Soglio were built with walled corners in order to safe wood. Prior to this, stables were built using the *Blockbau* technique, thus using a tree for each beam of the wall. With the system of walled corners, it is possible to exploit the timber to a greater extent, including with the introduction of joints between one element and another. The converted stable is one of these, on which a repair has been carried out on the existing wall. Heat insulation was also laid and the fixed frames of the windows and doors were fitted before the concrete was cast. The outside door and window frames are therefore in line with the pre-existing wall and the wall in concrete cast in situ, and are thus irremovable.

Every element of the house was designed, excluding some furniture. Even the windows and sliding French windows are custom designed. Their main purpose is not energy and thermal efficiency, yet they are markedly in line with the general philosophy of the project.

Another interesting theme of this house is the exterior spaces, as they are accessible from each floor of the project. A courtyard is therefore present at each level. On the ground floor there is a small courtyard for the bedrooms, on the first floor to the rear for the living room and on the top floor a loggia with a fireplace, which takes up half of the surface area.

The second architectural project that I would like to present is a new house in Castasegna, just above Villa Garbald by Semper and Il Roccolo by Miller&Maranta. The aim of the project was to build a house that is small and inexpensive yet of high quality at the same time. The house has been built for a couple, incidentally for the managers of the foundation at the nearby Villa Garbald. To reduce costs, it was decided not to sacrifice the quality of the materials but rather to apply a process of reduction which led certain non-essential finishings to be omitted, choosing a number of unfinished or raw materials in their place.

The house is built on a slight slope with the roof sloping against the slope, a solution which confers sleeker proportions on the main façade. From the main entrance, facing down the valley, to the rear of the house there is a difference in height of one floor, as can be seen from the cross-sectional drawing. The corridor on the first floor is 15 metres long and 5.8 metres high, and allows the dimensions of the whole house to be perceived in both depth and height. A great deal of care has been taken with choice of plasters and types of mortar used. Specifically, a specially-made artisan lime plaster has been used for both the interior and the exterior.

The house is located in a setting which includes a number of traditional farmhouses for chestnut drying, alongside other more recently built houses lacking in any particular architectural qualities. The house establishes a dialogue not with the pre-existing buildings but with the type of orchards

enclosed by walls that are common in Bregaglia and also in Castasegna. The house's relationship with its setting, therefore, is expressed through the theme of the wall as an element used in the construction of the landscape. In the house, the outer wall exceeds the height of the roof, partially hiding it, and is crowned by a covering in concrete elements prefabricated in situ, which bestows elegance upon it.

The exterior plastering is made with sand, fine gravel and lime, with no added pigments. The colour thus derives only from the sand. The rough, textured appearance is obtained from the plastering: after application, a brushstroke of acid is applied to keep the lime soft at the end of the day's work, and the work is finished the next day by washing the surface with a pump. Thus in the plaster it is possible to make out what in German is defined as the *Tagwerk*, that is, the working day, with the stages clearly visible and signs of the work being broken off at the end of the day and taken up again the following day.

The windows are in larch wood. The ones on the main façade are different in size and shape yet in proportion to one another, and arranged as if in a kind of play of composition. On the left-hand side of the house is the garage. The floors are made with a screed without any additional machining, left raw and without additional finishing. In the same way, on the walls, there is unpainted lime plaster. The ceilings have been left in bare concrete, with the rust of the reinforcing bars still visible. In contrast, the interior doors are full height and in solid larch, custom designed and therefore rather costly. The stairs, too, are in bare concrete, but with a "luxurious" red carpet by way of contrast.

Finally, the large black counter of the kitchen (which almost has the appearance of a workshop) captures the attention, constructed in situ in black concrete and completed by panels and drawers in red MDF. An inexpensive kitchen has been positioned beside the counter. The stove needed an outside air intake for correct draught conditions, which is guaranteed by the presence of a *Katzentür* or cat flap.

The theme of the project has been attention to every detail in order to achieve excellent quality in spatial and design terms while reducing costs as a result of the limited budget.

The third building that I wish to present is the warehouse for the artist Miriam Cahn, situated in the craft area of Stampa and not yet finished. It is a container for materials and artworks and a working space for the artist. From the compositional perspective, the prism is monolithic and compact, overhanging a set-back base, hidden by a deep shadow which introduces an antithetical levity, as if the large, heavy container were "suspended" over the sloping ground between the road and the river.

The theme is that of constructing a building that combines two vocations:

being a workshop and having an architectural stamp. The solution lies in the choice of material, and the concrete combines the two aspirations: it is industrial, yet the design of the formwork grants it architectural expressivity. The idea is that of using a "poor" concrete, with the formwork that must point to the imprecision. The search for the correct solution to control this imperfection was extremely arduous and was conducted through the use of tests and 1:1 scale models.

Architecture is expressed here with a radical language: white concrete which bears the sign of the "imperfect" formwork in unfinished planks, "giant" windows, handcrafted windows and doors made of industrial iron frames painted with a brush. All of the elements/materials are laid on the same level, flush with the exterior, to give the impression of having placed everything inside the formwork. The roof is in gravel, without sheet metal which is replaced by a synthetic rubber to lend the building uniformity in terms of colour and material.

Completing this rigorous approach, oriented towards essentiality, there are "plastic" elements such as the drainpipes and the pedestrian access ramp, which further investigate the potential of concrete to take on forms and be shaped with an expressivity on the borderline between architecture and art.

The three pieces of architecture introduce themes that are very different from one another, yet in keeping with the goals of the Wakker Prize, which, in addition to acknowledging the conservation and redevelopment of existing buildings, rewards (as I said in my introduction) contemporary projects that enhance the landscape and present it in modern terms.

On page 58
Fig. 1. Recovery of a disused stable in Soglio, detail of the courtyard facade

Fig. 2. House in Castasegna, South Front. Photo by Ralph Feiner ©
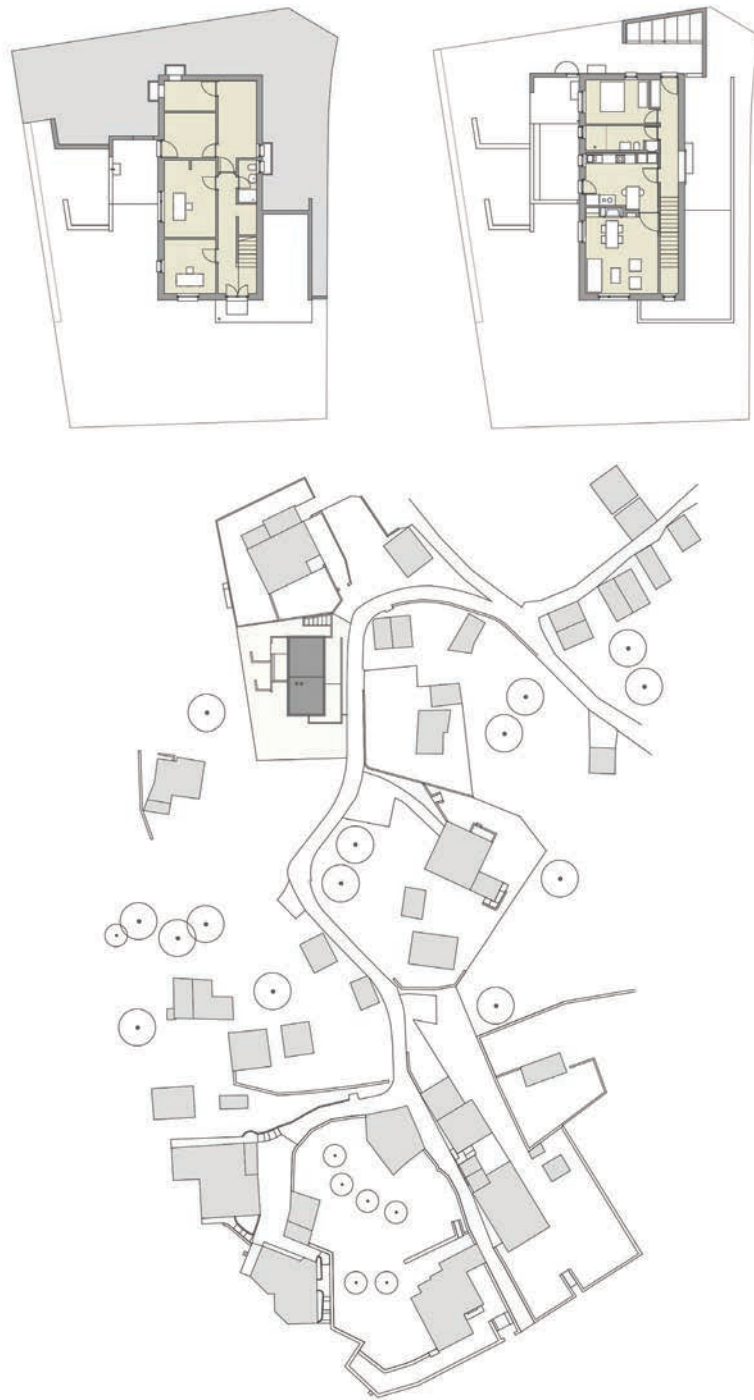
Fig. 3. House in Castasegna, layout plans of the ground and first floor and planning framework
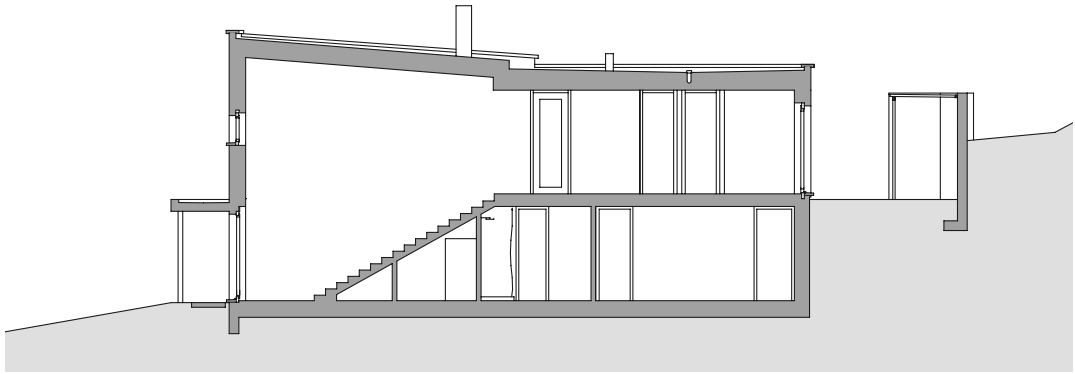
Fig. 4. House in Castasegna, longitudinal section

Fig. 5. House in Castasegna, East Front. Photo by Ralph Feiner ©

On the next page
Fig. 6. House in Castasegna, Stairs. Photo by Ralph Feiner ©

Fig. 7. Recovery of a disused stable in Soglio, before renovation

Fig. 8. Recovery of a disused stable in Soglio, after renovation
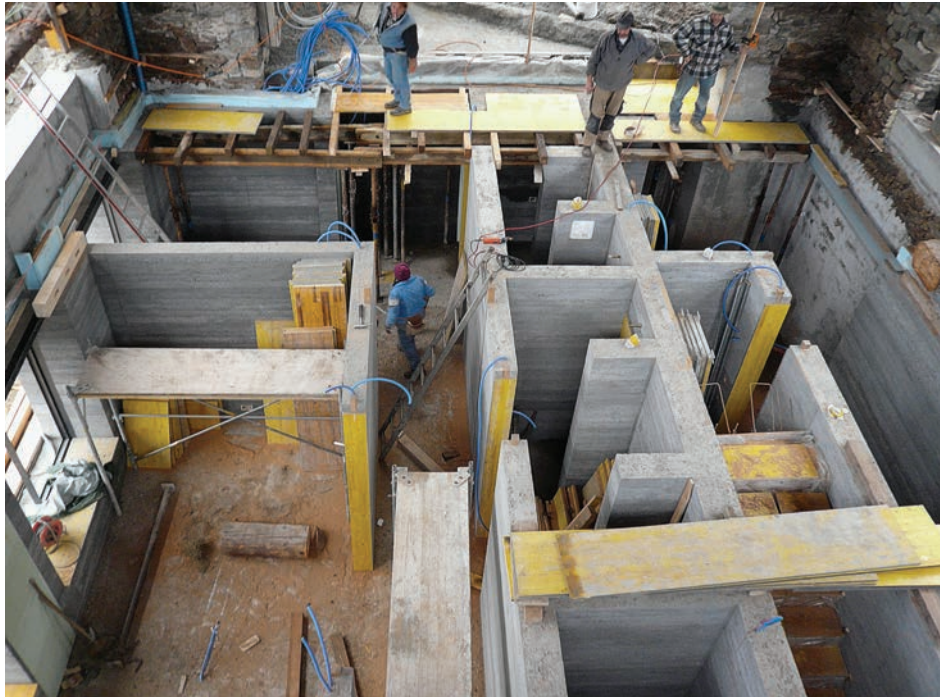
Fig. 9. Recovery of a disused stable in Soglio, construction site

Fig. 10. Dam of Albigna, Bregaglia valley. Photo by Hubertus Hamm ©

Fig. 11. Recovery of a disused stable in Soglio, loggia entrance

Fig. 12. *Miriam Cahn's warehouse* in Stampa, northern view.
Photo by Ralph Feiner ©

Fig. 13. *Miriam Cahn's warehouse* in Stampa, from the inside looking out.
Photo by Ralph Feiner ©

Restoration of the Türalihuus and other projects in Surselva
Capaul & Blumenthal - Ramun Capaul

Gordian Blumenthal and I established Capaul & Blumenthal Architects in 2000. Our office is based in Ilanz, a small town in the Swiss canton of Graubünden.

I would like to begin by showing you a photograph of Péz Regina that I took from my house, from the place where I usually sit and have breakfast. I compare it here with an image of a crystal that was extracted from its womb. I find it helps to illustrate the relationship between exterior and interior, between appearance and the "osteology" of the section.

An important part of our comprehension of architecture was the development of the settlement inventory of Lumbrein, the village in Val Lumnezia where I was born and where I returned after my studies. As early as the 1970s, Peter Zumthor, who then worked for the department for the preservation of historic monuments in Graubünden had launched a project to survey the built heritage of Lumbrein. The project was sadly never completed due to lack of funding. However, more than twenty years later, while I was still a student, I was asked if I would be interested in re-starting and completing the survey. The research was an invaluable opportunity to investigate the built heritage of the village, to analyse the structure of the village, to examine and describe the house types and their construction, and finally to create an inventory of all the individual houses.

In particular it was interesting to discover how the individual groupings of buildings formed public open spaces. One of these groups consists of six residential gable walled houses dating from the eighteenth and nineteenth century, including the parish house. The houses face each other in two slightly broken rows with stone bases on which the timber structures of the upper floors protrude. This gives the street leading to the church

a particular sense of importance. In another example, three eighteenth-century residential buildings, instead of facing the valley, look out on to a square with a large fountain where the women used to do their washing — where village life took place. Public spaces were created without the need of a master plan and without an architect.

The essential survey drawing, the one that best illustrates the structure of the village, is the drawing that represents all the ground floor plans. To create it we had to enter every single house and accurately sketch the layout of the principal floor. Drawing these plans is always fascinating because they give you a clear idea of the prevailing typology of the buildings. The residential house, built in timber using the *Strickbau* technique (a traditional solid timber construction where the wooden beams are layered and "knitted" together at the corners) is a type that has evolved and has been transformed over centuries.

In the 17th century a single family would normally occupy a single house, while in the 18th century a type of double-house for two families became common. They continued to be built using the *Strickbau* technique. These types of houses are symmetrical, with two *Stuben* (sitting rooms, or main family rooms) at the front of the house, a central entrance hall, and two kitchens to the rear. In the 19th century variants of the double house evolved, for example with the addition of a room between or next to the *Stuben*, or with the central hall enlarged and transformed into a kitchen.

More recent examples of the continuing evolution of this *Strickbau* double-house type date from the first half of the twentieth century: like house no. 191, they are no longer symmetrical, mirrored on the ridge axis. The two households are no longer next to each other; they are divided by being placed on top of one another. The house now has a higher proportion and enlarged vertical windows.

After the Second World War industrial prefabricated construction products eventually replaced traditional building techniques in Val Lumnezia. It was only in the '90s that *Strickbau* made a comeback, aided in large part by Vrin based architect Gion A. Caminada, who was instrumental in updating and refining traditional techniques.

What makes Lumbrein unique however, compared with other villages in Val Lumnezia, is the presence of its two towers. The tower house is a medieval type with a relatively small footprint and with rooms superimposed vertically on top of one other as opposed to being placed horizontally next to each other.

Historically, in Graubünden, this type of stone building was a defensive structure built on promontories overlooking the valley. The two towers in Lumbrein are ambiguous because they sit in the centre of the village and were in fact built for the local aristocracy.

Casa da Meer

The survey of Lumbrein formed an important foundation for our work. One of the first projects we did involved the restoration of an eighteenth-century double-house in Lumbrein. Like all double-houses in this area it was originally occupied by two families who shared the large entrance hall. But economic and social changes in the second half of the 20th century increased the need for privacy, and as a consequence the shared entrance hall was divided by a wall; the double-house type, which had been sustained for centuries, lost a generous shared area, and with it an important spatial quality; since the 1960s, the two parts of Casa da Meer were thus inhabited by parties that no longer shared a common hall. In 2000 there was a change of ownership that enabled it to be occupied by one family and to be converted into a single-family house. This allowed the generous spatial quality of the original to be restored. Now the challenge was to merge the two parts. We dismantled the more contemporary fixtures and gave the rooms that were doubles of each other a new use: one of the two kitchens was converted into an entrance wardrobe and wet-room, and one of the sitting rooms was changed into a dining room. The two symmetrical external staircases leading to the two entrances were kept, while inside one of the two staircases leads to the bedroom floor and the other to the basement. Larch wood was used to embellish the ground floor. In the rest of the building we continued to build with the same material as in the original house, staying true to the *Strickbau* structure with solid spruce beams, while introducing simplified joints that reinterpret the traditional ones.

Casa d'Angel

Around ten years ago, we realised that there were several unoccupied houses in Lumbrein, as well as many disused stables, and so we came up with an idea of creating a loose network of buildings that could be used for cultural purposes, to make use of the disused buildings. Ultimately our proposal, "Spazi - art e cultura", backed by the International Commission for the Protection of the Alps, CIPRA, was not successful. But ten years later the original proposal helped us to revive the idea in the creation of an exhibition space. Peter Zumthor restored this house in 1987 and converted it into a town hall. But due to the merger of municipalities in Val Lumnezia it had been left disused since 2013.

   With the conversion of the former town hall into a cultural centre for the valley, the crystal I referred to at the beginning finally found its home. The crystal is approximately one cubic meter in size and weighs almost a ton.

It is worth about 200,000 Swiss francs and now sits in the basement of the building where we converted the former archive into a museum space by renovating the natural stonewalls with lime plaster, and by roughing the surfaces of the newer concrete walls. We preserved Zumthor's conversion of the upper floors as much as possible while adapting the rooms to their new function as exhibition spaces. The first exhibition opened in the summer of 2015 and more temporary exhibitions are planned for the future. These events will distinguish the Casa d'Angel as a museum of regional significance.

Türalihuus

Valendas is twenty kilometres from Lumbrein. In many respects the village differs from neighbouring villages such as Flims or Laax on the other side of the Rhine. For one thing it is in the shade for two months; furthermore it is not a well-known tourist destination and has seen a marked population decline in recent decades. On the other hand Valendas is also characterized by the fact that due to the lack of tourism a great number of historically valuable houses have been spared from demolition or over-hasty and profit-oriented reconstruction.

To provide the village with a new impetus, the population of Valendas founded the association "Impuls Valendas" in 2003. In 2006 our office was commissioned to draw up a feasibility study supported by the Swiss Heritage Society for the rehabilitation and revitalization of the abandoned houses in the village square. Invigorated by the study, a foundation was established for the purchase and conversion of the former Engihuus. The architect Gion A. Caminada was then commissioned with the realisation of the Gasthaus am Brunnen. Correspondingly, the Türalihuus was acquired by the foundation "Ferien im Baudenkmal" [Holidays in a Historic Monument], which commissioned our office to restore and convert the building into a holiday house. The foundation was established in 2005 by the Swiss Heritage Society based on the Landmark Trust, founded in Britain in 1965 by Sir John and Lady Smith to acquire endangered monuments, to reconstruct them structurally and to make them accessible to the public for holiday purposes.

The Türalihuus, set back slightly from the village square, stands directly on the main road from Ilanz to Versam. A striking feature of the building is the stair tower on the west façade, which gives the building its name and which bears witness to the local nobility's ancestry in the *Ancien Régime*. The building had been empty for more than 60 years and was slowly disintegrating until we were able to begin planning its refurbishment.

Under the crumbling twentieth century render, fragments of five different versions originating between 1465 and 1775 were revealed, impressively illustrating the complex building history of the house. The first phase of the building dates back to the fifteenth century and shows a gabled house with three floors, which is oriented towards the main street. The staircase was originally in the middle corridor. In the middle of the sixteenth century the tower was built, which took up the vertical development and underlined the stately character of the building. In the seventeenth century both the main building and the tower were raised by one floor. In the second half of the 18th century the tower was again extended with a new room at the top of the tower that allowed for a view extending across the fields and into the Surselva.

The five different historic layers of paintings gave rise to the question which of the layers should finally be depicted on the facade. The simplest approach would have been to choose those done on the final completed building and to carry out a uniform textbook restoration of it. However, we did not want to cover the older layers that had once been concealed and had re-emerged over the years through erosion. We finally decided to treat all five layers equally and to leave them all visible. The facades were therefore repaired and not reconstructed.

The existence of different epochal versions, which in reality were created one after another, each existing in their own right, became the leitmotif of the facade restoration carried out between 2010 and 2012. The concept of *Mut zum Fragment* [courage to preserve fragments], as has long been applied in the restoration of figurative frescos and implemented in sacred buildings, was here transferred to the ornamental and architectural motifs of a secular building.

Another important aspect was the choice of historical material and its correct application. So we organised a course with craftsmen to learn about the production and application of lime. The composition of the historical slaked lime plaster was precisely analysed and the new plaster was produced according to its exact recipe.

Inside the building we found smoke-blackened kitchens, whitewashed corridors and colourfully painted panels in the principal living room. These three characteristic environments, together with our wish to make the least possible structural changes in order to respect the nature of the building, were important factors in our conversion concept.

This conservational approach, which we had already applied when we restored the exterior, also came to bear in the renovation of the interior. The approach could be described as "preservational brutalism". For example, even after careful restoration, the wooden panelling and wall surfaces are preserved in their original condition with all the traces of use. The

surfaces were cleaned and secured, however, they show the traces of time caused by wear. Interventions were reduced to a minimum. Any new additions were made of materials we found on site and were developed in close collaboration between the architect and the craftsmen.

Cinema Sil Plaz

The last project that I want to present is located in Ilanz in the Surselva region. Even though Ilanz is quite a small historic town with only 2500 inhabitants it is nonetheless a cultural centre and focus for the region. After the closure of the cinema Kino Darms twenty years ago the cultural life of the village found itself in a bit of a crisis due to the lack of places to socialise. At that time we formed a group whose response was to set up a film club and we began to try to locate a suitable space for public screenings. Eventually we found an old blacksmith's forgery and held an initial film screening there as an experiment. The audience was enthusiastic and supported the club's proposal to turn the forgery into a cinema. We were given the task of creating an auditorium to seat fifty-two people and a bar/café space with a stage for concerts and theatrical performances in the foyer.

   The first problem we had to solve was how to reduce the noise coming from the cinema so it would not disturb the neighbours. We didn't want to use industrial materials and tested various methods for using rammed earth (*pisé*) as an alternative. It's not a traditional construction technique in our region, but all the necessary materials can be found nearby. We were interested in the idea of juxtaposing film screenings, a symbol of modernity, with an archaic element like earth. To test this type of construction we created an installation using the same technique, which we presented at the "Swiss Art Awards" exhibition. After huge efforts and several attempts Gordian Blumenthal and I finally created a rammed earth wall onto which we were able to project the prologue to *Persona*, Ingmar Bergman's 1966 film. Our installation won a prize, and this encouraged us to continue with our experiments, and moreover to make use of the results in the final design and construction of the cinema in Ilanz.

   We called in Martin Rauch to help us create the walls. He is an internationally acclaimed expert in rammed-earth construction and was able to recommend the correct mixture and other specific requirements. In 2009 together with the local craftsman Christian Aubry and other film-club volunteers we built the walls. The partitions for the projector-room and toilets are made of dark steel plate. In the other spaces we simply left the walls as they were and restored them with lime plaster.

   Cinema Sil Plaz in Ilanz was inaugurated in September 2010 with a

screening of Jean-Luc Godard's classic *À bout de souffle*, followed by a concert by the Canadian composer and cellist Zoë Keating. Today the Cinema is one of the main cultural venues in Surselva.

On page 72
Fig. 1. Péz Regina
Fig. 2. Cristal Péz Regina. Photo by Lucia Degonda ©

Fig. 3. Lumbrein

Fig. 4. The "inventories": the Lumbrein's ground floors plan

On the next page
Fig. 5. *Chisti* (Tower House), Lumbrein

Fig. 6. *Türalihuus* in Valendas, before renovation

Phase 5

Phase 5
Phase 5
Phase 5

Phase 1

Phase 1

Phase 1

Phase 3
Phase 3

Phase 4

Phase 3

Phase 1

Phase 4
Phase 3

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Phase 4
Phase 1
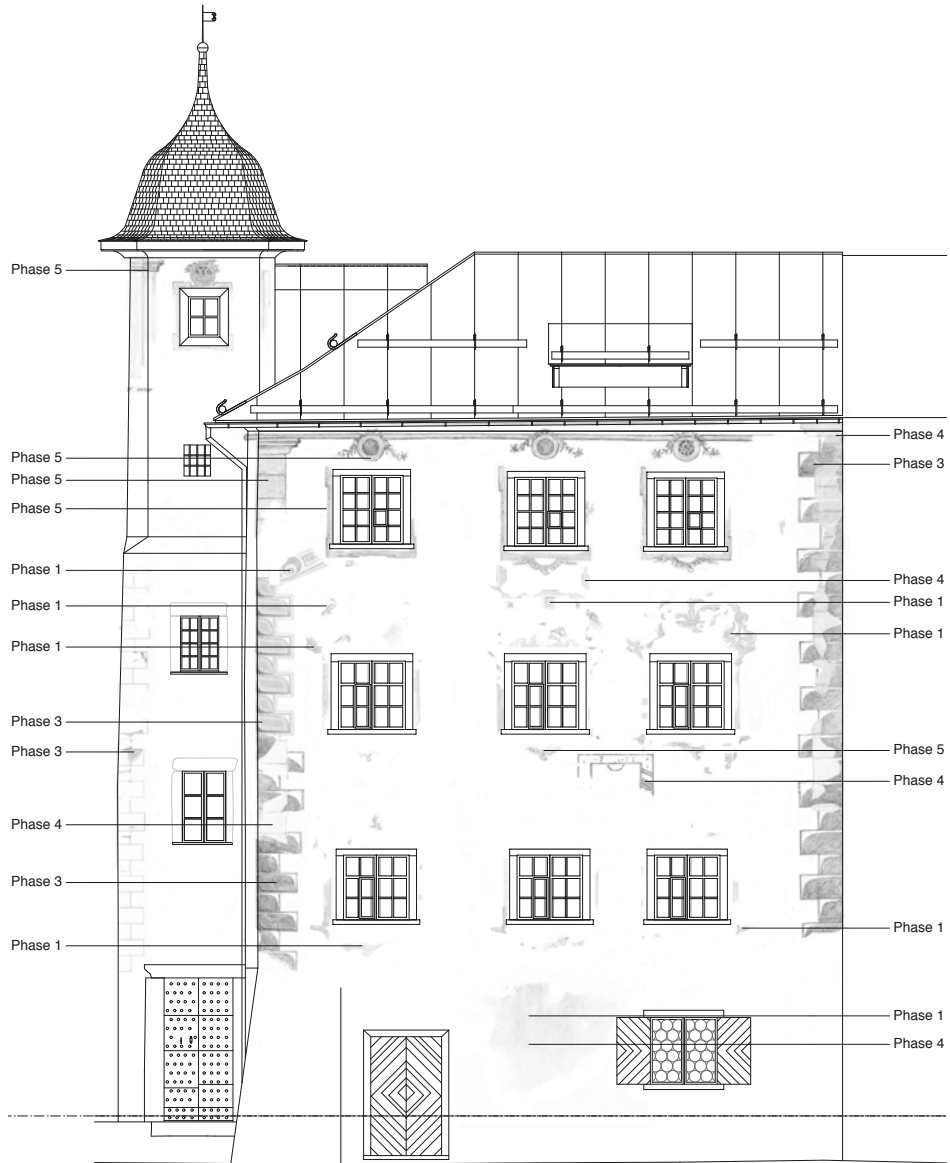Phase 1

Phase 5
Phase 4

Phase 1

Phase 1
Phase 4

Fig. 7. *Türalihuus*. Different historic phases discovered on the southern facade

Fig. 9. Renovated *Türalihuus*. Sections and plans

On the previous page
Fig. 8. Renovated *Türalihuus*. Photo by Ralph Feiner ©

Fig. 10. *Türalihuus*, "Blaue Stube" before renovation

Fig. 11. *Türalihuus*, "Blaue Stube". Photo by Laura Egger ©

Fig. 12. *Türalihuus*, Kitchen. Photo by Laura Egger ©

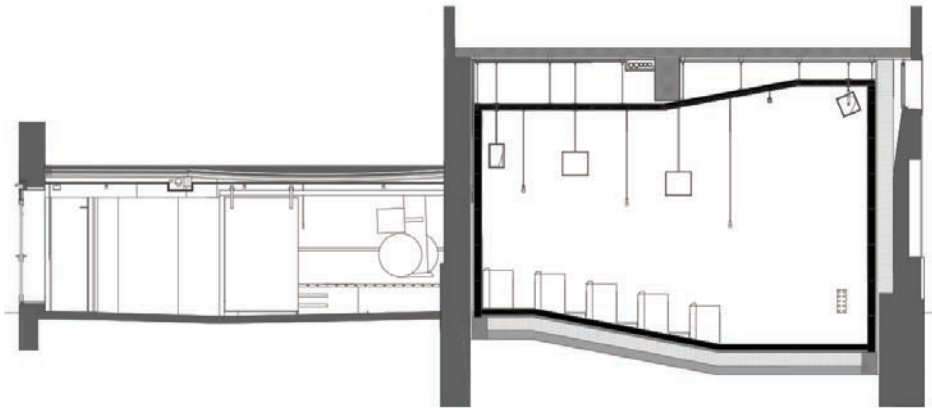Fig. 13. *Türalihuus*, Bathroom. Photo by Laura Egger ©

Fig. 15. *Cinema Sil Plaz*, Ilanz. Longitudinal section

Fig. 16. *Cinema Sil Plaz* Ilanz, before renovation

On the previous page
Fig. 14. *Türalihuus*, "Weisse Stube" with alcove. Photo by Laura Egger ©

On the next page
Fig. 17. *Cinema Sil Plaz*, Ilanz. Photo by Laura Egger ©

Tradition and modernity in protection for mountain accommodation establishments.
The Seehotel Ambach on Lake Kaltern by Othmar Barth

Wolfgang von Klebelsberg

In the case of historic hotels, the term "protection of monuments or culturally significant architectural works" includes the aspect of the past as well the modern, contemporary aspect. In this sense, protection can be interpreted as a tradition which is in a state of continuous development, a dynamic, which in the field relating to architectural works that constitute accommodation establishments, is often subject to incisive innovation designed to satisfy the demands of a market which is continually evolving. Tradition and modernity, history and *Zeitgeist*, are not only an indispensable marriage of contrasts but also a paradigmatic interaction, an interface between time and the past, between evolving and evolved monuments. The key issue might be that of establishing when an object becomes historic. To solve this issue, we may attempt to reconnect with the historical contextualisation of the spirit of the times and of culture, assuming that only people with a responsible approach to culture will not allow those qualities which are able to stir up everything that there is which is more human to fade away. The fact that the intensive relationship with monuments is based above all on memory leads us to challenge memory constantly, elevating history in a positive way to the sphere of human self-representation.

For the Seehotel Ambach by Othmar Barth, one of the most influential architects from the Alto Adige region from the 1950s to the beginning of the 21st century, the concept of history and the spirit of the time or tradition and modernity must be interpreted as the prevailing cultural trend in any given era. Although the hotel is the consummate architectural expression of the 1970s, it leans on the late 1920s, the 1930s and the 1940s, and is the architect Barth's crystallised interpretation of place, space and time.

The building's *Zeitgeist* has already gone into the book of our more recent history, it has already been filed away and settled in this mysterious container called "the past", despite remaining habitable in a very realistic way. Although Othmar Barth's work, which was completed in 1974, originated from as specific spirit of the times, today it is seen as a building which has moved beyond trends, time and fashions. It is a building that is capable of bewitching, enchanting and satisfying guests seeking a harmonious blend of architecture and nature. In this singular piece of architecture's merging with nature and thanks to the great attention to detail in its interior and exterior spaces, each guest finds their own personal elixir, their particular dimension contained in a continuum called time.

On page 92
Fig. 1. Dialogue between light and space in the interior. Photo by René Riller ©

Figg. 2-3. *Seehotel Ambach*, from the lake and from upstream.
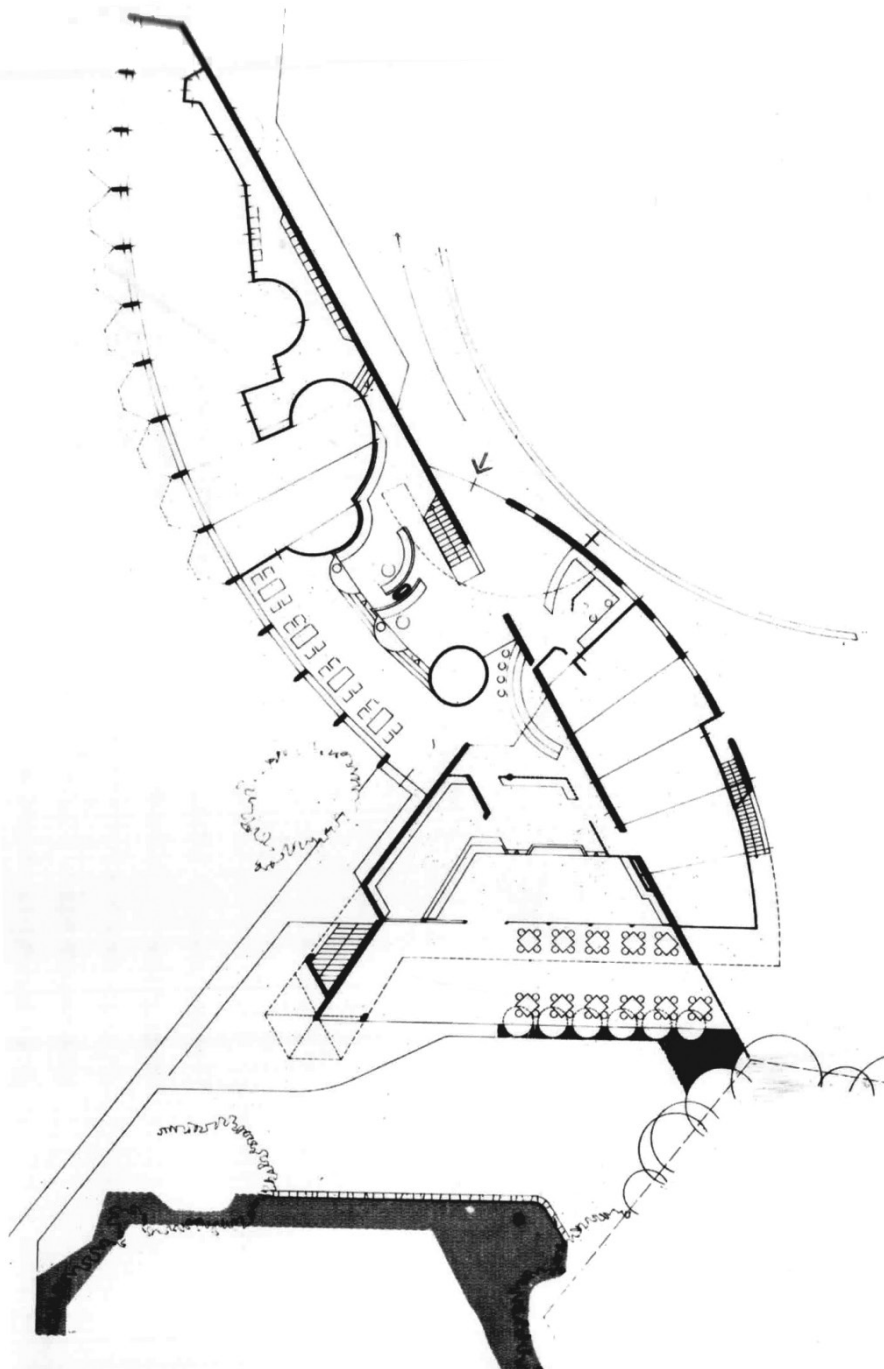Photo by René Riller ©

Fig. 4. The 'sailing ship-like' design of the hotel

Fig. 5. Hospitality and landscape. Photo by René Riller ©

Fig. 6. The review's ten issues

Memory and distance.
The Hotel Paradiso by Gio Ponti and other waiting places
Luciano Bolzoni

> Go and remember what you see,
> or it will fade back into the wind.
> Paolo Rumiz[1]

> Architecture lasts, it creates the future:
> it has been conceived by architects
> not for us, but for the future.
> Gio Ponti[2]

Before even entering the hull of this strange mountain ship which is the Sporthotel, a steamship on the snow, to quote Mollino, Ponti's friend and sometimes a little envious of him because of his successes, let us pretend that the vessel does not exist and draw ourselves up to it only when we are at the end of the plateau that hosts it.

Indeed, once we have ascended up to here – we are at almost 2,200 metres above sea level – in a space where the wood gives way to a marshy plain populated exclusively by wild animals (which are not at all frightened), when we become aware of its awkward presence it is a little too late not to realise, perhaps, that the old building desired by Ponti, hoisted perhaps by the very arms of Herzog's Fitzcarraldo slaves, although it just about floats in the marshy hollow of Paradise, it has come to be part of a landscape which conveys to the world the best possible images of a perfect, imagined

1   P. Rumiz, *La leggenda dei monti naviganti*, Feltrinelli, Milano 2007.
2   G. Ponti, *Amate l'architettura*, Vitali e Ghianda, Milano 1957.

Alpine space. Perfect because it is not defined by the gazes of tourists. Imagined because here, in this paradise, our holidays have been all too short.

A good number of questions will remain without an answer encountering the hotel designed by Ponti together with his trusty engineers Fornaroli and Soncini, and some will urge us to accept their fates, even though perhaps they are not yet completely decided. Was it really necessary to build it right here? Why does it turn its back to its valley? And why don't they repair it?

This "unprecedented hotel" is at the head of a syndicate of non-conventional Alpine ruins which from Mollino to Cereghini delineate the space of many – too many – "waiting places" which are all fighting their own "test of time" which, as Ponti himself wrote:

> can stretch all the way to the extreme of the ruin: an architecture that one would like to be beautiful even as a ruin. Ancient, stone architecture succeeds in this; today architecture fights against time with incorruptible materials (glass, cement, ceramics), it refuses the patina of time. If time wins, it reduces it to scrap.[3]

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3   *Ibidem.*

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Fig. 1. *Sporthotel* del Paradiso del Cevedale, Val Martello, designed by Gio Ponti with Antonio Fornaroli and Eugenio Soncini, 1935-1938.
Photo by Henry Gottardi ©

Fig. 2. The abandoned Furggen's cableway arrival station

Fig. 3. The state of abandonment and neglect of the *Sporthotel* del Paradiso del Cevedale, Val Martello, designed by Gio Ponti with Antonio Fornaroli and Eugenio Soncini, 1935-1938. Photo by Alpes/Giorgio Dalvit ©

Fig. 4. The round windows of the *Sporthotel* inner stairway, from which one may see the extensions added in a second time and never used.
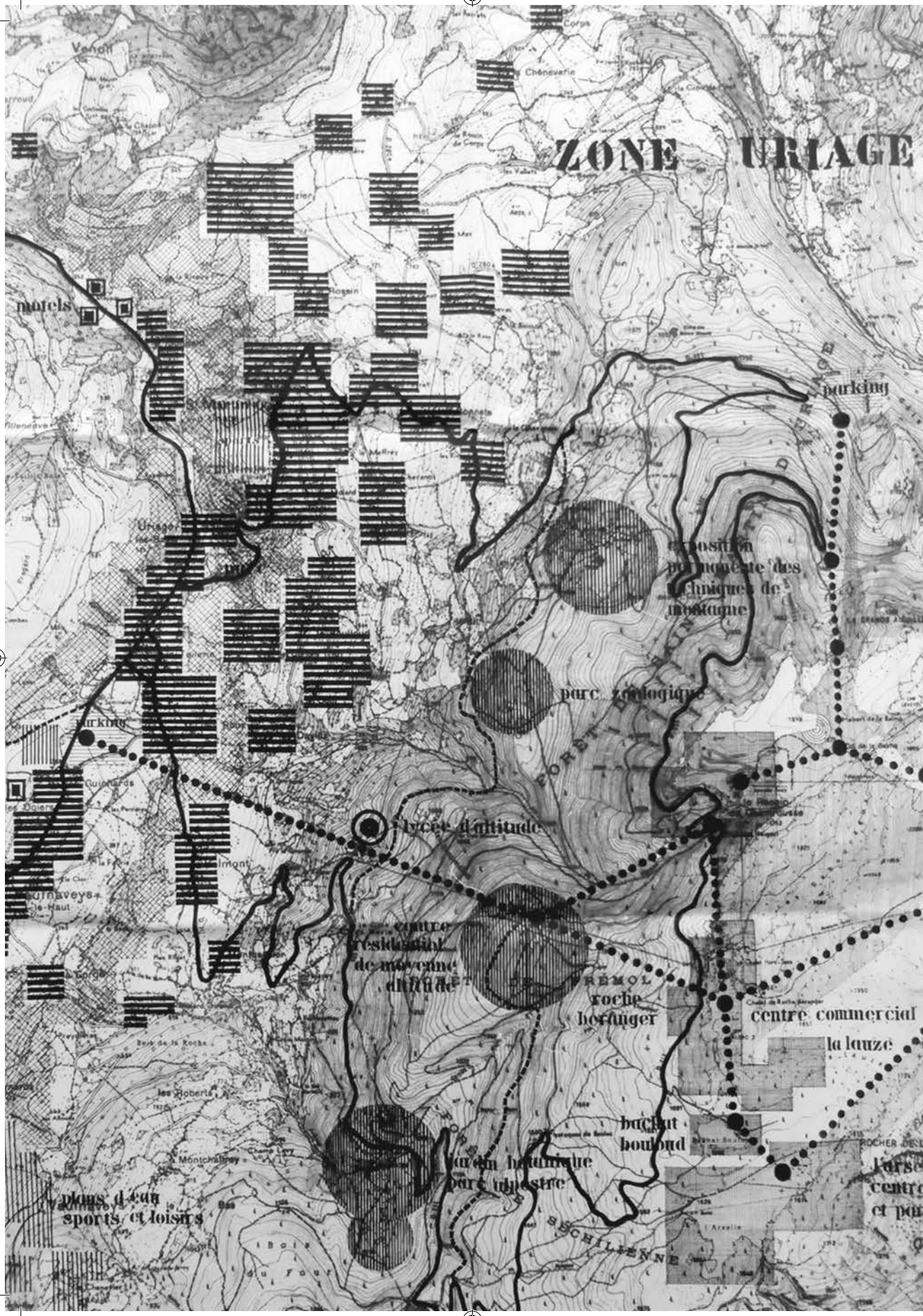Photo by Alpes/Giorgio Dalvit ©

Fig. 5. Detail of the roofing. Photo by Alpes/Giorgio Dalvit ©

On the next page
Fig. 6. A perspective of the *Sporthotel* with the Monte Cevedale in the background.
Photo by Alpes/Henry Gottardi ©

motels

parking

exposition
permanente des
techniques de
montagne

parc zoologique

parking

lycée d'altitude

centre
résidentiel
de moyenne
altitude

REMOL
roche
horloger

centre commercial
la lauze

bichat
boulud

jardin botanique
parc alpestre

plans d'eau
sports et loisirs

The construction of a landscape for leisure time. Experiences from the other side of the Alps

Caterina Franco

After the Second World War, following a period of economic growth and thanks to major social changes such as the introduction of the paid leave or the spread of the practice of winter sports, the Alps become, during short periods of the year, the prime destination of a large number of tourists coming from the cities. New touristic centers dedicated to winter activities are built at high altitude: they are thought to have a certain number of accommodation facilities, as well as ski-lifts. Since the sixties, a new model of ski resort is established in France thanks to a collaboration between public and private stakeholders. The French case, the peculiarity is the establishment of a central authority (CIAM since 1964, then SEATM since 1971)[1] , aimed at selecting the sites to be developed, orienting the allocation of funding, interacting with promoters and designers. Nowadays, these settlements are facing problems which were hard to imagine when massive planning in the mountains took place. Climate change, a mutation in tourists' habits, the rising of problems linked to the preservation and the general economic situation are putting the survival of this built heritage at risk, particularly the model of the high-altitude ski resort, the so-called *station intégrée*.

These new emergencies influence the scholar's approach, interested in proposing strategies for the sustainable development of these facilities. If, in the field of architectural studies, the construction of the ski resort has often been read as the implementation of a de-contextualized model, this

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1   *Commission interministérielle d'aménagement de la montagne* (CIAM), then *Service d'étude et d'aménagement pour le territoire de montagne* (SEATM).

research, part of a Phd thesis[2], follows the hypothesis that the territorial anchorage is the key for understanding the evolution of the settlement and that it also constitutes a strategic element to plan its further development. The research thus proposes a shift from an analysis of architectural objects towards a study of the high-altitude tourist resorts as elements of infrastructure, realized on a specific site. We define infrastructure as every social and technical component of a *système touristique*[3] and we use the concept of territory including geomorphological, anthropic and cultural aspects[4]. The objective will be to read the history of the construction process through this perspective, focusing on certain moments: the project as it was conceived by the architect or the urbanist, its development through the network of actors who had a role in the *aménagement* of the mountains, until its taking concrete form in a specific site.

In addition, we would propose to go beyond country-based studies using comparison between the French and Italian cases as a knowledge tool. On the one hand, it is possible to show that geographical proximity and the existence of various moments of contact between architects is at the root of cultural exchanges and hybridisation of architectural models, while, on the other, it will be shown how two economic and political systems have offered different responses to the demand for new spaces for tourism. Support will come from the work of Laurent Chappis (1915-2013), cross-border architect and urbanist that dedicated all his life to a planning activity in various mountain region. The breadth of his production will allow us to compare case studies in the French and Italian Alps. The methodological approach is based on graphic and cartographic analysis of material collected in the architect's archives.

The research is founded on the belief that understanding the history of a region in its complexity is an essential and preliminary stage in any formulation of strategies for the future. We refer to an operational concept of history insofar as it enables to gain a critical distance to help in formulating appropriate terms and current critical issues.

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2   The thesis, titled *L'architecture du loisir dans l'après Seconde Guerre mondiale. Le cas des Alpes franco-italiennes* has started in 2015 and it's pursued inside the Laboratory MHAevt of the School of Architecture of Grenoble and the Department ABC of Politecnico di Milano.

3   L. Tissot, *À travers les Alpes: le Montreux-Oberland Bernois ou la construction d'un système touristique, 1900-1970*, in «Histoire des Alpes», n. 9, 2004, pp.227-244.

4   A. Magnaghi, *Il Progetto locale*, Bollati Boringhieri, Torino 2000.

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Fig. 1. Laurent Chappis, *Projet idéal non communiqué pour Chamrousse*, 1960, (Archives départementales de la Savoie, 30J149)

Fig. 2. *Plagne-Aime 2000*, M. Bezançon, 1970. Photo by Jean Biaugueaud ©, (Archives départementales de la Savoie, 17J11)
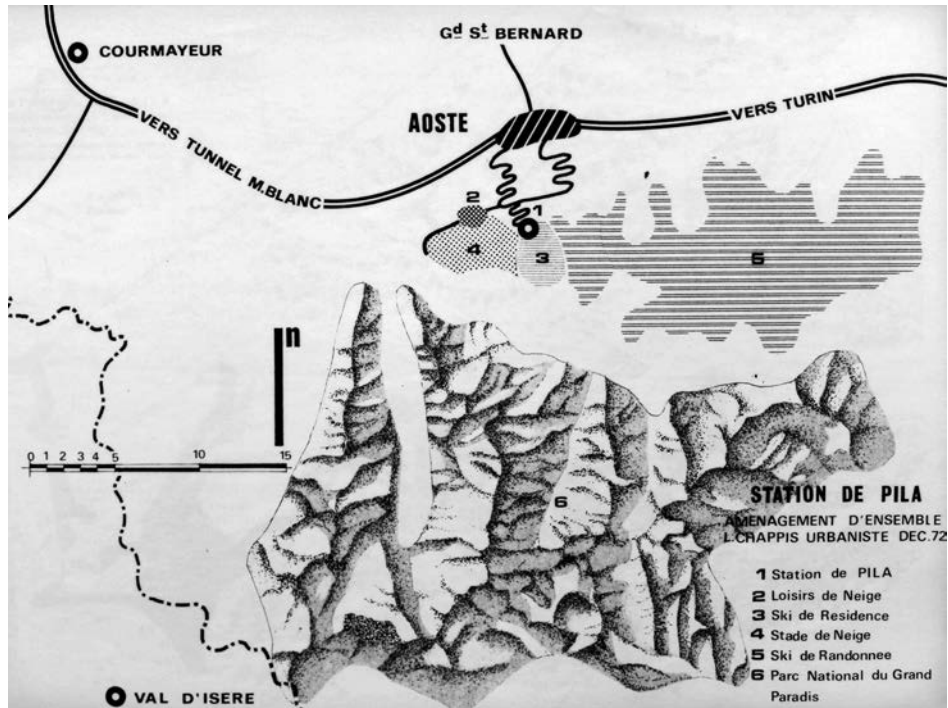

Fig. 3. Laurent Chappis, *Études pour la station de Pila*, 1964, (Archives départementales de la Savoie, 30J278)

Flaine or modernity in the mountains.
The construction and topicality of a high-altitude city
Yvan Delemontey

The result of an extraordinary collaboration between an enlightened commissioner and an internationally renowned architect, Flaine (1959-1988) is a unique winter sports resort (*station de sports d'hiver*). Built at 1.600 metres of altitude in front of the Mont Blanc, it is an image of France's triumphant modernity during the sixties. Renowned for the excellence of its ski area, Flaine is however criticised for its *béton brut* architecture which echoes the *grands ensembles* built in France during the same period. This similarity is not accidental since its creation makes use of the heavy prefabrication methods belonging to mass housing. This choice, atypical in the history of ski resorts, enables organising a construction site where innovative solutions multiply, providing a major contribution to French post-war architecture.

An urban planning, architectural and design prototype

Located in Haute-Savoie, in the French Alps, the ski resort of Flaine belongs to the policy projects of upgrading tourist facilities during the French *Trente Glorieuses*[1]. Like the great coastal development projects (Languedoc-Roussillon, côte landaise), the launch of the Plan Neige in 1964 aims to respond to the tremendous growth of mass tourism in the mountains.

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1 Created by economist Jean Fourastié, the term pinpoints the period of strong economic growth which France, like most of the developed European countries, experiences between 1945 and 1973; see J. FOURASTIÉ, *Les Trente Glorieuses, ou la revolution invisible de 1946 à 1975*, Fayard, Paris 1979.

The conquest of "the white gold" moves then from the creation *ex nihilo* of so-called "integrated" stations, in which a promoter, often private, with the help of the State and of the local community, decides the whole of the urban development and of the technical and commercial infrastructures[2].

Where each of these stations has its own story, certainly, Flaine's story is in itself exceptional[3]. Beyond its precursor role, everything in Flaine testifies to an extraordinary character: from the promoter's personality to the designers' talent, from the boldness of the construction techniques to the radical architecture, from the splendour of the context to the cultural vocation[4]. The counterpart of such an undertaking will be an extremely long gestation period, marked by many obstacles: almost ten years pass, in fact, between the choice of the site and the inauguration of the station by Minister Albin Chalandon, in January 1969.

Although Flaine is a collective work, it is primarily linked to the work of a single man: Eric Boissonnas (1913-2005). A geophysical engineer, a music-lover and an experienced skier, after a long stay in the United States, in 1959 he decides to return to Europe with the firm intention of

> creating an urban planning, architectural and design prototype somewhere in France, whose immediate yield would be subordinate to aesthetic choices and respect for the environment.[5]

A lover of mountains, his choice quickly turns towards the project of a

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2   See R. Knafou, *Les stations intégrées de sports d'hiver des Alpes françaises*, Masson, Paris 1978.

3   The episode is narrated by most of the actors involved; see E. Boissonnas, *Flaine, la création*, Editions du Linteau, Paris 1994; L. Chappis, *Historique de Flaine*, long extracts from his typescript diary, 1994, fonds de l'Atelier d'architecture en montagne (AAM), Archives départementales de la Savoie (ADS), Chambéry; G. Chervaz, *Historique de l'origine de la station de Flaine*, typewritten document, 1995, fonds G. Chervaz, Archives départementales de Haute-Savoie (ADHS), Annecy; D. Pradelle, *Retour à Flaine*, typewritten document, 1995, fonds de l'AAM, ADS, Chambéry; F. Berlottier, *Flain*, typewritten document, 1996, fonds de l'AAM, ADS, Chambéry.

4   For a more detached view of Flaine and its history, see H. Sardou, *La station de sports d'hiver de Flaine: une expérimentation brutaliste de Marcel Breuer en montagne (1960-1976)*, mémoire de DEA, Université Paris I Panthéon-Sorbonne, ENSA de Paris-Malaquais, 2006; S. Mazard, M. Moncéré, *Flaine, architectures d'une station*, CAUE de Haute-Savoie, Annecy 2009; B. Chaljub, *Marcel Breuer à Flaine*, CAUE de Haute-Savoie, Annecy 2014. For the constructive aspects of the resort, see Y. Delemontey, *Flaine: Montain City; The Building of a High Altitude Citadel*, in R. Carvais, A. Guillerme, V. Nègre, J. Sakarovitch (edited by), *Nuts and Bolts of Construction History. Culture, Technology and Society*, vol. 3, Picard, Paris 2012, pp. 449-456; Y. Delemontey, *Marcel Breuer à Flaine. Une station de ski préfabriquée*, in «AMC Le Moniteur Architecture», n. 228, November 2013, pp. 83-92.

5   E. Boissonnas, *Flaine, la création*, cit., pp. 7, 10.

ski resort located on the Arve-Giffre Massif, only 70 kilometres from Geneva, whose airport is able to accept a high-ranking international clientele, in search of fun and of fresh air.

At the same time as he founds the SEAMAG (Société d'Etudes pour l'aménagement du massif Arve-Giffre), Boissonnas surrounds himself with a team of brilliant designers. This includes architects-planners such as Laurent Chappis and Denys Pradelle, recognised at that time as the best French specialists in the field of mountain architecture[6], as were their Geneva colleagues, Gérard Chervaz, the discoverer of the site, and André Gaillard. The team is under the authority of the prestigious American Hungarian-born architect and designer Marcel Breuer (1902-1981), a friend of Eric Boissonnas, whose architecture is deeply admired by the latter. Their joint work, which the BERU (Bureau d'Etudes et de Réalisations Urbaines) and engineer Fred Berlottier, the technical director of SEAMAG, also participate in, leads to the creation of a definitive *plan masse* of the resort in February 1961, signed by all the architects. The agreement reached between them, however, cannot completely conceal the differences between Breuer's point of view and that of his French-speaking colleagues, which leads to most of them abandoning the project.

In accordance with the plan, Flaine is built facing the sun, on three successive natural plateaus - Flaine-Front de neige, Flaine-Forum and Flaine-Forêt - which house hotels, tourist residences, commercial activities and the services required for a population of 5000 inhabitants. Located in the heart of the resort, on the intermediate level, the Forum is built around a rectangular square which concentrates the main commercial, service and entertainment establishments. It is here that the very best of Breuer's architecture is expressed, in which the hardness of the *béton brut* facades interacts perfectly with the surrounding steep grey limestone cliffs. Through their severe geometry, the buildings show a completely urban modernity, totally in contrast with the traditional image of the chalet. With the complicity of his wife Sylvie, Eric Boissonnas infuses this modernity deep into the interior design, where Breuer's sculptural chimneys are set alongside furniture by the greatest designers of the time (Aalto, Agnoli, Colombo, Paulin, Saarinen, etc.). A contemporary art centre is created as soon as the resort opens and within a few years Flaine becomes the repository of works of art commissioned to renowned artists such as Arman, Dubuffet, Picasso or Vasarely.

6   Founding members of the Atelier d'Architecture en Montagne (AAM) located in Chambéry, they were for example the authors, immediately after the war, of the Courchevel ski resort, in the Tarentaise (Savoie).

The original choice of prefabricating

Building at high altitudes imposes several limitations (distance, difficulty of access, rigorous climatic conditions, etc.) to the point that all enterprises of this kind usually resemble an «aventure exceptionnelle»[7]. The main constraint is caused however by the long winter breaks, which reduce the operating time of the construction site to just a few months a year. In the case of Flaine, the importance of the operation and the search for a rapid execution – initially, the intention is to deliver a first part of the station (the Forum) for the 1963-64 winter season - leads to consider the use of new construction techniques. The impossibility for the convoys to drive up the narrow and winding road leading to the village of Les Carroz and especially the lack of an access beyond it, towards the Flaine site, cause the necessity, at the end of the Sixties, to prefabricate the construction elements down in the valley to then take them to the construction site by means of a specifically built cableway. Besides the technical difficulties which such a choice may create, however, there is the great advantage of being able to run the site both in summer and winter. For the first time, a ski resort would be built in France with the heavy prefabrication methods in vogue at the time.

This atypical choice will be immediately criticised by the French-speaking architects, led by Laurent Chappis, for whom precast concrete is basically inappropriate for the mountain, both for profitability and for aesthetic reasons. It is true that the resorts of La Plagne and Avoriaz, similar in size and built at the same time in the French Alps at between 1800 and 2000 metres above sea level, did not choose prefabrication. Built according to traditional methods, they primarily gambled on an extreme effort in organising the construction site, effectively alternating primary works (*gros œuvre*) and secondary ones (*second œuvre*) according to the seasons[8].

There are two further reasons which may justify the use of prefabrication in Flaine. The first lies in Marcel Breuer's will to continue his visual experiments on in-mould coatings, called "Sun and Shadow", used for the first time for building the IBM Centre (1960-1962), in La Gaude, South of France[9]. The second is the irresistible fascination Eric Boissonnas and the majority of progressive commissioners of his time held with modern

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7   See F. L., *Les problèmes de la construction à 2000 mètres*, in «Bâtir», n. 77, June 1958, pp. 93-105.

8   For the construction of these two important French resorts, see R. Cailléret, *La station de La Plagne*, in «Bâtir», n. 157, May 1967, pp. 55-66; P.-L. Debomy, *La station d'Avoriaz*, in «Bâtir», n. 166, May 1968, pp. 27-40.

9   See *Centre de recherches I.B.M. La Gaude, France*, in «L'Architecture d'aujourd'hui», n. 106, February-March 1963, pp. 18-25.

building techniques, whose constructive audacity was at that time embodied by prefabrication. They had yet to find, among the many possible processes available on the market, the one which could satisfy all these requirements. From this point of view, the Barets prefabrication system seems to have met with the acclaim of the principal and of his famous architect.

From Normandy to the Alps: the Barets processing methods

It seems to have been Max Stern, director of BERU, who introduced Jean Barets (1920-1990), president-general manager of COFEBA (Compagnie française d'Engineering Barets), to Eric Boissonnas[10]. This brilliant young *ingénieur-conseil*, a wartime graduate of the Ecole d'Organisation Scientifique du Travail, had initially worked for Sainrapt et Brice, before shining as the author of a reference publication concerning pre-stressing, which appeared in 1950 and was reissued several times[11]. He describes himself as being self-taught[12] and in 1952 he sets up his technical studio and develops a series of prefabrication procedures which he patents from 1956 and spreads throughout many countries. In parallel to his professional activities, in 1963 he founds a political debate club, "Technique et Démocratie", which tries to promote the integration of science in French political life[13].

Experimented for the first time when reconstructing Le Havre (1945-1959) and in building the *ville verte* of Canteleu (1953-1963), near Rouen, the construction system developed by Barets consists in prefabricating three types of reinforced concrete elements which constitute the structural works directly at the construction site: first of all the load-bearing facade panels, with the height of a floor and a variable width (3 to 6 metres) consisting of an external ribbed slab, flat-casted onto insulating empty bodies made of Pozzolana concrete; then two or three-span portals whose vertical uprights form the pillars of the framework and the transoms, i.e. the beam supporting the floors; finally the floor slabs, also characterised by two lateral and one central rib, braced at the ends and which, arranged side by side, rest

10 See R. F. Gatje, *Marcel Breuer. A Memoir*, The Monacelli Press, New York 2000, p. 115.
11 See J. Barets, *Le béton précontraint. Théories et calculs*, Eyrolles, Paris 1950. With a foreword by Eugene Freyssinet, the work is re-edited in 1953 with the title: *Le béton précontraint. Eléments de calculs*.
12 Concerning Jean Barets' path, see J. Alia, *L'ambition de Jean Barets*, in «Le Nouvel Observateur», n. 151, 4 October 1967, p. 21.
13 In this regard, Barets published several essays and ran for the presidential election in 1965; see J. Barets, *La fin des politiques*, Calmann-Lévy, Paris 1962; *Nouvelles équations politiques*, Calmann-Lévy, Paris 1964; *La politique en révolution*, Robert Laffont, Paris 1970.

on the central portal and the facade panels[14]. All these elements are moved with the help of a crane and produced directly within range of the elevator in order to facilitate their installation, to eliminate costly transport and to minimise their handling, the main source of deterioration of prefabricated elements.

Besides these technical advantages, Barets sees the on-the-spot prefabrication of these elements as an ideal «transition instrument» which «will ease the transition between yesterday's methods and those of tomorrow»[15]. In fact, the heavy prefabrication in the factory and the considerable investment that it requires, for him constitute a major obstacle to modernising a construction sector which still mainly consisted of small and medium-sized enterprises. His success is such that in 1968 no less than 25 French companies exploit the Barets system by building nearly 50,000 homes across the country and abroad, for example in Germany, Belgium, Italy, Switzerland and even in Malaysia[16].

After all, after their first applications in the early fifties, the Barets processing methods did not stop continuing to improve and diversify, spreading quickly to other structural elements such as stairs, closures or sanitary facilities. Thus, at the time of building a complex of 300 apartments for the OCIL (Office Central Interprofessionnel du Logement) in Vincennes, Jean Barets who joins the project as *ingénieur-conseil*, decides to develop a series of very refined ribbed facades with the Société de Sablières et de Travaux Publics (SSTP)[17]. This experience will subsequently allow him to patent a new panel consisting of a concrete "plaque" only three centimetres thick, stiffened by ribs and without any filling-up chamber[18], foreshadowing the famous moulded facades (*façades moulées*) used in Flaine.

14   For a full description of the various elements, see Institut National de la Propriété Intellectuelle (INPI), patent no 1.157.410, «Panneau de façade préfabriqué», patent no 1.157.411, «Panneau de plancher préfabriqué», patent no 1.157.412, «Portique préfabriqué et son dispositif de manutention», applied for by Jean Barets on 16th August 1956, issued on 30th December 1957, published on 29 May 1958.
15   J. Barets, *Exemple de préfabrication totale d'une cité. La ville verte de Canteleu*, in «Annales de l'Institut technique du bâtiment et des travaux publics (ITBTP)», n. 99-100, March-April 1956, p. 330.
16   See C. Bonnome, L. Léonard, *L'industrialisation du bâtiment, extrait de l'Encyclopédie pratique de la construction et du bâtiment*, Librairie Aristide Quillet, Paris 1969, p. 1421.
17   See J. Barets, *Construction de 300 logements à Vincennes. Chantier de l'OCIL*, in «Annales de l'ITBTP», n. 99-100, March-April 1956, pp. 331-342.
18   See INPI, patent no 1.184.040, «Panneau de façade préfabriqué», applied for by Jean Barets on 8th October 1957, issued on 2nd February 1959, published on 16th July 1959.

A construction site hanging by a thread

Faced with the impossibility of prefabricating on the spot, so dear to the Parisian engineer, COFEBA created an unprecedented organisation of the site and of its production. As the harsh winter prevents any human activity in the mountains, the prefabrication plant is installed in the valley, along the motorway, at Magland. Operational in the summer of 1963, the facility includes a large hangar equipped with overhead cranes and mixers, as well as an annexed storage area. That's where the floors and the curtain panels are produced during the cold season, the two key components of the Barets system which constitute the essential elements of the construction.

A hundred types of different elements (cantilevered floor slabs, balcony-floor slabs, solid and lightened panels, frames for openings, etc.) are created with the help of extremely sophisticated vibrating moulds made of heavy steel sheet. Manufactured by SATECO (Société Africaine de Transport et d'Exploitation de Containers), which then began commercialising formwork and construction materials, they have removable and retractable parts which allow obtaining the maximum possible range of precast items. The latter's production is optimised by following an unusual procedure:

> In place of a hot mould, or of an étuvage (a heating process in a humid atmosphere), it is preferable to heat the concrete directly with the help of electric resistances, hooked to the frame construction according to a well-defined layout.[19]

Setting is considerably accelerated to the point that each series of elements cast in the afternoon can be removed from the mould the following morning. Besides being reusable several times, the metal moulds also have the advantage (or disadvantage) of giving a flawless finish to the concrete. As Breuer did not like having the surfaces too smooth, the metal moulds were irregularly etched, so that, paradoxically, when the piece was removed from the mould it took on the typical imprint of a woodworked formwork. This "false wood" effect ultimately moves Flaine's facades closer to those by La Gaude, whose panels were prefabricated with the traditional wood moulds made by the Nicoise company Thorrand.

After being stored over the winter, during the summer the elements are taken up to the so-called "top" factory by means of a "service cable" stretched over 3.5 km between the valley and the Arbaron, the hill overlooking Flaine, 1860 metres high. Here, the set of components required for

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19   P.-L. Debomy, *Flaine, nouvelle station de sports d'hiver*, in «Bâtir», n. 175, May 1969, p. 8.

one week's progress of the construction site is selected and deposited, with the help of a special trolley and of a tower crane; similarly, it is here that the buckets of cement and aggregates, hoisted by a cable car, are emptied into special hoppers. Although nothing is manufactured in the factory at the top, it is from here that all the products, processed or not, depart however, drawn by semi-trailers, to carry out the structural part of the resort.

Located three kilometres further down, the construction site offers a unique spectacle in the natural and grand surroundings where it is located. At the same time as the ski lifting systems are being built, so are the terraces and the foundations of the first buildings. These are conceived according to the same structural model and have a ground floor placed on *pilotis* (stilts), consisting of a powerful skeleton in reinforced concrete cast in situ. At the higher levels, the pillars give way to a succession of internal load-bearing walls in cast concrete on which the coffered ceilings of the Barets system rest. Left exposed, the coarse soffit which bears the marks of the formwork's disarmament is impressive, in harmony with the relief carved on the facade panels.

The latter are not set up later, between the panes, but are mounted in the same sequence as the walls and floors, floor by floor. Fixed against the edge beam and resting on the bottom panel whose profiles match perfectly, each facade element has lateral grooves which, juxtaposed to those of the element at its side, allow casting a small concrete pillar which ensures the junction is correctly fastened. A horizontal assemblage is then carried out in the upper part, in the space which is left over between the elements of the floor and those of the façade, in order to integrate the whole.

The thermal insulation and the inner lining of the panels consist of three-centimetre thick polystyrene foam panels, supplemented by a wall of particleboard panels nailed directly onto a wooden frame. The architect cleverly takes advantage of the relief elements to pass and conceal the insulated ducts which feed the radiators located in the masonry under the openings between the concrete and the internal finish. Finally, the climatic impediments and Breuer's will «to create a game of powerful lines in the facades' composition»[20] lead to adopting specifically designed windows and French windows. Equipped with double glazing, their frames made of doussie wood have strong sections which require the use of particularly sturdy metal joints to ensure a better seal against air and water.

Moreover, the construction site uses a certain number of technical devices which are new for the mountains, among which two are particularly representative of Flaine's avant-garde nature. The first concerns the distribution of fluids/utilities (water, gas, electricity, television, telephone),

20   *Ivi*, p. 11.

which takes place through a network of underground tunnels, which can be entirely visited, which supply the various buildings of the resort. The second is the choice of gas central heating, cheaper and more practical, whose installation was, at the time, the most important in all France. Positioned at the entrance of the resort, from the road the boiler displays its three enormous heat generators, required for the resort's life.

Begun in 1963 by the Boussiron company - which is awarded the construction of the Forum - in close collaboration with COFEBA, the works are brutally interrupted the following year. The impossibility for the Boissonnas group to obtain the land necessary for building the access road to the station in time, plus some temporary financial difficulties, lead it to leave the construction company and the technical studio. Construction of the buildings is only resumed in the summer of 1966, this time entrusted to the company Place, under the technical supervision of COTEBA (Coordination Technique du Bâtiment).

The Forum's completion, in 1973, marks the end of prefabrication in the valley, whose installation is accused of being too costly. In the meantime, the resort's access road is completed and nothing now stands in the way of transporting the materials by truck. That's why Flaine-Front de neige (1973-1976) and later Flaine-Forêt (1976-1988)[21] are built in a traditional manner, with an on-the-spot prefabrication reduced, at best, to only the facades. In spite of the criticisms addressed towards the prefabrication developed by Barets, it turns out, in retrospect, that the buildings made according to this method have the lowest construction cost per square metre[22].

Flaine's béton sculptural

What attracts the attention of observers - both laudatory or critical - shortly after the resort's opening, is the austerity of the rough concrete and the sculptural character of Flaine's facades[23]. These two aspects are for that matter inseparable, since the vigorous relief of the panels allows avoiding any surface treatment which is usually applied on prefabricated elements (plaster, *grès, mignonette*, glass paste, etc.). In a general way, during the sixties we witness an infatuation for modelling outer shells which, after the war, falls within the transfer of formal and structural concrete problems

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21 This third and final part of the resort was built by Breuer's Parisian studio, under the direction of his associate Robert Gatje.
22 F. BERLOTTIER, *Flaine*, cit., pp. 63-64 and attachment X.
23 See F. LOYER, *Flaine: chalets en béton*, in «L'Œil», n. 170, February 1969, pp. 18-23, 60.

towards their «outward appearance»[24]. A quick glance at international architectural magazines of the time is enough to realise the recurring presence of this theme. Where French architects do not escape this new concern, it increasingly demonstrates the discomfort of the profession in the face of the growing trivialisation of architecture and of the housing which these industrialised building methods were generating.

The issue is of such importance that in 1967 the Centre Scientifique et Technique du Bâtiment (CSTB) takes it over by organising, in Paris, a conference devoted to «relief in large precast concrete panels»[25]. Bringing together architects, artists, industrialists and technicians, including Jean Barets himself, the meeting has the ambition of studying the possibilities offered by the new casting techniques of large concrete elements in order «to make the appearance of the collective habitat more attractive»[26]. By becoming widespread, prefabrication had become the target of increasingly strong criticism, accused of generating monotony in ever-larger residential complexes. Visual experiments, in order to avoid this, were hitherto primarily concerned with the use of colours or coatings, rather than the use of reliefs in the strictest sense of the word. However, there had been various experiences in France in this field since the early sixties. The most significant are presented at the conference, such as the Sixte-Isnard (1958-1960) school complex in Avignon by architect Max Bourgoin, the Parisian housing tower in rue de Flandre (1960-1962), created by the Anger-Heymann-Puccinelli studio, or the Faculté des Sciences et des Lettres of Rennes (1960-1972), by Louis Arretche.

From a technical point of view, it is necessary to distinguish between reliefs produced by adding or subtracting material, by arranging cavities on the bottom of the mould or of prefabricated components (concrete inlays), and reliefs produced by the intrinsic geometry of the elements. While the former are the result of heavy prefabrication, the latter are similar to thin components, the polar opposite of the Camus or Coignet panel types. The thin ribbed shells of concrete produced according to Barets' system are in fact related more to the "maçonnerie profilée" [profiled masonry], used in France during the Reconstruction period, in the form of load-bearing moulded façade slabs of concrete (Mopin, Perrissin, Schoup, Sehm processes,

24   See R. Legault, *The Semantics of Exposed Concrete*, in J.-L. Cohen, G. Martin Moeller Jr (edited by), *Liquid Stone: New Architecture in Concrete*, Princeton Architectural Press, New York 2006, pp. 46-56.

25   See *Le colloque du CSTB sur le relief dans les grands panneaux de béton moulé*, in «Cahiers du Centre scientifique et technique du bâtiment», vol. 5, cahier 735, February 1967, pp. 1-12.

26   *Ivi.*, p. 1.

etc.)[27]. These elements, like the reversed "diamond point" in Flaine, may take on the most elaborate configurations, such as the enigmatic facades of the *Torin Corporation* factory (1963-1964) which Breuer built at the same time in Nivelles, Belgium, following the Schokbeton process[28]. Beyond wanting to renew the architectural language, Breuer views the volumetric shell as the multifunctional constructive entity par excellence:

> The large prefabricated panels can be designed to meet a variety of technical needs: they may or may not be load-bearing, they may offer ribs and cavities for pipes, equipment and air conditioning systems; they can form eaves for protection from the sun; they can have more or less large openings; they can combine all of these features.[29]

Skilfully used in Flaine, prefabrication is useful both in order to be free of all altitude limitations and to give rhythm to the resort's architecture, as well as to integrate the necessary services for the skiers' comfort. Similar considerations push Breuer to appeal once again to COFEBA to build the Sarget-Ambrine Pharmaceutical Laboratories (1965-1968) in Merignac, near Bordeaux, and the ZUP of Sainte-Croix (1964-1973) in Bayonne[30]. This connivance allows hypothesising an encounter between the formal obsessions of the American architect and the French savoir-faire in the field of prefabrication, a meeting which began in Flaine, and one which will not be without consequences in the work of one of the major protagonists of XX century architecture.

Between decline and patrimonialization

After having reached success, from the early nineties Flaine goes through a deep identity crisis. The withdrawal of the Boissonnas family and the takeover by private investors, the competition by new winter sports facilities, the remoteness of the site which makes it difficult to exploit in the summer, but above all its image of *grand ensemble à la montagne* - poles apart from the neo-regionalist architecture in fashion during the eighties, weigh on the station's future. The loss of the initial customers

27 See Y. Delemontey, *Reconstruire la France. L'aventure du béton assemblé, 1940-1955*, Editions de la Villette, Paris 2015.
28 See *Torrington Nivelles*, in «Architectural Record», n. 1, January 1965, pp. 153-155.
29 Marcel Breuer's words quoted in *The Faceted, Molded Facade: Depth, Sun and Shadow*, in «Architectural Record», n. 4, April 1966, p. 172.
30 On Marcel Breuer's creations in France, see D. Amouroux, *Marcel Breuer. Les réalisations françaises*, Editions du patrimoine/Centre des monuments nationaux, Paris 2014.

replaced by a new more popular type of customer, generates numerous transformations, such as the closure of high-class hotels to the benefit of tourist residences and club hotels which, together with various deficiencies in the maintenance, end up altering the original architecture. By way of example, the interiors gradually lose their characteristic nature and the original furniture is systematically replaced.

At the same time, thanks to its unique design and the reputation of its architect, however, Flaine acquires a financial recognition. In 1991, the Flaine hotel with its famous eave, as well as the annexed residence Betelgeuse, are listed with their registration in the "Inventaire supplémentaire des Monuments historiques". More recently, in December 2014, it is the turn of the ecumenical chapel, totally designed by Breuer, listed as a historical monument. Potentially, the entire architecture of the resort is protected nowadays, as the totality of Breuer's buildings received the "Label Patrimoine du XXe siècle", awarded by the Ministry of Culture in 2008.

In the early 2000s, the resort tries to reverse its process of decline, beginning a new development cycle evidenced by the intense and anarchic real estate business around and even in the very heart of the "historical Flaine". The great heterogeneity of these architectures, whether breaking away or continuing the tradition of the original buildings, shows, unfortunately, both the absence of clear urban planning choices and the difficulty of identifying them as a cultural asset. The example of the recent buildings within the Forum, an emblematic place, reveals this situation. This does not prevent noticing a healthy evolution, for example in treating and repairing the concrete, where later projects (the old Aujon hotel, the Betelgeuse residence) demonstrate a greater cultural awareness towards Breuer buildings.

The fact remains that Flaine today lacks an appropriate ambition compared with the one it had when it was created. This ambition can only be born when the question of its governance is defined, torn as it is between the differing interests of the municipalities who run it. More fundamentally, it is only by drawing upon its past that the resort can hope to re-establish a link with success, as its future is inseparable from its great cultural significance. We must gamble that, whoever is responsible, should understand the magnitude of the challenge and consider this value as a true asset.

On page 108
Fig. 1. Concrete fireplace in the *Le Flaine Hotel*'s hall. Centre culturel de Flaine ©

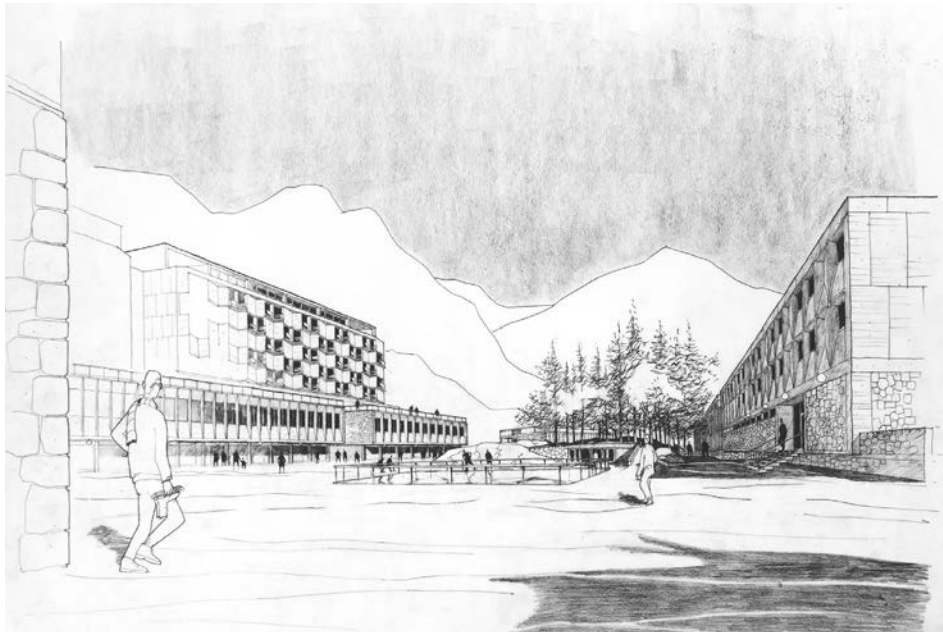Fig. 2. Flaine ski resort, Haute-Savoie, overview. Centre culturel de Flaine ©

Fig. 3. Pencil perspective drawing of the "Forum" by Marcel Breuer architects firm. Centre culturel de Flaine ©

Fig. 4. 1961 main characters. From left to right: Denis Pradelle, Laurent Chappis, Eric Boissonnas, Gérard Chervaz, Marcel Breuer and Fred Berlottier. Archives départementales de Haute-Savoie, fonds G. Chervaz, Annecy ©

Fig. 5. Overview of Flaine ski resort showing the sequence of three terraces.

Fig. 6. *Le Flaine Hotel* and its renowned jutting side suspended above the cliff

Fig. 7. Construction process of the *Aldébaran building*. Centre culturel de Flaine ©

Fig. 8. The cableway and the prefabrication yard in the valley floor.
Centre culturel de Flaine ©

Fig. 9. *Aldébaran building*. Detail of the main facade

Fig. 10. *Les Lindars hotel*. Detail of the main facade

Figg. 11-12. Excerpts from the commercial brochure distributed in December 1967 on the occasion of the inaugural opening of the station.

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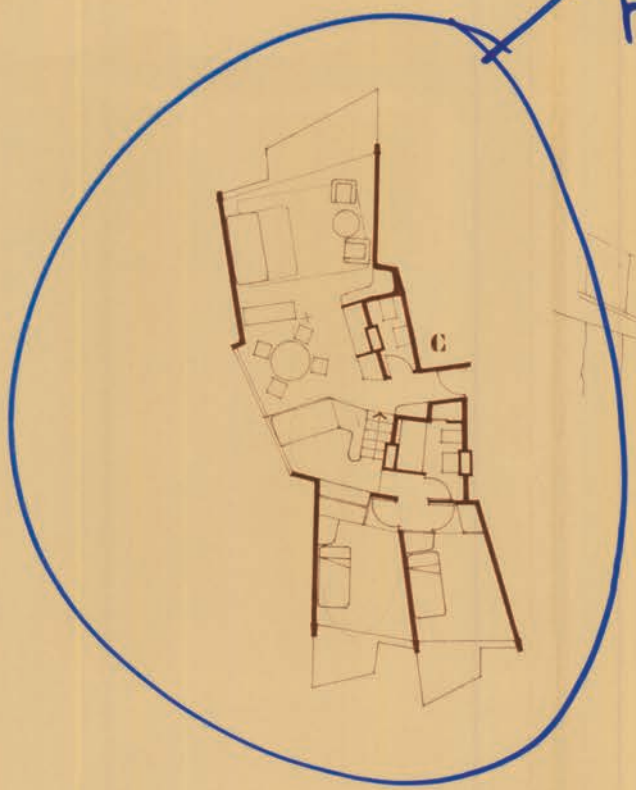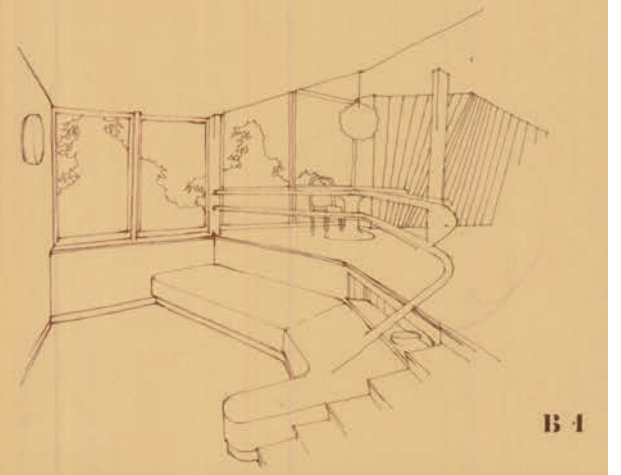
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The legacy of Laurent Chappis in the Susa Valley. Cultural heritage and new prospects for the Sansicario resort

Rosa Tamborrino

Laurent Chappis (Aix les-Bains 1915-Chambéry 2013) played a role in planning the Sansicario ski resort in the upper Susa Valley, in the Alps near Turin[1]. What is surprising, however, is the discovery – through his sketches and notes – of the scale, at different levels, of this French architect's design project. Based on new archive documentation, this paper focuses on a period of ten years, starting in 1970, when he worked there. It highlights how Chappis contributed ideas that concerned a much wider scope than merely the ski resort, as part of a grand scheme for the valley as a whole, a scheme that took into account its needs and resources.

The materials collected in Chappis's private archive, kept at the Centre d'Archives d'Architecture in Chambéry combined with those of the company that commissioned him and that have just been rediscovered thanks to the reorganisation following the acquisition of Sansicario's common areas by the Nonsoloneve Cooperative allow us to pursue new lines of research for studying Chappis's architectural designs[2].

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1   Cf. A. De Rossi, *Architettura Moderna Alpina in Piemonte e Valle d'Aosta*, Allemandi, Turin, 2005; M. A. Giusti, R. Tamborrino, *Guida all'Architettura del Novecento in Piemonte*, pp. 48-55, 208, Allemandi, Turin, 2008. Chappis actually collaborated with the architects Roger Berthe and Pierre Jomain. As regards these topics, cf. P. Revil, *L'Anarchitecte*, Guérin, Chamonix 2002.

2   We had announced the rediscovery of these documents. Cf. R. Tamborrino, *Digital History: reti fisiche e infrastrutture immateriali nelle trasformazioni nei territori montani* in «ArchAlp», 9, pp. 25-28. The Nonsoloneve cooperative was set up by property owners in the village of Sansicario http://www.coopnonsoloneve.org. For the private archive, cf. Centre d'Archives d'Architecture en Savoie, *Itinéraire Professionnel de Laurent Chappis, Architecte et Urbaniste de la Montagne (1946-2013)*, Assemblée des Pays de Savoie, 2013. See also L. Chappis, *Ma Montagne…du Rêve à la Réalité,* Fondation pour l'Action Culturelle Internationale en Montagne, 2003.

The final construction of the resort then followed other choices that led to the adoption of architectural solutions by other architects. Chappis's designs remained, for the most part, only on paper.

Nevertheless, the long and complicated sequence of events that binds this architect to Sansicario goes far beyond the construction of spaces and buildings. This article presents and analyses certain aspects of it, highlighting an approach to mountain-based design that takes into account a view of the whole by paying attention to the various different scales of a project. These views and strategies are extraordinarily modern and are still valid to today's world. They hark back to policies and practices that encourage reflection on possible future development. In the meantime, this bequest is in itself a cultural legacy and a factor fostering cohesion among the inhabitants of the area, something that is important for the relaunch of this tourist resort.

From 'flowering fields' to a plan for the 'vocation' of locations

The originator and director of the construction programme was Count Alessandro Pellion di Persano, who had been struck by the sun-drenched fields above the village of San Sicario, in the mountains above Cesana Torinese. He had convinced a group of Turin-based investors to construct a new ski circuit there. The flowering fields became a company – "Prati Fioriti s.r.l." – that contacted Chappis in 1970, who was well known for his innovative resorts[3].

The design project was the result of a long, continuous process that involved investigations carried out on site, surveys and first-hand explorations. For Chappis, it would seem that the issue was the same one he had tackled in Courchevel: constructing solely on green-field sites.

When the flowering fields turned into snow-covered slopes, he began to cross them on skis together with his commissioning clients, tracing ski routes. He would write down, day after day, the surveys and meetings on site that had taken place and repeatedly emphasised the need to verify and study slopes for downhill skiing, establishing the position of future ski lifts[4].

Right from the start, the network of ski routes was envisaged as a true infrastructure that would link a number of different localities. In 1972,

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3   The company set up by Count Persano to complete the project was called "Campi Fioriti" (which means "flowering fields") as he was inspired by this beautiful area. As well as Persano, Benazzo, Brignone, Bruno and Incisa were also involved in the company. The Chappis archive shows that he had also been consulted regarding the Sestriere ski resort in 1964.

4   The manuscript is kept in Chambéry at the Centre d'Archives d'Architecture en Savoie.

for example, he noted down in his papers how it would be a good idea to trace a route above the new resort linking it to Sestriere across the Fraiteve Mountain summit; he laid out the nursery slope and expanded the study of the area on the other slopes of Cesana, including the site of the Monti della Luna (The Moon Mountains) in the Claviere resort's ski circuit as far as the border with France:

> une piste de juntion depuis le sommet du teleski n. 2 sur Sestrière et d'une jonction skiable depuis le sommet de Fraitève sur le départ du teleski n. 2./ Reflexions sur la numerotations des pistes, Parcours de la piste 80, Etude pour une piste de skieurs debutants./Etude des Monts de la lune depuis Clavière et descente sur Cesana.[5]

He did not see the point of a ski lift from Cesana to the new resort and instead preferred a descent on the adjoining slope towards Pariol. The ski lift to Cesana is, instead, on the other slope, towards the Monti della Luna. Readers who are not familiar with these localities should know that the ski slopes and ski lifts were eventually laid out in precisely this way in the following years.

Right from his first meeting with the clients who commissioned the Sansicario resort, Chappis insisted that he couldn't limit himself to designing the resort. What was needed was «avoir une grande vision d'ensemble» [i.e. a wider view of the "big picture"][6]. He was to continue to insist on its importance in the changing appointments that had him working on the valley in different ways on several occasions. Little by little, opportunities arose for tackling a gradually expanding catchment area that, on one hand, extended as far as Salice d'Ulzio and Lago Nero and included Thures, Rhuilles, Sagna Longa and Autagne while, on the other, he arranged their *vocations* and developed *re-modelling plans*[7].

Careful to ensure that the new resort would be independent of Sestriere, the main ski resort in the region, he reconnected the little town of Cesana (where the new ski resort was located) to the area of old hamlets and villages by making Sansicario the focal point of an extraordinarily vast district[8].

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5   Chappis, ms, page 2477.
6   *Ibidem*.
7   His notes state: «…Examen du problème de l'agglomération de Cesana […]Desseinte sur Tabier avec la Mairie de Sauze d'Oulx[…]Etude de la vocation du site de Tablier[… Etude du parcours de Sagna Longa ai Monti della Luna[…]Dessente du Rio Nero […] Etude de rémodelation du Soleil Boeuf […]de Thures à Rhuilles …] telepheriqe du Clos de la Chapelle au Soleil Boeuf […] Roccia Rotonda […] a proposal for Autagne […] studies of the area between Cesana, La Coche and Clavière».
8   From his notes, an article published in the newspaper «La Stampa» seemed to confirm the inclination towards making Sansicario *une annexe* [an annexe] of Sestriere.

The result was a complex plan of tourist infrastructure that created an extensive network.

This approach led to the outlining of a large-scale strategic project for the boroughs of the upper Susa Valley. It was a project that developed in very unusual local political circumstances, with Count Persano acting as a town counsellor for the borough council of Cesana, who invited him to participate in council meetings and managed to involve nearby boroughs in future plans for the joint development of the ski district.

On 25th June 1973, Chappis wrote that he had prepared a proposal on a scale of 1:25,000: «le plan des vocations des sites de l'ensemble de Haute Val de Suse» [the plan for the "vocations of locations" in the upper Susa Valley as a whole]. The following year, those boroughs almost entrusted the plans for the entire upper valley to him.

An article in the local press entitled *War in the Upper Susa Valley* makes it clear that the decision was fiercely opposed. What was to shelve it for good was the lack of trust in a new kind of landscape planning tool, which was ahead of its time as it went beyond the fragmented view of each borough council's existing plans.

Chappis was to lose that battle right when his appointment to design the architectural plans for Sansicario was about to end, as his clients had chosen other architects from Turin for the final executive plan for building the Sansicario ski resort. Count Persano was to insist on leaving him in charge of the overall design project, despite misgivings and heated debate.

The plans for Sansicario

The studies Chappis carried out on the ski circuit had significant repercussions on his plans for the tourist resort. Starting from the ski routes, he went on to establish the best position for the resort; cablecars became hubs for connection and exchange in a network; next came the location of hotels and apartments along the complex contour lines. It was then, however, that he was asked to step aside and make room for someone else.

On 20th October 1972, he noted down: Persano has decided «de me cantonner dans le role d'urbaniste» [of limiting my role to that of a town planner] and so a period of clashes began against the architects hired to complete the project by designing the architectural plans[9]. Their sketches – and later the completed buildings – seemed entirely inadequate to him.

9   This was the architect Marinone, who then became associated with a group of other architects including Cattaneo and Viglietti. Ceretti, Derossi and Rosso also participated in a competitive bid for ideas.

In his opinion, their resort looked like a hospital and, what's more, they seemed incapable of taking into account differences in altitude, to the point where their sketches didn't even mention them: «comme toujours les projets…ne porte aucune côte altimetrique»[10].

In 1972, the company started building an apartment complex sleeping 80, planned to open by Christmas 1973. Chappis coordinated the landscape and town planning, but he didn't give up. In 1972, he put forward architectural proposals.

Nevertheless, Persano seems to have used him more as a consultant, despite himself. He insisted on meeting the Turin-based architects, despite continuing to write vehement notes and letters criticising them[11]. His observations regarding the plans for the ski lodge were used as the basis for significant alterations to the plans. The Turin-based group was forced to hand in a new design.

Persano also set up a meeting between Chappis and Vietti, who had been asked to put forward proposals for the *Clos de la Mais* locality near Sansicario[12]. During the meeting in Milan, which took place on 5-6th June 1973, Chappis threw out the proposal for a resort sleeping 9,500 people (his plan envisaged 5,000). Though recognising Vietti's considerable experience in designing resorts, a "talent" of his, he considered Vietti's to be an outdated approach[13].

It wasn't just the question of quantity that put them at odds with each other. It was more a case of the way they tackled places and the existing architecture of those places. On the one hand, there was a refusal to intensively exploit territories, on the other hand there was a reaction against *folkloristic* architecture.

The plans for Sansicario embody Chappis's approach. The ski lift stations are a symptomatic example of this, with their sinuous, futuristic shapes in reinforced concrete. The plans for the hotel complexes differ in the number of apartments per building and the type of apartments sleeping two, three or four people, addressing a diverse target audience of users.

The plans show that the buildings are not merely laid out along the slope (as the Turin-based architects were to construct them). The complexity of

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10   Chappis wrote: «Le problème d'une vie de station de neige n'a pas du tout eté assimilé par eux. Je compare leur proposition à un projet hopital». Chappis, ms., cit.
11   This correspondence is documented by a number of letters in the Nonsoloneve archive.
12   The architect Luigi Vietti was interested in carrying out construction work in the old hamlet of San Sicario. Vietti is well known as the Aga Khan's architect because of his designs for luxury real estate mostly in Costa Smeralda (Sardinia).
13   Chappis described the plans by Vietti as «dans un style folkloristique vieillot (…) n'étant basé que sur un vision du passé apprecié par sa clientele snob bourgeoise». Chappis, ms., cit.

the terrain and differing altitudes is used as a basis; it creates a range of shapes that take into account the lay of the land, constructing a composition of forms that are never repeated.

The hotel complexes therefore differ enormously one from the other, based on a far-from-banal complexity that only a three-dimensional reconstruction can truly convey[14]. What emerges is that complexity and deconstruction are based on the identification of elementary cells. The development of such cells along the contour lines produces constant changes in the eaves courses that form multi-faceted facades, with three-dimensional elements designed like rocks among rocks.

Tourist resorts that combine experimentation and a place's cultural legacy

While his resignation letter is dated 1978, his last notes on the tennis courts and pedestrian shopping mall are dated 1980. The issue of setting aside areas for pedestrians was an important one that he had already tackled in 1959 in Flaine, as a way of reducing noise and pollution, substituting cars with cablecars[15].

In the meantime, Chappis was asked to visit Italy on several occasions: in Bielmonte in 1975, then in Campitello. In the 1980s, the Italian delegation asked that he be involved as an expert in mountain town planning by the UN's World Tourism Organisation.

Nevertheless, it was in Sansicario that his ideas essentially became reality, in different architectural forms, perhaps because those radical lines of his may have discouraged Turin's bourgeoisie. In the end, the features that have stood the test of time are the infrastructure and network, while the unusual nature of a particular history unites the property owners of a resort that is suffering the effects of an economic crisis.

As regards the rest, a body of documents survives that is interesting as regards typological studies, macrostructures that limit land consumption, experimentation into shapes and images that toy with the views that were

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14   We find proof of this in the analysis carried out in a degree thesis that studies one of
      these designs by modelling the site and then the proposed solution in 3-D. Cf. A. Gob-
      bi, *Laurent Chappis a Sansicario Alto,* degree thesis, supervisor: professor R. Tambor-
      rino, with professors F. Rinaudo and P. Piumatti acting as assistant supervisors. In
      addition, A. Gobbi *Laurent Chappis a Sansicario Alto. Studio per un archivio digitale
      e ricostruzione storica delle ipotesi di progetto e dei contesti culturali* in «ArchAlp», n.
      10, pp. 95-96.
15   In 1959, he had attempted to involve an international pool of architects, consisting
      of Le Corbusier, Alva Aalto, Philip Johnson, Walter Gropius, Louis Kahn and Marcel
      Breuer, in Flaine with a view to creating a ski resort prototype. He withdrew from the
      project when Breuer was the one commissioned to complete it in 1961.

held during that period: tourist apartments as temporary accommodation, consistent with the attitudes of a generation that imagined houses that could be "moved" and inflatable structures that were also based on the study of separate cells.

Chappis's cell-units create macrostructures consisting of sections that detach from the main nucleus in order to follow the mountainside's natural shape. The roofs link and follow, delineating and incorporating the residential floors. While cultural tools and concepts may have been shared, designing in the Alps is a specification that forces forms and types of settlement to adopt the meaning of a choice. In short, Chappis's designs are as futuristic as they are rooted in the lay of the land. The brutalism of this architecture, which adopts spacecraft-like shapes, is in actual fact concerned with remaining inextricably linked to the mountains and their nature.

On page 128
Fig. 1. Berthe, Chappis, Jomain Architectes D.P.L.G., Study 3 Lits, *étude d'aménagement*, 15th June 1971, layout study for the Sansicario ski resort with notes in ink, detail, Nonsoloneve Archive, Sansicario

Fig. 2. Berthe, Chappis, Jomain Architectes D.P.L.G., *San Sicario Clos de la Chappelle esquisse, Residence para-hotelier,* Chambéry 1st July 1971, sketch for the Sansicario ski resort's preliminary project proposal, Nonsoloneve Archive, Sansicario

Fig. 3. Berthe, Chappis, Jomain Architectes D.P.L.G., *San Sicario Clos de la Chappelle esquisse, Residence para-hotelier plan niveau 3*, Tav. 7, Chambéry 1st July 1971, Archivio Nonsoloneve, Sansicario

Fig. 4. L. Chappis, *Sketch of the Sansicario ski resort's cablecar station*, Nonsoloneve Archive, Sansicario
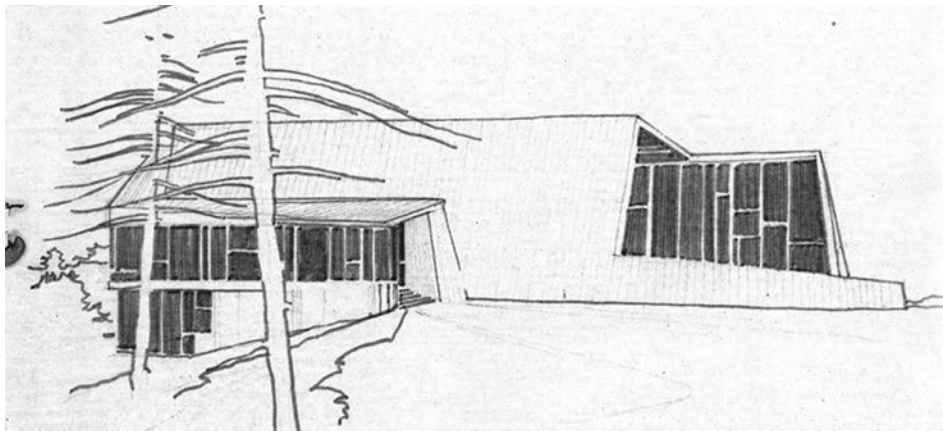
Fig. 5. L. Chappis, *Perspective view of the Sansicario ski resort,* 15th May 1971, Nonsoloneve Archive, Sansicario
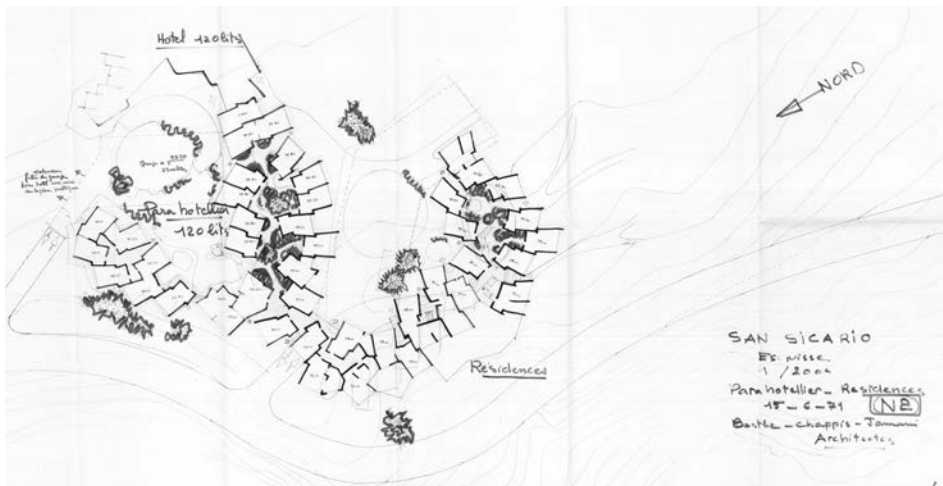
Fig. 6. Chappis, Barthe, Jomain Architectes, *San Sicario, Esquisse 1:2000 Parahotellier-Residances*, 15th June 1971, sketch for the Sansicario ski resort, Nonsoloneve Archive, Sansicario

The disenchanted mountain's Heritage.
Protection and reuse of sanatoriums in the Alps
Davide Del Curto

Sanatorium architecture is a *glocal* issue just like the disease which created it, *modern* because of the role it played in the transition from historicism to functionalism[1], *environmental* because of the therapies which were carried out there, based on the trust in "healthy places" and *social* because the pursuit of those places, often idealised, rested on criticism towards the industrial and alienating development model.

This text proposes a survey on the current condition and use of the former sanatoriums in the Alps, now on the edge between their heritage status and abandonment. I will compare some recent international reuse and protection experiences, focusing on the elements useful to enhance this legacy that the twentieth century has left in the Alps and assessing the chances it may contribute to local development.

Climate and sanatoriums: from the myth of the cave to the magic mountain

In 1839, Dr John Croghan from Louisville bought the Mammoth Cave in the heart of the U.S.A. The Cave is the largest natural cavity of the Planet, still largely unexplored. Croghan set up a primitive sanatorium to cure *consumptives* thanks to the cave's pure and stable air. He tested the treatment

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1   M. Campbell, *Strange bedfellows: modernism and tuberculosis*, in G. Borasi, M. Zardini (eds.) *Imperfect health. The medicalization of architecture*, Canadian Centre for Architecture, Lars Muller Pulishers, 2012, pp. 133-151.

on several patients until 1845, but, despite his best efforts, they all died[2].

The idea of exposing the consumptives to a climate which encouraged healing was already widespread in the mid-eighten century, although which climate was best remained uncertain for a long time, as is shown by the ambiguous American prologue. The cool and stable climate of underground locations had always been used to slow down the decay of food and organic items[3]. During the Second World War, it also proved to be an excellent choice for works of art, which when hidden in air-raid shelters for a long time were preserved better than in museums, so much so that the climate conservation standards still in use today were established in the aftermath of that experience[4]. During the mid-eighten century, the focus was extended from hygroscopic materials to bodies, from underground to high altitude, where dry, stable air could be found, with that purity we now define as with a low concentration of contaminants and that since then, we have associated with a primitive environment far away from modern fumes.

Colonising the mountain in order to exploit these air properties for therapeutic purposes is known to the history of medicine as well as to the history of architecture, which has finally identified sanatoriums as a laboratory for design experimentation, in the transition between historicism and modernity. In 1992, the exhibition "Le sanatorium: architecture d'un isolement sublime. Exemples des Grisons"[5] began the discovery of sanatorium architecture, both from a historical point of view and from the point of view of conservation. This was followed by monographs devoted to European countries[6] and synthesis attempts to outline an international network[7] or

2   P. West, *Trying the Dark: Mammoth Cave and the Racial Imagination, 1839-1869,* in «Southern Spaces», February 9th, 2010.

3   G. C. Leuch, *Del modo di conservare le sostanze ossia regole e processi basati sull'esperienza e sui principii più incontrastabili onde prevenire la corruzione e ritardare la distruzione di qualunque sostanza animale e vegetabile ecc.*, Italian version with additions and footnote by Dr. Ercole Terzaghi, and an *appendice sui mezzi di conservare la salute e prolungare la vita*, Placido Maria Visaj, Milano, 1835, in particular book III – *Luoghi di deposito atti alla conservazione delle sostanze,* pp. 313-329.

4   A. Luciani, *Towards a history of conservation environments. Historical perspectives on climate control strategies within museums and heritage buildings,* PoliMI Springer Briefs, Milano 2016 (in print).

5   Q. Miller, *Le sanatorium: architecture d'un isolement sublime,* EPFL - Département d'Architecture, 1992.

6   A. Tavares, *Arquitectura Antituberculose. Trocas e tráficos na construção terapêutica entre Portugal e Suíça*, Faup-publicações, Porto, 2005; J.-B. Cremnitzer, *Architecture et santé. Le temps du sanatorium en France et en Europe*, Ed. Picard, Paris, 2005, D. Del Curto, *Il sanatorio alpino. Architetture per la cura della tubercolosi dall'Europa alla Valtellina,* Aracne, Roma, 2010; P. Grandvoinnet, *Architecture thérapeutique, histoire des sanatoriums en France (1900-1945),* Metispresse, Genève 2014.

7   *Les «Quinze glorieuses de l'architecture sanatoriale». Programme phare du mouvement moderne*, acts du Rencontres d'Assy du 15.6 au 30.9 2006, édition dirigée par le

focusing on buildings which were icons within the history of architecture and on their restoration issues[8]. Sanatoriums had already been involved in international research projects concerning alpine sceneries or medicine[9]. There is though a void from an architectural point of view, which pieces together the experiences already carried out in Europe and which is capable of joining the creation of an inventory with the monitoring of the already restored and transformed sanatoriums, focusing on the issues posed to designers when treating this difficult legacy.

The buildings created in that short period are mostly still misunderstood, neglected or abandoned and the time is ripe to assess their condition. From the cult of the sanatorium memory[10], to the disheartening demolition of the Sanatorium Argentina at Arco in Trento, from the operational difficulties of the Pra Catinat cooperative, to the controversial transformation into an "anti-ageing resort" of the sanatorium of Agra[11], up to the experiments of valorisation currently underway in Valtellina, it is hard to promote former sanatoriums to the rank of Alpine heritage, i.e. to that part of the XXth century heritage which deserves being protected and is susceptible to enhancement. However, in recent years, a certain number of recoveries/restorations/regenerations, although performed with heterogeneous ways and purposes, has had the merit of breaking this impasse. Before analysing some examples in the Alps, summarising the situation of this heritage is advisable. Scholars have already put forward proposals to classify the buildings built to treat tuberculosis, of which sanatoriums are only a part. Most of these, either undergoing restoration or waiting for protection, urban or alpine, can be classified within three types: sanatoriums as icons of modern architecture, standard sanatoriums[12] and sanatorium cities[13].

Centre de Recherche et d'Etude sur l'Historire d'Assy (C.R.E.H.A), Passy 2006.

8   J.-B. Cremnitzer, B. Toulier (eds), *Histoire et Réhabilitation des Sanatoriums en Europe,* Docomomo Handbooks 2008; P. Meurs, M.-T. van Thoor (eds), *Sanatorium Zonnestraal. History and restoration of a modern monument*, NAi Publishers, Rotterdam 2010.

9   *Le bon air des Alpes,* themed issue of the «Revue de géographie alpine», t. 93, n. 1, 2005, in particular D. Luthi, *L'influence du bon air sur l'architecture. Une 'guérison formelle'? Apparition du sanatorium alpin en Suisse 1880-1914*, pp. 43-52.

10   B. Carmellini (with the collaboration of S. Maino), *Il tempo dei sanatori ad Arco (1945-1975),* Museo storico in Trento, Trento 2005.

11   E. Fuselli, L. Bucher, P. Costantini, *Agra 1914–1918. Il respiro del sanatorio,* «I Quaderni della Collina d'Oro», n. 1, Edizioni Fondazione culturale Collina d'Oro, in collaboration with Giampiero Casagrande editore, Collina d'Oro, 2009.

12   F. Cogliati, *Architetture per la cura della tubercolosi in Italia (1900-1940). Censimento, catalogazione, tutela,* Politecnico di Milano, degree thesis in architecture discussed on 2nd October 2013, supervisor D. Del Curto.

13   D. Vaj, *Respirare l'aria pura delle Alpi. Dalla Svizzera all'Italia: lo sviluppo delle stazioni di cura montane,* in L. Bonesio, D. Del Curto (edited by), *Il Villaggio Morelli.*

Icons of modern architecture

Paimio and Zonnestraal are among the few carefully preserved and restored former sanatoriums, destined to a form of adaptive reuse. The process that led to the valorisation of these buildings was based on their architectural quality and on an early recognition among the icons of modern architecture, together with their ability to bear witness to a key period of recent European history, when the cure of tuberculosis in sanatoriums supported the creation of the welfare state.

Much has already been written concerning Zonnestraal's restoration-manifesto, while it is worth mentioning a few aspects concerning Paimio's conservation, carried out with technological and architectural cutting-edge improvements initially designed by Aalto, such as the glazing of the wing once used as a solarium. The chronology of these changes is philologically documented in the UNESCO[14] application file, where it is suggested that the organic architecture at base of the original design, has shaped also subsequent transformations of this famous building. Paimio's sanatorium enjoyed an extraordinary critical fortune from the moment of its construction and this is why, when it no longer had the function of a sanatorium, its conservation was already sitting on the table where the change was being planned. A sanatorium room with its famous furniture has been preserved as a museum, while the spatial and sensory qualities of Aalto's design have been enhanced in the new hospital layout, with architectural quality "philological" solutions[15]. The success of this building, moreover, is not only given by the modernist composition and attention to detail, but also by its design skilfully inserting it in the heart of the pine forest which interprets the Scandinavian desire for contact with the magic of the forest and with the great spaces of northern landscapes. The fact that this construction is considered a national monument and has been preserved and used, is due to its ability to transfer this collective feeling into the healthcare building.

      Identità Paesaggistica e patrimonio monumentale, Diabasis, Reggio Emilia 2011, pp. 149-170.

14   M. Ehrström, S. Jetsonen, T. Lindh, M. Schalin, M. Schalin, *Nomination of Paimio Hospital for inclusion in the World Heritage List*, National Board of Antiquities, Helsinki 2005, pp. 28, 44.

15   J. Malmberg, *Obsolescence and Future of Paimio Sanatorium (1929-1933) by Alvar Aalto*, A. Tostões, Z. Ferreira (eds.), *Adaptive Reuse. The Modern Movement Toards the Future*, Proceedings of the 14th International docomomo conference 6-9 September 2016 - Lisbon, docomo International - Casa da Arquitectura, Lisbona 2016, pp. 509-515.

The twentieth century standard heritage

Next to famous historical architecture textbook buildings restored with the support of specific research and funding, there is a vast wealth of common sanatoriums, built at the same time as their most famous counterparts, often with a high level of design and construction quality. In Italy, they were mainly built by the Italian Agency for National Insurance (I.N.P.S.) in each regional capital, beginning in 1928 and thanks to the compulsory insurance revenue. Where not abandoned or underutilised, these buildings offer an initial catalogue of transformations and reuses, from healthcare improvements to assisted or tourist accommodation, from education to other administrative functions:

 - renovated healthcare use towards leading specialisations, such as the former sanatorium of Montecatone d'Imola in Italy which has been transformed into a rehabilitation centre for seriously traumatised patients or, the Barner sanatorium in Hartz which has been converted to a clinic for treating *burn out* syndromes;

 - long-term nursing homes (L.N.H.) in the sanatoriums "Abetina" in Sondalo or "P. Grocco" in Perugia;

 - houses, as in the former sanatorium "A. Sclavo" in Siena;

 - accommodation facilities, as in the sanatorium "Guebriant" at Plateau d'Assy in France or hotels, as in Venice, where the sanatorium on the Sacca Sessola island houses a five-stars hotel;

 - accommodation facilities integrated by a training proposal such as the sanatorium Agnelli at Prà Catinat;

 - training, as the venue for colleges such as the one in Clermont-Ferrand, where the Sabourin hospital-sanatorium hosts l'École Nationale Superieure, the "Mesiano" sanatorium in Trento, home to the Faculty of Engineering or in Trieste, where the former "Santorio" sanatorium has housed the International School for Advanced Studies since 2010;

 - tertiary functions in the public sector such as the law court in Arezzo or the administrative wing of a medical centre such as in Sondrio and Taranto.

This short itinerary shows that sanatoriums have stood up well to the demand for change, both from an architectural and a construction point of view, when this was undertaken. Their non-restoration does not appear to be caused so much by the buildings' inherent difficulties in supporting renovations, but to political-administrative reasons connected, for example, to the way of leaving from the restrictions of the former healthcare use.

It should also be remembered that the gardens which once served to isolate contagious patients, today represent a specific item of value for these buildings. In fact, they still contain a great variety of trees which were

originally chosen to support the therapy[16]. Moreover, these gardens have preserved both the value of the architectural heritage both the public green area from the grip of speculation over the years, particularly in denser urban environments such as in Lecce, Ragusa, Verona. Another major issue is that of sanatorium cities, i.e. those large complexes of more than half a million cubic metres each, where the typical pavilion with treatment rooms and verandas is repeated in different architectural compositions: in order to isolate contagious patients near big cities like Rome's Centro Forlani and Milan's Vittorio Emanuele III sanatorium in Garbagnate Milanese[17] or for high-altitude long-term care such as the Sanatorium Village of Sondalo.

Sanatorium cities in the Alps: the dis-enchanted mountain

On the plain, sanatoriums were built close to major population centres, on the basis of a public health logic and of territorial defence against infection. In the mountains instead, they were built as therapeutic resorts where to offer climate benefits to sick people who lived in cities and on the plains. The choice of the location was preceded by lengthy observations to identify those slopes with the best weather conditions for the therapy[18] and the local communities most prone to welcome the sick. Thus, valleys with a dry, sunny and moderately ventilated climate were chosen, where the population was quickly persuaded to overcome its instinctive fear of contagion, sensing that the tuberculosis industry would represent a development opportunity[19] for remote or inland areas, which in Italy still receive specific support from the State.

Thus, "sanatorium cities" in the Alps were born as concentrations of buildings for healthcare. They produced a sudden and irreversible transformation of the contexts and of the communities where they were created, anticipating what happened to the alpine recreational and ski towns[20] by half a century. This process occurred by integrating the new

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16   *Du jardin au paysage, le végétal dans l'architecture du XX° siècle*, exposition à la Cité de l'Architecture et du Patrimoine, Palais de Chaillot, Paris 23.3.-24.6.2011.

17   S. Mazza, S. Restelli, *RI-GENERARE. Grandi complessi sanatoriali a Milano e Roma*, Politecnico di Milano, degree thesis in architecture discussed on 26th April 2016, supervisor D. Del Curto.

18   F. Eredia, *Le condizioni meteorologiche di alcune località montuose della penisola e delle regioni prealpine a fini sanatoriali (Villaggio sanatoriale di Sondalo dell'I.N.F.P.S. Osservatorio meteorologico)*, Tipografia Panetto & Petrelli, Spoleto 1942.

19   *L'air et l'argent: une combination fructueuse a l'origine de la station medicale d'Arcacon*, in «Bulletin de la Société Historique et Archéologique d'Arcachon et du Pays de Buchn», n. 91, 1er trimestre 1997, pp. 5-7.

20   See the contribution of Y. Delemonthey and C. Franco in this volume.

tuberculosis industry with the existing tissue, as in Davos, or by placing a new settlement for the treatment and isolation of consumptives which integrated with the existing built-up area only after a long time or which never integrated at all, as in Sondalo. Other locations, such as St. Moritz, began a development as care resorts, but quickly strove to erase the image of that early period in order not to harm the new-born perspective of elite mountain tourism[21].

The long sanatorium timespan in Davos was not removed to make way for its new tourist identity. It has already been remarked upon how this bonding contributed to intersecting modernity and tradition in construction, where the architectural sanatorium elements contaminated the mountain buildings, producing interesting episodes of proto-modernisation of the *Alpen stijl*, as in the *chalets* rented to chronic patients who left the sanatorium, whilst continuing to stay at high altitude. Iron and cast iron verandas, large windows with shutters, deck chairs and furniture were added to traditional buildings, following the eighteen century fashion for the industrial *chalet*[22], with specifically designed versions for consumptives such as the *Maison-type* designed around 1900 by architect Marcel Ormières in Arcachon[23].

In Davos, the memory of tuberculosis and its care is entrusted to the medical-historical museum, and moreover to the presence of former sanatoriums transformed into hotels, where the alpine culture of hospitality and the daily administration of sun and fresh air is once again renewed. An overview of the former sanatoriums in Davos may be found in the INSA[24] inventory and on this basis, the Medizinmuseum has compiled an interesting synopsis which compares the condition of sanatoriums in 1946-1960-1975-2000-2005[25]. The famous Schatzalp reopened as a hotel in 1954, just one year after the sanatorium closed, presenting itself as renewed whilst ensuring continuity. The Waldhotel was also transformed into a comfortable hotel and connected to the Schatzalp by a trail named to Thomas Mann. The memory of these treatments has not been removed from these

21 D. Luthi, *Le Bon Air des Alpes. Des stations climatiques au tourisme de bien-être*, actes du colloque de Sierre, 7-8.10.2004, Sierre, Valais 2007.

22 M. Campbell, *What tubercolosis did for modernism. The influence of a curative environment on modernist design and architecture*, in «Medical History» 49, 2005, pp. 463-488.

23 J.-B. Cremnitzer, *Le «home-sanatorium», esquisse ou modele du confort moderne,* in *Les «Quinze glorieuses de l'architecture sanatoriale»,* op. cit., pp. 12-15.

24 G. Germann, H. Rebsamen, J. Gubler, W. Stutz, *Inventar der neueren Schweizer Architektur 1850 – 1920, INSA 3: Biel, La Chaux-de-Fonds, Chur, Davos,* Gesellschaft für Schweizerische Kunstgeschichte, Bern 1982.

25 *hicksal der sanatorien,* in P. Flury, *Tuberkulose. Verlauf, Diagnostik und Therapie*, p. 17, see www.medizinmuseum-davos.ch.

facilities, but is exhibited in the name of the refined atmospheres and cos-mopolitan society of the early twentieth century. Such an environment has recently been appreciated by the film industry also, so much so that direc-tor Paolo Sorrentino used Schatzalp as the set for the movie *Youth – La Giovinezza*. The movie was presented at the Cannes Film Festival in 2015, thus contributing, via the evocative power of images, to promote the image of the sanatorium, not only to the field of cultural heritage, but also to the category of seductive places. Where this memory is a new small piece for the Swiss *Heimatschutz*, it testifies how that experience led to the deve-lopment and early internationalisation of those valleys. Similarly, the en-counter between the polytechnic education of the designers and the Alpine landscape has given a crucial contribution to Swiss architectural history, between nationalism and internationalism[26].

The preservation and transformation of the buildings is only one aspect of Davos' regeneration as a sports and mountain tourism location, where the experience gained in therapy and assistance was treasured. The Zürcher Rehazentrum Wald results of enlarging the Clavadel sanatorium designed by Rudolf Gaberel in 1932 and the Hochgebirgsklinik derives from the for-mer German sanatorium in Davos Wolfgang. They both have been turned into clinics specialising in the treatment of respiratory diseases and aller-gies. This way, Davos has opened up to mountain tourism and has retained its climatic identity, which is offered in the former sanatoriums converted into hotels or in appropriately specialised clinics, thanks to the renewed reception capacity by the community which has worked there for three generations[27].

During the 1930s, two alpine resorts grew to the size of a sanatorium city: on the Monte di Sortenna of Sondalo in Valtellina, and on the Plateau d'Assy in Haute-Savoie. We are talking of prematurely dis-enchanted[28] mountains here, because they were conceived with the purpose of extending the benefits of high-altitude care to National Insurance patients and not just to the wealthy of the *belle époque*. The events concerning the buildings which were constructed here are examples of the on-going regeneration processes of the former sanatoriums positioned in the Alps.

26 J. Gubler, *Nazionalismo e internazionalismo nell'architettura moderna in Svizzera*, Italian transl. by F. De Pieri, Mendrisio Academy Press/Silvana Editoriale, Milano 2012.

27 P. Oltermann, *Davos clinic may take its last breath as haven for allergy sufferers*, «The Guardian», 25 December 2013.

28 W. Schivelbusch, *Disenchanted Night. The Industrialization of Light in the 19th Century*, English version by A. Davies, University of California Press, Berkeley and Los Angeles 1995. First published as *Lichtblicke: Zur Geschichte der künstlichen Helligkeit im 19. Jahrhundert*, Carl Hanser Verlag, Munchen-Wien 1983.

They are proving adaptable to this new function no less than the other types, although designed with a specific therapeutic purpose. A culture of historical and architectural value has been created around some of these and this recognition has been crucial in order to support their preservation and regeneration.

Martel de Janville: heritage for the development of the Alps

The former Martel de Janville sanatorium is a masterpiece of modern architecture which enjoys a magnificent location between the coniferous forest and the high rock wall of the Plateau d'Assy, offering superb views of the Mont Blanc massif. It is well worth summarising this building's long journey from a manifesto of therapeutic modernism to a recently transformed residential complex.

The sanatorium was built between 1932 and 1937 by the Association des Villages Sanatoriums de Haute Altitude (AVSHA), on the initiative of the French Ministry of War and thanks to a donation by Sybille Righetti, Countess Martel de Janville. Pol Abraham and Henry Jacques Le Même's project presented innovative compositional and constructive choices, the result of the experience gained during previous assignments for the neighbouring sanatoriums of Plaine-Joux (1928, unimplemented), Roc des Fiz (1929) and Guébriant (1931) and it enjoyed a widespread critical success in France and abroad since it was under construction[29]. It was a military sanatorium, where the usual separation of patients by gender was replaced by that of rank, with petty officers and officers housed in two wings of the building and the latter given a slightly larger room. A pair of single rooms formed the typical unit which, in turn, determined the layout of the standard floor. The two rooms shared the veranda for air therapy and the sequence of large windows and metal railings determined the modern texture of its façade which stands out against the dark backdrop of the fir trees in the black and white vintage photographs.

In the seventies, the sanatorium was transformed into the "Centre médical Martel de Janville" for elderly and long-term care which operated until 2006. Since 2008 it has been registered in the inventory of the French *Monuments historiques*.

The restoration of the building was completed in 2015, and it was transformed into a residence of 98 flats. The rooms have been united to obtain two, three and four-rooms flats lined up along the façade towards the valley. The economic sustainability of this 10,000 square metre and 14 million

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29   available on www.archi.fr/DOCOMOMO-FR/fiche-sanatorium-martel.htm.

euro[30] intervention rests on the tax advantage enjoyed by the operator - and consequently by those who buy the flats - as the building is a *Monument historique* and the expenses for its preservation and restoration are subject to substantial tax benefits. This is why the Residence Martel de Janville is offered as a form of privileged estate investment, like historic buildings, castles and former monasteries, all recovered by benefiting from the tax exemption.

From an architectural point of view, Marc Rolinet's project leans more towards renewal rather than conservation: internal layout, materials, finishes and fixtures are newly designed, also because Abraham and Le Même's building was compromised after seventy years of healthcare use. Some of the original elements, such as the panoramic garden in front of the building, the entrance hallways and the staircases together with the doors and windows, floors and walls have been preserved and integrated into the new functional layout. This is clearly a choice agreed with the Office of Protection which not only sees a historical and cultural value in the design and finishes of the 1930s, but also a valuable element, rather than an obstacle, useful to promote the commercial *appeal* of the new residential building. In fact, the watercolour perspectives of these interiors are prominently displayed in the real estate agents' advertisements, right next to the plans of the flats for sale. The chapel decorated by Angel Zarraga has also been restored and proposed as a monumental facility for the new residence, while the beautiful space of the dining room, with reinforced concrete arches on view was unfortunately divided to obtain medium-large and duplex flats. The interior refurbishment has only partly preserved the spatial qualities of the original project (after the furniture designed by Jean Prouvé had already been lost) while the original orange colour of the façade was restored. This follows the settlement concept at the basis of the modern sanatorium project, i.e., the possibility of living the mountain and of enjoying its treasures, not necessarily inside a *chalet* of dubious authenticity, but in a large collective building. Its very modern and non-camouflaged shape stands out among the foliage of the fir trees with its tall chimney, the sequence of gleaming balconies and, of course, the beautiful orange colour which, as landscape painters know, completes the alpine palette along with the dark green of the conifers, the grey-brown of the rock, the blue-white shades of the glaciers and the turquoise sky.

Martel de Janville demonstrates that even for former sanatoriums, the

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30 available on www.rolinet.fr/projets/habitat/reconversion-du-sanatorium-martel-de-janville.

recognition of their cultural value[31] and the protection system is not at odds with a real estate development program, as this would limit the possibilities for transformation and expansion. This idea belongs to an logic which does not take into account the contemporary scenario dominated by *sprawling* and *shrinking cities*, where simply building is no longer of any use, but building well and redeveloping what has already been built is required. The flats obtained in the former protected sanatorium have been sold even though the housing market is not very lively, thanks to the panoramic position, the innovative typologies and furnishings, the purchase tax system, the economic management of a collective building, and maybe even because of the pleasure of living in a twentieth century masterpiece.

The valorisation of this building was accomplished after passionate studies investigated the architectural, landscape and aesthetic qualities. First the specialists, then the general public substituted the image of a difficult problem, such as an abandoned sanatorium, with an opportunity to be seized, i.e. a fine example of modern architecture "on hold". This shared perception of the cultural value was followed by the protection status and the tax exemption of the restoration, which would otherwise not have been feasible as a business, as demonstrated by the failure of a previous attempt in 2007, when the building was not yet protected.

In Martel's case, the heritage status has therefore provided the concrete conditions for the re – settlement of the now disenchanted mountain which, without this monument, would have been abandoned by health-care institutions, hotel industries or any other speculative attempt for that matter. Even in the Alps there is no development without the awareness of the value of what has been inherited and a strong partnership between the various operators involved is required to give substance to the couplet "conservation and development".

Sondalo: missed opportunities and an uncertain future, which hinges on culture

The path which leads a building from abandoned to heritage status and to the regeneration process, generally begins with its rediscovery by a group of intellectuals and enthusiasts which studies and highlights its qualities and which initiates a first reuse for cultural, educational, promotional purposes. Thus, a former factory, barracks, psychiatric hospital, sanatorium,

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31 P. GRANDVOINNET, *Sanatorium Martel de Janville,* Mémoire de DEA, Institut d'Architecture de l'Université de Genève, 3e cycle sauvegarde du patrimoine bâti et contemporaine, nov. 2004.

emerges a little at a time from its state of abandonment, once the activity for which it was conceived ends. A motion of interest, even commercial, arises as occurred in urban regeneration processes in the aftermath of de-industrialisation, like in the Docks of London or of political stabilisation such as in the emergent neighbourhoods in the capitals of Eastern Europe. Thanks to reactivation projects based on variously understood cultural activities, even post-production or post-healthcare marginal areas see a re-kindling of interest which leads to their assets and areas appreciating. It is the so-called policy of *cultural quarters*[32], according to which the activities related to culture may play a pioneering role in the redemption process of derelict or abandoned areas, so much so as to be supported by the third sector economy as engines of local development. In these projects, culture contributes to updating the point of view concerning places and buildings and demonstrates how suited they are to beginning a new life. Among the sanatoriums, it is worth remembering the Czechoslovak case of Machnáč, built according to a project by Jaromír Krejcar between 1930 and 1932 and recently discovered by the *opustená (re)kreátia* [abandoned (re)creation] group and placed in the Czechoslovak register of modern architecture[33]. In the Alps, there is no shortage of positive experiences such as that of the Dolomiti Contemporanee[34]. This is the same path which was undertaken on the basis of studies which described the social and landscape qualities of the small enchanted mountain of Sondalo in the early 2000s and which highlighted its role in the history of medicine and architecture[35]. The journey continued with cultural activities involving the local community which have been taking place since 2010 within the Village and with the restoration of the central reception building, turned into a museum dedicated to the treatment of tuberculosis and to the history of its therapies[36].

The sunny valley of Sondalo shows an exemplary concentration of sanatoriums that through the architectural evolution, from regionalist art nouveau to State rationalism, recounts the social history of the disease, from "consumption" to welfare. The sanatorium season lasted less than a

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32   M. Legnér, D. Ponzini, *Cultural Quarters and Urban Transformation: International Perspective*s, Högskolan på Gotland/Gotlandica förlag, Visby och Klintehamn 2009.

33   K. Teige, *Prace Jaromira Krejcara: monographie staveb a projektu*, Nakladatel Vaclav Petr, Praha 1933.

34   see Gianluca d'Inca Levis' contribution in this book.

35   For a complete bibliography concerning the Sondalo complex, please refer to D. Del Curto, *Conservare l'architettura del XX secolo. Esperienze di tutela e riuso al Villaggio di Sondalo*, in L. Bonesio, D. Del Curto, G. Menini (edited by) *Una questione di paesaggio. Il Villaggio Morelli e la Valtellina*, Mimesis Edizioni, Milano – Udine 2014, pp. 85-111.

36   D. Del Curto, G. Menini, *Museo dei sanatori. Restauro dell'ex portineria centrale del Villaggio Sanatoriale di Sondalo* in «Paesaggio Urbano» 2/2016, pp. 28-31.

century and, however controversial, it determined the development of this part of Valtellina, which, at the beginning of the twentieth century was just a cluster of houses clinging around the large church, and which now offers a new, panoramic view of the attempted transformations on former sanatoriums in the Alps.

The "1st italian sanatorium", Pineta Sortenna (1903), has now been renovated after twenty years of restoration conducted by the religious order which owns it and which has turned it into an accommodation complex and a spiritual centre. The structure, however, is unused and its possible sale is currently being evaluated.

The "Abetina" (1927) sanatorium was subject to a plant and regulatory modernisation during the mid-1990s and used as a Nursing Home up to 2001. Its conservation status is reasonable as the building has been unused for fifteen years, with well-preserved rooms and historical furnishings and technical installations to be reviewed. The Municipality of Milan who owns it, however, has placed the "Abetina" in a real estate fund in liquidation.

The Vallesana sanatorium (1929) was converted into a school and renovated between 2001 and 2005. Despite the low number of students, the construction of a large new building is in progress, funded by an agreement between local authorities, whose use is still uncertain, while the construction site has invaded what remained of the historic garden.

The former Sanatorium Village (construction: 1932-46; operation: 1946-1969) survives tenaciously as a hospital. For a time, it invested in non-local specialisations (knee surgery, lung diseases...) and, more recently, it tried to obtain an unlikely primary position among the hospitals of the valley. This structure, which is now dated from a construction point of view and too large to be a local hospital, has now given up on investing in attractive specialisations and its rationalisation is currently under way. The architectural and landscape heritage of the Village has long been ignored and its asset has been the subject of sporadic speculation. In addition, the local community has sometimes interpreted the efforts made to protect its historical and architectural features as an obstacle to reviving the healthcare function, rather than as a possible complementary activity, giving the idea of a paradoxical conflict between heritage protection and the defence of jobs in the hospital. On the contrary, the museum is the first case in which a part of the Sanatorium Village was removed from an abandoned status and re-used for a non-healthcare and largely self-financed activity. Intervention techniques on the buildings were experimented in this bridgehead for recovering the entire complex, not so much through drafting guidelines or method indications, but with a pilot-yard which demonstrated the feasibility, including from an economic point of view, of the restoration. In light of this successful result, it is necessary to overcome the dimension of a

sample and of the only cultural function, and to verify whether the village still constitutes a development opportunity for this mountain.

Before trying to imagine the transformation, it is better to further reflect on the effects of modernity in this part of Valtellina and attempt a comparison between the two ways in which it was urbanised during the twentieth century. The historic settlement appeared almost unchanged on the threshold of the twentieth century and has grown in accordance with the regulations which have on various occasions promoted or harnessed the building pressure and the revenue. After being hit by the great urban episode given by the Sanatorium Village, Sondalo has more than tripled its size, in accordance with agreed planning regulations and a territorial government given over to land-use plans. The legal paucity of the planning tools, however, sooner or later enabled anyone to exercise the private right to build on an own plot of land, to the extent envisaged by the Civil Code on the basis of the distance from the boundary, which, after all, can be considered the main settlement logic of urban expansion in the twentieth century. Nothing different than what occurred in the rest of Italy, but in Sondalo the comparison between the colonisation of the 1930s and the democratic expansion of the 1960s and 1970s is made obvious by their proximity and by the looming presence of the mountains, in relation to which it is reasonable to wonder which was capable of building a better relationship, both from the point of view of form and of duration.

It is however necessary to reflect, even provocatively, on the recent past, especially when it has left us such a controversial legacy[37]. Should we have immediately understood in the 1960s that the Village would have ceased to be used as a sanatorium, could we have reused the abandoned pavilions for other purposes, exploiting its still intact use value[38]? And if before that, during the 1950s, we had given up on starting up the entire Village, following the advice of the more prudent technicians[39]? We could have assigned that part of the sanatorium which was actually used for not much time and for which a healthcare reuse never actually took place, to Sondalo's demographic expansion, saving the best lands of the valley floor and creating

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37   S. Luzzi, *Salute e sanità nell'Italia repubblicana,* Donzelli, Roma 2004, pp. 12-13.
38   E. Sagliani, *Il centro sanatoriale di Sondalo nell'impeto di vita di Vittorio Baroni*, in «Notiziario della Banca Popolare di Sondrio» no 61/April 1993, pp. 33-40.
39   V. Baroni, *Il Villaggio Sanatoriale di Sondalo. Storia, organizzazione, sviluppo futuro,* in «Notiziario dell'Amministrazione Sanitaria» F. II (May–August), ACISP, Rome, 1946. The text is based on the homonymous report signed by Vittorio Baroni and Luigi Ferrari for the High Commissioner for Hygiene and Public Health, and on a number of projects and feasibility studies for the partial activation of the Village processed by Ferrari between 1940 and 1944 when he was technical manager of the INPS based in Sondalo.

an unprecedented settlement in the Alps, with panoramic and efficient flats within walking distance of the old Town and the nearest hospital, by using its terraced base as an infrastructural support.

Today that vision can still run counter to the idea that this complex is slowly dying, even from heterodox viewpoints, such as the image of the terraced base and of its infrastructure of roads, technical facilities and park. Its stable nature was rightly compared to the concept of mega-structure, as opposed to the "temporary" architecture of the pavilions which occupied it following such a specific contingent demand for therapeutic use[40]. If one considers a slightly wider time span than the contingency of the healthcare needs, the mega structure of the base, like the "Project A" for Fort l'Empereur by Le Corbusier (1931)[41], suggests the ability to accept new forms of architecture and the possibility of inhabiting the mountains.

Villaggio Morelli's base and park facilities is a rare example of a therapeutic garden in the Alps, equipped with underground technological networks, roads, squares. It is a laboratory where to regenerate this archaeological healthcare scenario, following the example of what has been done for industrial archaeology[42]. The two sides constituting it offer many new design issues. To the east there is a hospital which should be upgraded to contemporary forms of health care, in line with foreign and Italian examples. To the west, there is the opportunity of the abandoned pavilions which, after being studied and valued as landscape architecture, may create unexpected scenarios also from a real estate point of view, in respect of the early obsolescence of what was built on the valley floor, as Martel de Janville's example demonstrates. Finally, the vision whose feasibility should be tested is that of a neighbourhood with residential and working spaces appropriately related to the nearby hospital, within a well furnished public park which is upgraded to a mix between health garden and mountain wilderness. No longer a gated town to isolate consumptives or weekend skiers, but a city where to live, work, meet, i.e., one where to live today in the Alps.

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40   D. Preti, *La lotta antitubercolare nell'Italia fascista*, in *Storia d'Italia*, *Annali 7*, *Storia e medicina*, Einaudi, Torino 1984, pp. 955-1015 which suggests the hypothesis that tuberculosis in Italy could have been treated by investing more in clinical research and prevention, rather than in building so many sanatoriums.

41   R. Bahnam, *Le tentazioni dell'architettura. Megastrutture*, Laterza, Roma-Bari 1980, p. 4.

42   V. Ferrari, *Il parco del villaggio sanatoriale di Sondalo. Studio e rilievo di un paesaggio terapeutico,* Politecnico di Milano e L. Canesi, S. Grasso, *Piazza, città e salute nell'Italia fascista. Un progetto per il villaggio sanatoriale di Sondalo*, Politecnico di Milano, degree thesis in architecture discussed 1st October 2014, and M. Gonzales, S. Vallese, *Dopo la cura. Un progetto per il più grande sanatorio d'Europa,* Politecnico di Milano, degree thesis in architecture discussed on 26th July 2016, supervisor D. Del Curto.

Fig. 2. *Rotunda Room*, Mammoth Cave. Courtesy of the U.S. Geological Survey

Fig. 3. *Consumptive's Room*, Mammoth Cave, 1912. Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA. A.V. Oldham ©

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Fig. 1. Guests on the terrace at *Sanatorium dr. Barner*, Braunlage/Hartz. Photo by Nelly Rodriguez ©. Courtesy of Krankenhaus&Sanatorium dr. Barner

Fig. 4. *Schatzalp* sanatorium reopened as a hotel in 1954

Fig. 5. The *Zürcher Rehazentrum Wald* results of enlarging the former sanatorium in Davos Clavadel

On the next page
Fig. 6. *Martel de Janville* former sanatorium
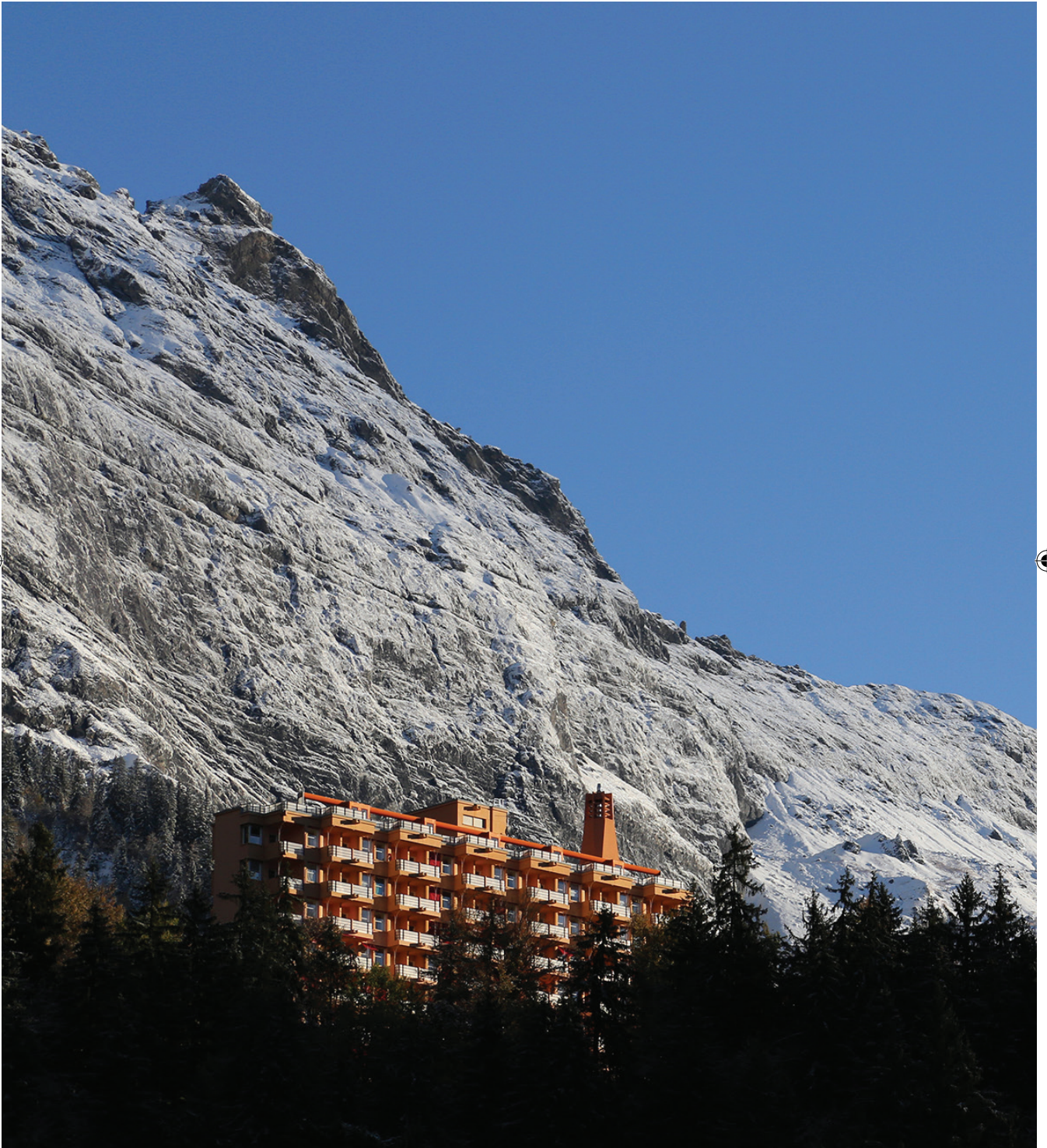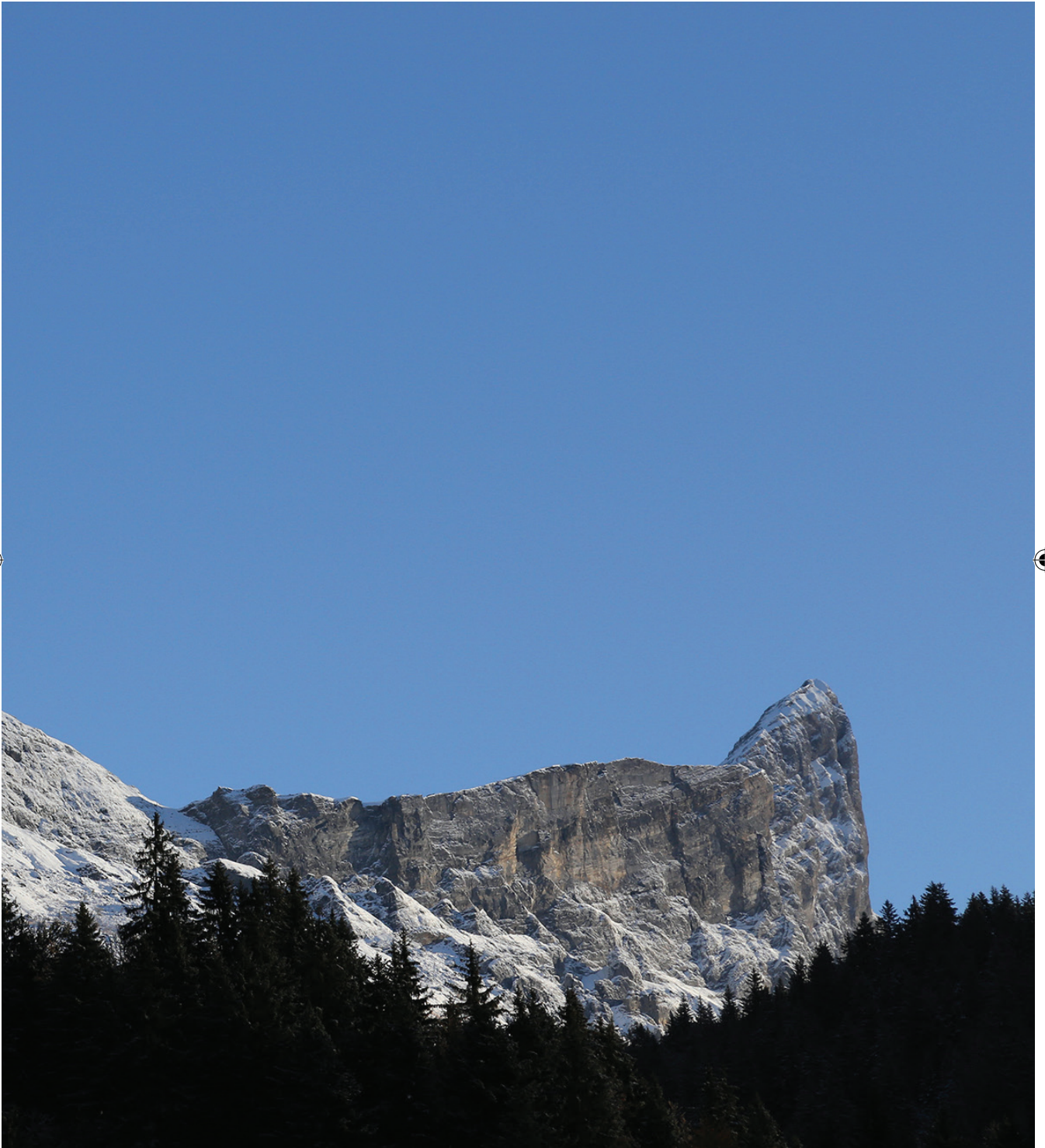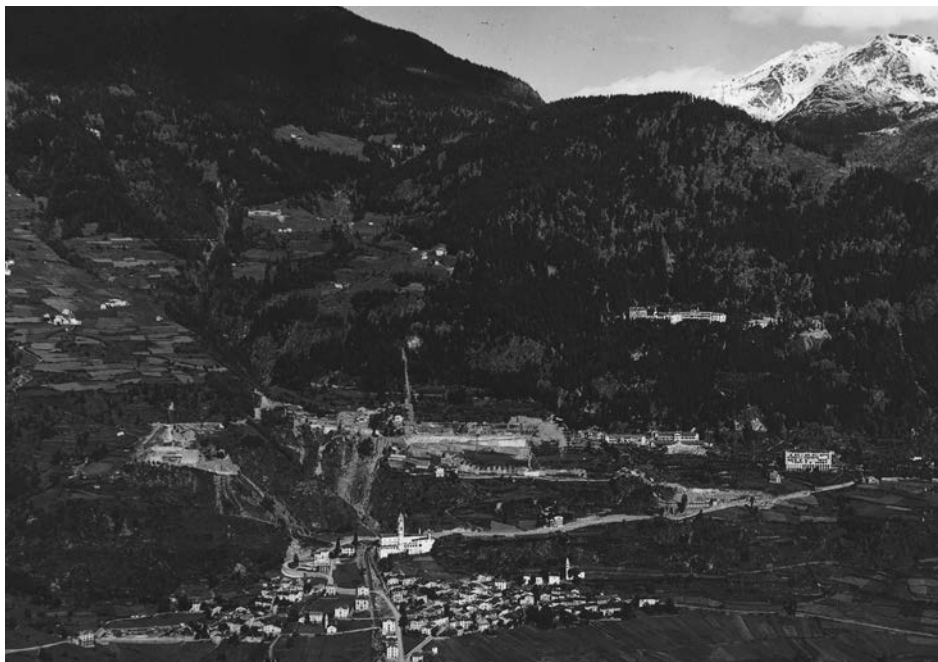
Fig. 7. Start of the construction site of the Sanatorium Village in Sondalo, 1932

Fig. 8. End of the construction site of the Sanatorium Village in Sondalo, 1940

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Fig. 9. Sondalo and the former Sanatorium Village, now hospital "Morelli", 2016
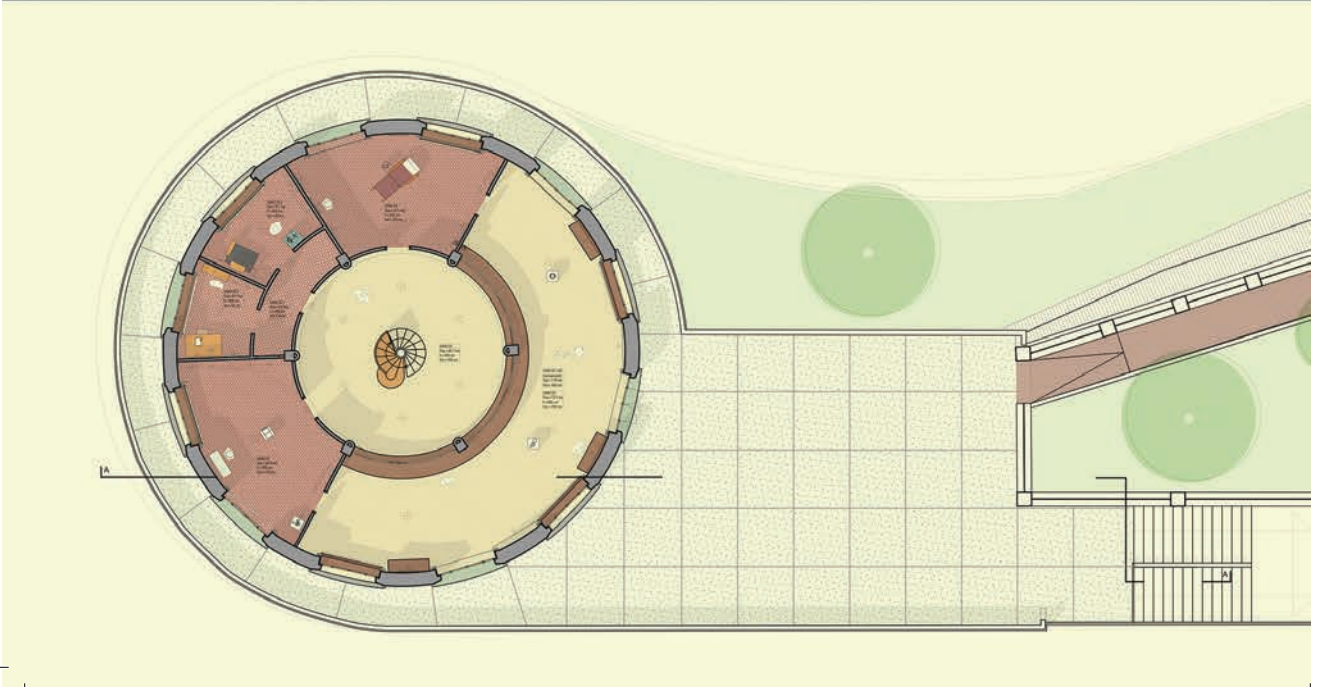
Fig. 11. Boris Georgiev, *Portrait of engineer Tullio Petech*. On the background the rising Sanatorium Village in Sondalo, courtesy of Capitolium Art

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Fig. 10. Davide Del Curto and Giacomo Menini, *Museum of Sanatoriums* in the former reception office of the Sanatorium Village in Sondalo, 2013 (project)

Fig. 12. The reception office of the Sanatorium Village in Sondalo, 1940
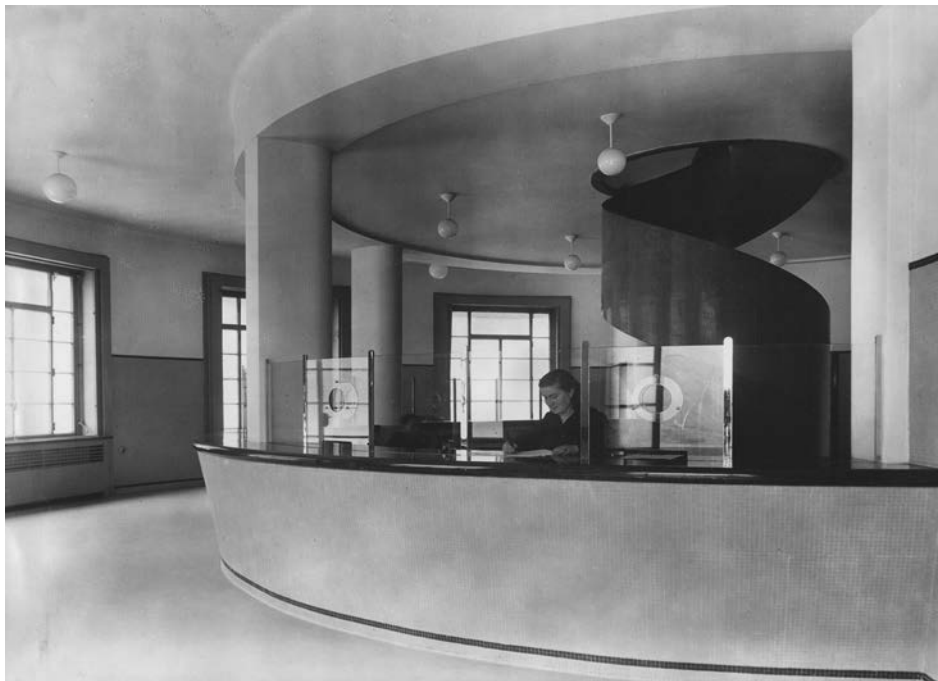
Fig. 13. Interior of the reception office of the Sanatorium Village in Sondalo, 1940

Fig. 14. Interior of the reception office of the former Sanatorium Village in Sondalo before restoration, 2012

Fig. 15. Interior of the *Museum of Sanatoriums,* set up in the Sanatorium Village's former reception office, 2015. Photo by Giacomo Menini

Alpine huts and bivouacs.
A collective heritage in the form of a glossary

Luca Gibello

Values

If we look at the birth and development of the practice of mountaineering not just as a human enterprise but rather as structured knowledge of an "other" region, the role played by the construction of mountain huts is not a secondary matter. Their tangible presence in high-altitude areas crosses over into many themes: geographical (and geological), construction, technological, social, historical, political, economic and symbolic.

History

The development of the concept of the Alpine hut and an interest in understanding how the ways in which they are used have changed (as support points for climbs mid-excursion to scientific observation outposts or as primitive shelters to comfortable spaces) leads us to examine more closely their history. This history is often recounted in a fragmentary, discontinuous manner, the prerogative of a small number of learned amateurs with a love of the mountains and confined to local studies, and lacks an interpretative framework capable of keeping together the many accounts which run through it. It is a history which, if it is truly to reflect the unity and totality of the Alpine space, must cross national borders.

Memory

Alpine huts are guardians of memory, in two senses of the word: that of Alpine exploits made possible by their role as infrastructure and facilities, and that of well- or lesser-known characters and events that have come down to us because the building was dedicated to or named after them. The few Alpine huts that have survived through to the present conserving their original nineteenth-century appearance have virtually become "museums of themselves": the so-called "hotel" of the scientist Friedrich Simony in Dachstein (scientists and geographers are the first systematic frequenters of high altitudes); the Grünhornhütte, the first mountain hut built by the Swiss Alpine Club in the year of its foundation (1863); the Rifugio Alpetto on Monte Viso (Monviso), the first mountain hut built by the Italian Alpine Club (1866); the Mandron Hütte (1878, converted into the "Julius Payer" Adamello Research Centre from 1994 onwards); the first Bartolomeo Gastaldi hut in Val di Lanzo (1880); the Tuckett des Écrins hut (1886); the Prince Luigi Amedeo di Savoia hut on the Matterhorn or Monte Cervino (1893; relocated to Cervinia in 2004). A few other Alpine huts have undergone minimal modifications over time and are still used: the Alpine hut of Fare in Oisans (1877); the Tosa hut in the Brenta Dolomites (1881); the Finsteraarhornhütte (1884); the Quintino Sella Hut in the Mont Blanc massif (1885); the Marinelli hut on Monte Rosa (1885); the first Gonella hut at the Dôme glacier (1891); the Rifugio San Marco in Cadore hut (1895).

The relationship of these mountain huts with the events of war during the twentieth century should also be mentioned. Both world wars left their mark on the existence of the Alpine huts, albeit in different ways. In the eastern Alpine arc, from 1915-18 many huts were requisitioned and used as barracks and outposts which, when hostilities ceased, were converted back again together with a number of military facilities built on an ad hoc basis (such as the Lobbia Alta barracks, which became the Caduti dell'Adamello hut). During the Second World War, in contrast, in the western sector Alpine huts became the stage for clashes between the Italian resistance and Nazi-Fascist militias, witnessing huge devastation.

Location

The construction of Alpine huts tells us about location choices, which were tied to the most frequented routes and often made through a process of trial and error (because the routes changed in the meantime or more frequently because avalanches, landslides and bad weather conditions destroyed the

original shelter). Sometimes the choice of the site legitimated or laid claim to territorial possession (as in the case of the unredeemed lands of the Trentino region from the late nineteenth to the early twentieth century, where the *Società degli alpinisti tridentini* and *Deutscher und Österreichischer Alpenverein* competed to erect buildings which faced off just a few steps away from each other, such as in the cases of the Sella and Tuckett huts or the Tosa and Pedrotti huts in the Brenta Dolomites.

Building sites

At high altitudes, or when the distance from roads and tracks is significant, the building site becomes extreme, meaning serious difficulties in terms of organisation, obtaining materials and skilled labour, exposed to the harshness of the climate and rhythms of the seasons and often able to work for a few months of the year. Particularly in the past, these building sites were characterised by extremely scant means; in other words, they were set up on the cheap (in terms of time, money, space, materials and skills), where the contribution made by skilled volunteer craftsmen was generally decisive. Hence the simplicity of design, which is often non-existent if considered in the terms in which design was conceived of during the same period at lower altitudes, although linked primarily to the "know-how" of the master builders. Hence also the results, similarly low-cost and in accordance with the optimised use of timber and metal components, prefabrication, standardisation and the reduction of weight and bulk to facilitate the difficult task of transportation. For example, observing the bivouacs, it is clear that their whole existence is linked to evolving prefabrication techniques, often characterised by technology and skills transfers from other spheres: the military sector first of all, as well as shipbuilding and aerospace engineering.

Management

A vast chapter, almost completely neglected, which would open up fertile socio-historical analyses. Given their presence at high altitude, Alpine huts perform a public service: from emergency treatment to monitoring – when run by a keen, expert warden – of the weather, orography, geology, plant and animal life, the movements of mountaineers, hikers or other mountain visitors. There are mountain hut wardens (a term that is preferable to the cold "managers") who fulfil their commitment as a veritable mission. They provide valuable information about the mountain conditions, and at the

same time are capable of educating their guests by conveying its values to them. It should be noted that the figure of the warden was born out of the need to guard over the Alpine hut and not to provide a service to ever more demanding "customers": indeed, it stems from the decision taken in Switzerland at the beginning of the twentieth century by the SAC to recruit a warden to protect the mountain hut from being destroyed by poachers, thieves or vandals. In certain cases, the history of the Alpine hut is almost completely tied up with that of its warden (such as Bruno Detassis at the Brentei hut or Tita Piaz at the Vajolet), or it becomes a hereditary biography at the family level (as for the Roveyaz family, who have taken care of the Sella hut on Monte Rosa for 70 years, or the Siller family, with 102 years and 4 generations of service at the Nürnbergerhütte).

Designers

When the era of the heroic race to the summits (which sometimes saw lawyers among the founding fathers of the Alpine clubs, such as Francesco Gonella from Turin) came to an end, with the dawn of the twentieth century names of engineers and architects began to emerge regularly. As mountaineers, they designed a large number of Alpine huts, especially for the *sezione* or division to which they belonged: from Alberto Girola and Remo Locchi to Giulio Apollonio, an authentic specialist on the subject, who between the 1930s and 1950s would put his name to over forty projects to build new mountain huts or expand existing ones located throughout the whole Alpine arc. We have Apollonio, who transferred the result of his projects in writing, to thank for perfecting the original four-person Ravelli with the nine-person version, which is patented and still in use today: a supreme exercise in *Existenzminimum* in 6 square metres. North of the Alps we have Paul Chevalier on the French side of Monte Bianco (Mont Blanc) during the 1930s, while in Switzerland mention should be made of his contemporary Hans Leuzinger and, after the Second World War, Jacob Eschenmoser, without doubt the most influential designer on the scene in terms of today's designs. These examples enrich the repertoire of typological and formal models, gradually releasing the refuge from the established, reassuring image of the traditional hut, of the chalet or of the *baita*. And an equally fundamental step, in the field of provisional, reversible solutions, concerns the design experiments of Charlotte Perriand, which are closely related to research into minimal spaces and new building materials. This process of evolution came to maturity in the 1990s, with new (replacement) building projects or extensions in all manner of styles which dealt with theme of minimising environmental disturbance by means of conceptual mimesis

or total abstraction from the context. They are projects designed by established professionals who do not limit their work to high altitudes: from the new Cabane du Vélan (Michel Troillet) to the Cristallina hut (Baserga Mozzetti Architects), the Tschiervahütte (Hans-Jorg Rüch), the new Gonella hut (Alp Progetti), the famous houses of the new Monte Rosa-Hütte (Bearth & Deplazes, based on research by the Swiss Federal Institute of Technology in Zurich), the new Goûter hut (Groupe H and Charpente Concept), or the Gervasutti bivouac (Leapfactory). It was specifically the latter which broke out of the confines of specialist publications in the sectors of mountaineering and architecture and featured on the global media circuits.

A development arena

The mountain hut makes for an excellent experimental design arena for various reasons: it needs to withstand extreme environmental conditions, distribution needs to be gauged by optimising use of space, the energy efficiency of the shell, plant and equipment, and more generally the "functioning" of the building needs to be maximised. Building site logistics must be rationalised, minimising costs and maximising benefits. All in all, it constitutes a test of transferring knowledge and tangible results in "ordinary" low-altitude sites.

Socialising

The physical space of the Alpine hut delineates a behavioural model which is interesting for its social implications. Besides the surrounding spaces, which make it possible to enjoy moments of contemplation and relaxation freed from the obligation of necessarily "consuming" something (a meal or a place to sit), the shared interior spaces can also be experienced with a certain freedom of individual movement. This does not mean that there are no rules: indeed, they can be extremely strict (set times for meals, arrival and departure, specific footwear, etc.). However, it is generally up to individual guests to announce their presence to the warden and take responsibility for their own actions: the educational value of the collective space lies in the need to respect one's neighbour. Such spaces offer an opportunity to socialise: in the dining areas, moments of involuntary dialogue, especially between mountaineers, are almost a ritual. And then, even if we arrive in the middle of the night, we will always find the door open and be able to enjoy the comfort of a shelter without a receptionist asking us for our documents.

Character

It follows that the space of the Alpine hut, unlike other types of tourist accommodation, exhibits a number of peculiar characteristics. It is therefore necessary for the design to be capable of expressing a sense of sharing, intimacy and conviviality (but austerity and protection too) and distinguishing itself from the standardising hotel model. It is true that, in recent times, the "public" clamours for greater comfort, services, and so on. Nevertheless, mass tourism has clearly shown signs of fatigue; the behavioural models, the sociology of leisure (and of culture, as never more than now have the two terms been complementary, if not synonymous), favouring "slow and sweet" approaches, environmental sensitivity, historical and social awareness of the environment which is temporarily our host during our visit. The Alpine hut (together with its warden) *already* – or *still* – epitomises these values, yet the risk is that they may sacrificed on the altar of the race for the more "modern" yet already dated model, which is that of the hotel. Only to realise, one day probably not far away, that we need to "get back to the roots", return to the essence, to the peculiarity of mountain hospitality. Hospitality which, especially at altitude, differs slightly from the concept of wellness.

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Fig. 1. Heroic mountaineering on the Italian way to Monte Cervino: in the foreground the *Luigi Amedeo di Savoia hut* (1893) and, in the background, the *Gran Torre hut* (1885)

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Fig. 2-3. Armando Melis, *Vittorio Emanuele II hut*, Gran Paradiso, 1931-1961. Drawing of the 1931 extension project and picture with the 1885 hut, on the right.
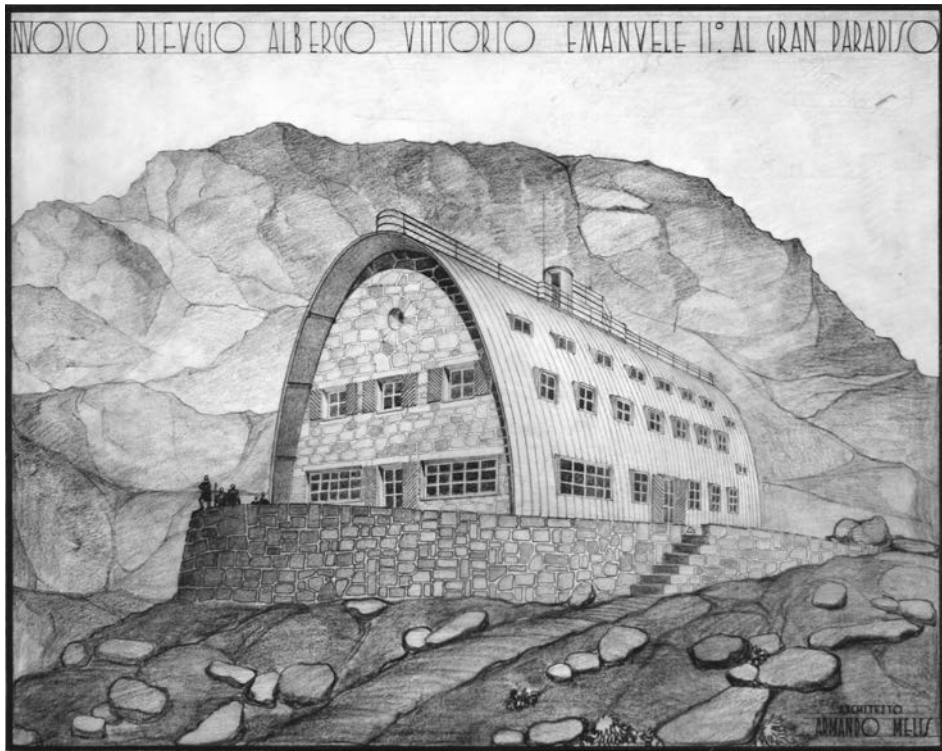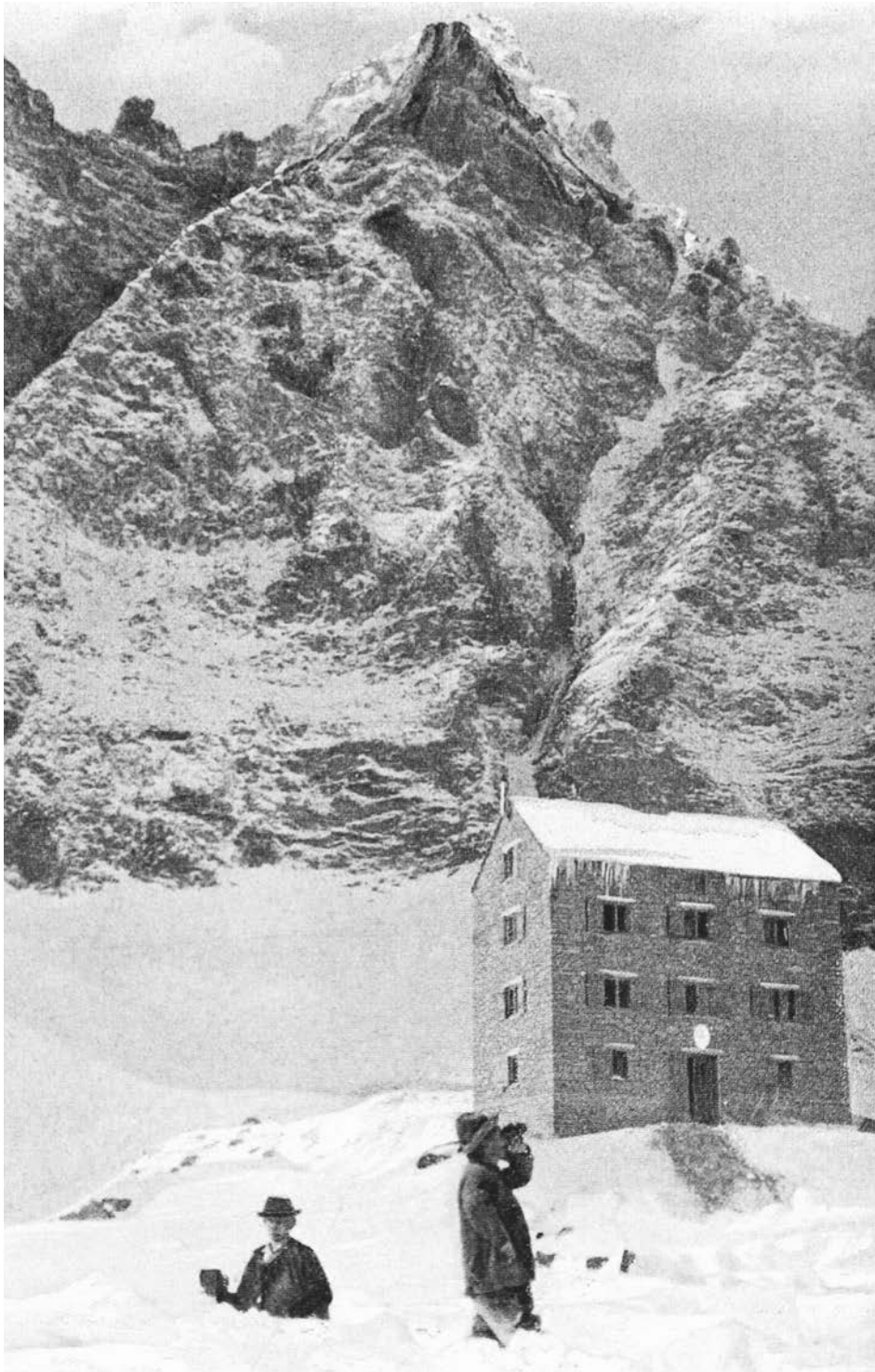
Figg. 4-5-6. *Quintino Sella hut* at Monviso: the original central nucleus (designed by Ubaldo Valbusa, 1905) has been repeatedly expanded and renovated (in particular in 1998-2001, on Gian Mario Bertarione's project)

Figg. 8-9. *Gonella hut*, Courmayeur. State of the art before and after reconstruction, 2016. Photo by Roberto Dini

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Fig. 7. M. Momo, G. Bellezza, *Vallanta hut*, Val Varaita, 1975-1988

Fig. 10. Nicola Baserga, Christian Mozzetti, *Capanna cristallina*, 2003.
Photo by Filippo Simonetti ©

Fig. 11. Nicola Baserga, Christian Mozzetti, *Capanna cristallina,* interior, 2003.
Photo by Filippo Simonetti ©

Fig. 12. Valentin Bearth, Andrea Deplazes, *Monte Rosa-Hütte*, 2009.
Photo by Giorgio Masserano ©

Fig. 13. Valentin Bearth, Andrea Deplazes, *Monte Rosa-Hütte*, interior, 2009.
Photo by Giorgio Masserano ©

Broadening horizons. Reclamation and adaptation projects for cemeteries in the Alpine region
Alberto Winterle

Projects to reclaim or adapt built heritage can often seem more reassuring than new buildings, the canons of which do not always meet with public approval. In actual fact, any approach to architecture has a single scope, which is that of the design which restores, conserves and enhances existing architecture by introducing the necessary modifications to adapt structures to any new needs. This happens always and in any case, engaging with the most advanced technical expertise and with the aesthetic evolution of contemporary architectural language.

Of all the transformation projects for the many types of building in terms of construction and function that characterise the Alpine landscape, the theme of expansion projects for the cemeteries found in virtually every small population centre represents a specific vantage point for observing the changes in structures linked to local morphology but at the same time the memory of places.

The landscapes of the Alps are distinguished by a large number of physical features which mark the presence of human habitation. Bell towers and castles constitute the principal historical elements that mark the area with their vertical lines. In contrast, the cemeteries, which often surround the churches, marking off the space dedicated to the sacred, constitute the horizontal elements which with their structures conform to the morphology of the land. Seen from afar, they may seem like mere containing walls which redefine the original topography of the places in which the churches are situated. Yet these walled curtains are particularly important, not just for their architectural value but also from an urban and sociological perspective, as they mark out one of the few well defined, organised public spaces

with respect to the typical structure of Alpine settlements, which mainly consist of independent, disaggregated volumes.

Like the churches, some of which over the course of time have been modified or extended with the addition of new built sections, the cemeteries, too, for evident functional needs, have undergone subsequent extensions with the addition of further sections of "new enclosures". Old containing walls have been lengthened or others have been added or superimposed, the spaces have taken on new forms or have been enhanced by additional areas situated beyond the original confines. The particular richness of historical examples, which has offered up a store of solutions, forms and materials is now being added to by an interesting catalogue of examples of building interventions capable of meeting the need for new burial spaces and also making space for new funerary niches and ossuaries which correspond to a new, increasingly common burial practice. The examples examined show how these hybrid projects can constitute a paradigm for the ways in which settlements become established in Alpine regions as they are placed in a delicate balance between architecture and landscape.

On page 178
Fig. 1. weber+winterle architetti, enlargement of the Ziano cemetery.
Photo by Paolo Sandri ©

Fig. 2. Studio EM2, enlargement of the San Sigismondo cemetery.
Photo by René Riller ©
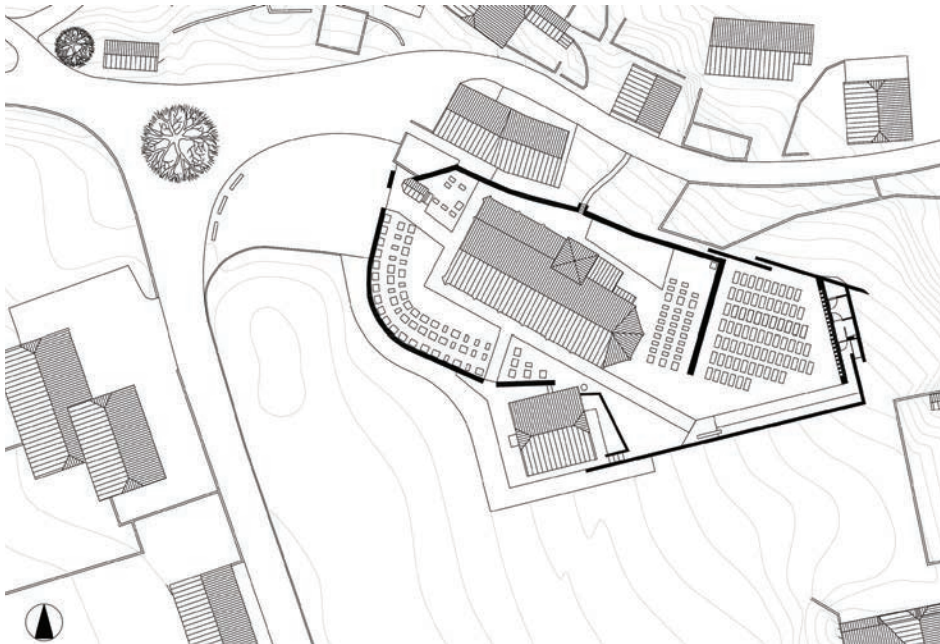
Fig. 3. Studio EM2, enlargement of the San Sigismondo cemetery.
Layout plan

Fig. 4. Studio EM2, enlargement of the San Sigismondo cemetery.
Photo by René Riller ©

Fig. 5. Studio EM2, enlargement of Lutago cemetery.
Photo by Günter Richard Wett ©

Fig. 6. Studio EM2, enlargement of Lutago cemetery.
Photo by Günter Richard Wett ©
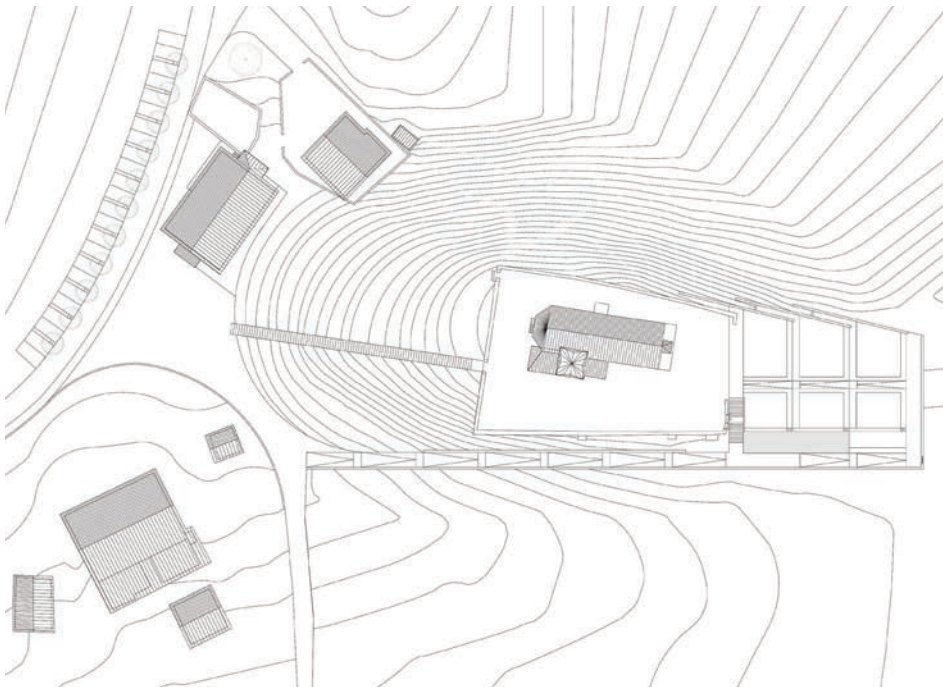
Fig. 7. Studio EM2, enlargement of Lutago cemetery. Layout plan
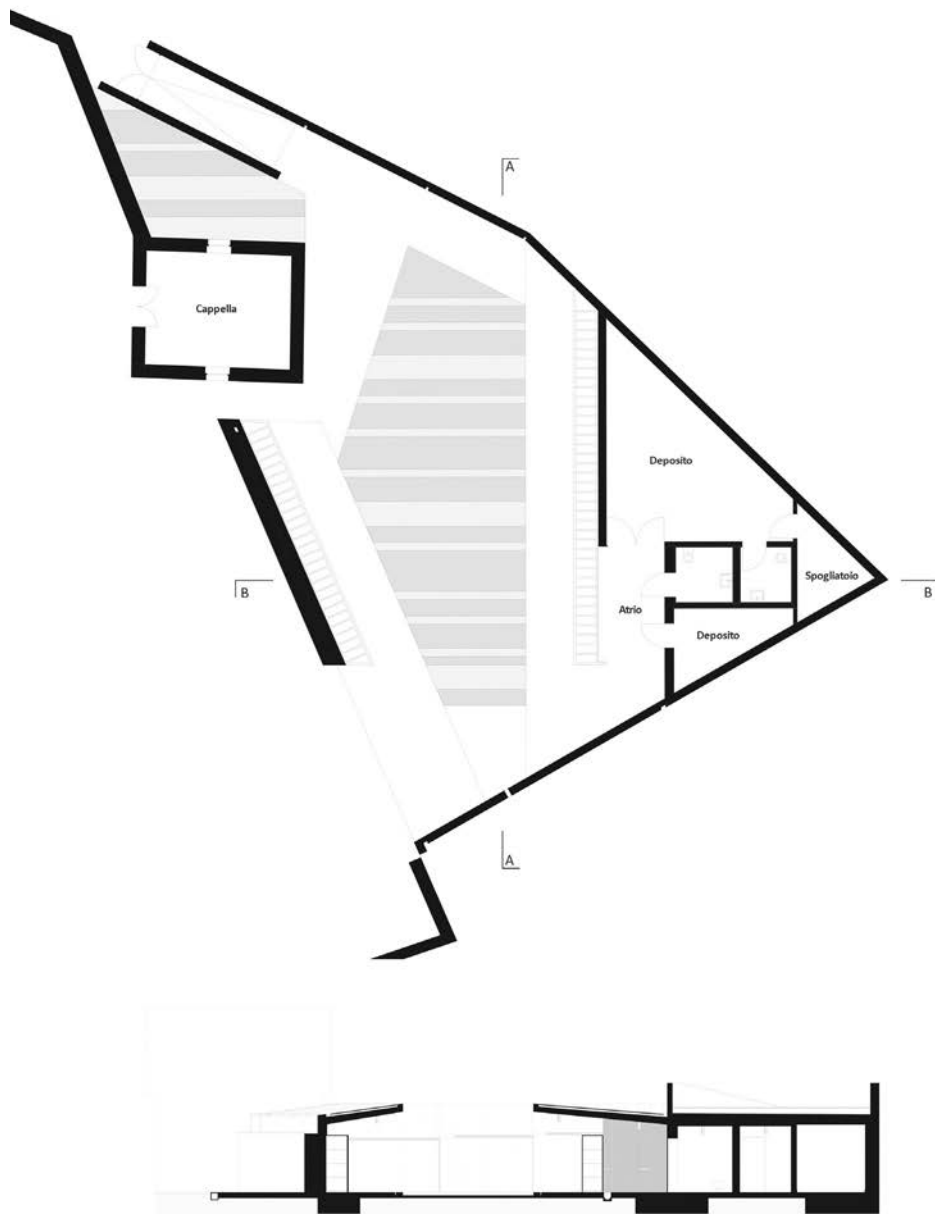
Fig. 8. weber+winterle architetti, enlargement of the Ziano cemetery.
Layout plan and cross section

Fig. 9. weber+winterle architetti, enlargement of the Ziano cemetery.
Photo by Paolo Sandri ©

Fig. 10. weber+winterle architetti, enlargement of the Ziano cemetery.
Photo by Paolo Sandri ©

Les critères adoptés ne sont plus les mêmes que ceux qui ont conduit à la construction originale, donc non justifiés.

Constructions traditionnelles originales.

Répétition de la copie conduisant à des « compositions » basées sur la surface des lots individuels : espaces intermédiaires trop grands (législation sur la construction !). Les habitations ne diffèrent entre elles que par des détails de mauvais goût.

Collectif « déguisé » pudiquement en chalet.

Station « moderne » devenant rapidement invivable.

AUTO-DEVALUATION DES CENTRES DE VACANCES ACTUELS.

L'origine d'un centre de vacances est, la plupart du temps, un lieu calme, retiré, approprié au repos et à la solitude, où l'homme, qui ne saurait rester longtemps seul, a attiré ses semblables ; le village est devenu agglomération ; l'agglomération a entraîné la formation d'un nouveau milieu urbain ; sa raison d'être première a perdu peu à peu de sa valeur au profit de nouveaux buts ; des installations secondaires se sont créées ; le paysage est détérioré.

Pour que ce centre de vacances « dénaturé » ne perde pas de son intérêt, on le dote d'autres attraits : complexes sportifs, de loisirs, culturels, commerces, hôtels, restaurants, nouvelles habitations, etc., le développement se poursuit... Insensible et insouciant, l'homme laisse accomplir cette croissance incontrôlée jusqu'au moment où il se lasse et s'en détache au profit d'un nouveau « paradis »...

Le rêve d'une vie prospère et plus complète susbiste... Les communications sont maintenant faciles et rapides. L'homme aspire à d'autres sources d'évasion, plus lointaines, plus authentiques : Egypte, Israël, Hawaï, Grèce... Club Méditerranée !... afin d'échapper à « l'ambiance urbanisée » qu'il a créée et dont il transporte d'ailleurs inconsciemment les germes là où il va.

construire en montagne

existe-t-il une architecture de montagne ?
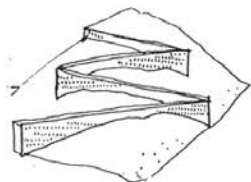
Les dispositions en ruban et en termitière présentent l'avantage de réaliser des programmes importants dans des constructions en lacets qui, au même titre que les routes ou voies ferrées, s'intègrent bien au paysage.

L'habitation troglodyte. Cette forme d'habitat spontané trouve de nouveau sa raison d'être : les servitudes (règlements, directives de protection contre l'incendie et contre les bombardements aériens) sont tournées avec élégance.

Les constructions en terrasses avec jardins suspendus représentent une solution déjà classique d'implantation sur pente abrupte.

La circulation principale (funiculaire) peut être à la base d'une trame convenable pour des habitations individuelles. C'est une solution qui allie la liberté de choix et les aspirations personnelles à une composition d'ensemble volontaire.

L'agglomération « invisible » s'est révélée satisfaisante dans les régions arctiques.
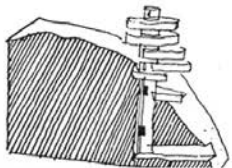
Immeuble-tour avec noyau central de circulation, solution intéressante pour des terrains à priori inaccessibles.

Toutes ces formes de construction offrent une source inépuisable de possibilités pour créer en montagne un cadre de vie et d'expériences qui diffère à coup sûr des milieux urbain.
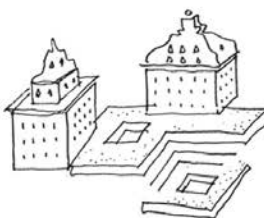
Développement de l'hôtellerie

Revalorisation des constructions existantes en bon état par des aménagements nouveaux à l'intérieur et à l'extérieur, en superstructure et en infrastructure (Club Méditerranée à Leysin).
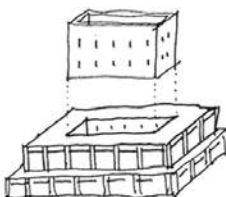
Réemploi de ruines ; Intégration dans de nouveaux complexes.

Subdivision des étages trop élevés sous plafond, grâce à la climatisation.

Les châteaux dont l'entretien ne peut plus être assuré par des propriétaires privés peuvent être aisément transformés en hôtels ou studios de vacances.

Les chalets-étables d'alpages peuvent être transformés en unités de séjour par l'installation d'éléments de confort (sanitaires, chauffage, etc.). Exemple : le village de Bruson dans le Valais suisse.

Les chalets de haute montagne peuvent être transplantés et groupés en unités de vacances (démolition et récupération des matériaux). Exemple : village de Pragambal, dans le Haut-Trentin, Italie.

Des groupes de chalets-étables peuvent être organisés en unités compactes destinées à un usage déterminé (habitat collectif, hôt-!).

Alpine architecture.
Styles and figures

Bruno Reichlin

This paper begins with the experiences gained as part of the jury for the competition "Neues Bauen in den Alpen". In the nineties, at the initiative of Christoph Mayr Fingerle, together with my suggestions and those by Friedrich Achleitner, Marcel Meili and Manfred Kovatsch, a small group of people was formed which was commissioned by the Town of Sexten in Val Pusteria to solicit architects, developers or communities to send in projects they considered interesting within the Alpine panorama. Already from the first edition, we are able to see a great interest from designers, even going so far, in the latest edition, the fourth, to receive more than 450 projects. An initial screening of about twenty projects took place, which the jury visited, and on the basis of the survey a second selection was carried out, in view also of a publication. The purpose of the competition was to identify and suggest a range of projects which represented the ways of building in the alpine landscape to a lay public.

However, there was a common belief within the jury, namely that a coded way of building in the mountains did not exist: there was no rule and one could not rely on any prescription or regulation. Building in the Alps, however, was identified as the theme, a theme that the jury always discovered as new, including by observing the proposed projects. Therefore, not being able to define alpine architecture through a pre-established cultural rule or objective criteria, the jury wondered how and why those projects really had something to do with the Alps. Competitions like this one therefore also have a kind of ambiguity, because you end up evaluating quality architecture with the uncertainty that this may actually fall within the scope

assigned by the competition. For alpine architecture it is certainly so: no one can declare a priori that a certain project should belong to this category, which instead takes shape based on cultural experiences gained over time and by comparing works. Publications expressed the jury's evaluation anonymously, arousing renewed interest in the designers, including in relation to criticism of their works.

I, and then in the following edition, Fritz Achleitner, wrote retrospective texts, in which we wondered when alpine architecture had taken on significance, enough that it could be considered an object of study, and which were the criteria developed in order to grasp its peculiarities. All criteria such as altitude, constructions on slopes, etc. seemed irrelevant, so we analysed the period from the beginning of the twentieth century up to the thirties and forties, in the light of what had been said and written over time, in order to understand and interpret the concrete creations, submitted to our judgment. Because "alpine architecture" is something which reveals itself through a historical-critical approach which takes into account the global cultural evolution of an era, not just of its architecture.

Something that appeared immediately very important was the type of chalet. From the fifties of the nineteenth century[1] there are regions in Switzerland which base their economy on exporting chalets, shipped around the world with the kit required for their assembly. These chalets were available in several styles: Berner Stil, Holz Stil, Schweizer Stil, etc. The style was maybe simply a way to differentiate the production of the various manufacturers, and dissemination was therefore fuelled by competition. There were many cases, and often these chalets lost all links with the original model. Later on, we shall see a very clever example of reinterpreting this typology, with the Luzi house where Peter Zumthor showed great intelligence not just as an architect but also, we could say, as an ethnographer. Zumthor therefore revived a typology which seemed forgotten, but which was actually documented in the specialist and scientific literature devoted to Swiss alpine culture.

So why is this "Alpen Stil" so interesting? Because, in the case of the chalet, we see a prescriptive model: when producing these chalets, there is a kind of idea of what the so-called "Alpine style" actually is. During the sixties of the twentieth century, instead, Manuel Pauli, who had to present an issue of «L'architecture d'aujourd'hui» concerning alpine architecture, compiled four very dense pages of caricature drawings to express his despair in front of all the infinite variety of interpretations which one or the

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1   Cfr. E. Huwyler, *Verkaufsschlager Schweizer Chalet, 18.-20. Jahrhundert*, in R. Furter, A.-L. Head-König, L. Lorenzetti, J. Mathieu (edited by), *L'invention de l'architecture alpine. Die Erfindung der alpinen Architektur*, Chronos, Zürich 2011.

other, now freed from stylistic impositions, had thought were compatible with the idea of alpine architecture. They are ironic drawings, related to often recognisable projects, published in the magazines of that time and which had charmed many critics, ready to praise them as wonderful examples of alpine architecture. I remember, though, an early work by Carlo Mollino concerning the reconstruction of the Garelli *rascard* (a typical ancient house) in Champoluc, where he says that everything had been tried in the field of alpine architecture, and that at the end, traditional architecture is still the best there is, and it is therefore important to save it.

During the sixties, there were also those who thought they could still prescribe solutions. Just look at the many building regulations of many Alpine municipalities. In Switzerland, these regulations were often drawn up in the city (as in the case of the regulations for Celerina which were drawn up in Zurich), hence with a very distant cultural attitude from that of the mountain people. These were regulations that, for example, prescribed non-alignment of windows, their size, the geometry of the facades and the floor plans (not all right angles!), etc., thus a series of rules laid down-decreed by municipal regulations.

Modern architects, however, developed other inclinations. I will not repeat here what I have already written on other occasions concerning the period around the thirties, where I had discovered two very interesting schools among modern architects who build in the mountains: an "*avant-garde*" and a "culturalist" school. Architects who followed the former were happy to be able to build in the mountains, as they could easily find a lot of excuses connected to the structure, the climate, the construction, the purpose and so on. In this regard, I would like to point out that when we speak in derogatory terms of functionalism, perhaps we have no idea what this school was really about: there were very refined and intelligent functionalisms, and during those years, architecture was conceived as based precisely on these real, and not pretentious pretexts. Therefore, functionalism, per se, besides producing quality formalism, was an interesting behaviour, which found many interesting justifications in the mountains.

On the other hand, the culturalist movement drew on literary descriptions, on genre paintings which had proliferated mainly within Austrian and German contexts, in what will be the Biedermeier artistic culture, with its great painters and writers. Biedermeier paintings depicting traditional architecture within the landscape were the main inspiration. For others, the Rosenhaus in the extremely modern and strange novel (if we can call it novel) *Der Nachsommer* by Adalbert Stifter was the reference point. Architects such as Paul Schmitthenner and Paul Schultze-Naumburg are surely modern as well, as it would be ridiculous not to consider them as such: only, they are modern with a conservative ideology, they have created egre-

gious things, but also committed tremendous ideological errors.

After the war, figures such as Carlo Mollino are unconventional. At a multi-speaker conference which took place in Turin in a bourgeoisie ladies' club, Mollino draws something peculiar: he draws a slender building launched over an empty space, with a metal and lightweight structure, as opposed to the design of a traditional structure based on arches. Lodovico Belgiojoso comments that the first drawing is a rational solution and statically more interesting, but Mollino contradicts him, explaining that the strength of this solution lies in its exaggeration, in a static solution taken to its limit, which if not wrong, is certainly exaggerated. But precisely through this "significant" exaggeration, he refers to a typical aspect of mountain building, to a problem of stagnation and construction. Mollino therefore introduces a way of thinking about architecture which is pre-semiotic: architecture is "significant" through this exasperation of a functional trait, such as its structure. We have therefore entered a vision which is no longer normative or prescriptive. Architects are exploring – based on their own culture, a totally deconstructed culture, at the end of the war – the ways in which architecture carried out in the mountains and meditation, common thoughts and even their fixations may be put into relation: Belgiojoso reacts as a good functionalist architect would, although a bit naively; Mollino instead has a semiotic intuition of how architecture works insofar as it is a system to create significance. This is why he resigns himself to the disastrous situation of architectural criticism long before everyone else, noting such a low level that no good could be expected even from the very specialised public.

Another protagonist of alpine architecture is Lois Welzenbacher. He builds a hotel in Allgäu Oberjoch, where there was an existing house which he keeps, changing the roof, and placing a flat terraced building on the ground below. It is perhaps one of the first terraced hotels of the twentieth century, finished in 1933. The pre-existent roof is very conventional, and Welzenbacher even accentuates its character, conscious of the fact that the building is seen from above, and therefore has a "fifth façade" which respects the scale of the landscape; the terraces will be seen only as steps, with a shape which is at least apparently "naturalised". The building opens out as a fan over the valley below, and it ensures that every room is distinguished not by its furnishings or special structures, but by an ever-changing view which is therefore unique. By choosing a room, the user can therefore imagine having a piece of sky which belongs only to him. This hotel was recently renovated, with no conservative intent and therefore almost destroyed, although it was an interesting and innovative building. Unfortunately, Welzenbacher was discovered too late, and almost all his works are nowadays destroyed. Even the most informed critics did not understand

the importance of this hotel, perhaps because of the presence of that roof which was mistakenly understood as an act of submission to the censors of the Dollfuss era. A hotel destroyed blow by blow, regardless of Welzenbacher's exemplary sketches, which perfectly explain the concept.

Another pretext is the climate, and as an example we can refer to the need to minimise the impact of wind on the facades as much as possible. This is the case of the cable car station in Furggen in the version designed by Carlo Mollino. In 1957, Jakob Eschenmoser with his Domhütte above Zermatt, in Valais, creates a striking example of functionalist alpine architecture with his "small mountain hut". The hut in fact has a rounded shape in order to limit the wind's grip, thereby reducing noise and stresses. But even in section, the rounded shape allows an improved use of the space, as the climbers, all sleeping with their heads against the wall, have a greater need for space towards the outside, where the shoulders are, rather than towards the centre, where their feet converge. Finally, its rounded shape, the surface being equal, very much limits the full development of the outer bearing wall.

Many years before, in 1929, Hans Leutzinger designs the hut on the Tödi, the so-called Planurahütte, for the Swiss Alpine Club. It is at 2900 meters, in an area devoid of any human traces. For Leutzinger, architecture should somehow disappear completely, blend in with the natural landscape. The building was built in stone, according to a traditional concept which recommends the use of materials found on the spot, also to shorten the site construction time. Leutzinger published several photos of the Tödi landscape in «Werk» magazine, in order to demonstrate, paradoxically, that the new hut so merged in with the landscape that it is not even noticeable. In this case also, attention is drawn to the door's positioning in relation to the prevailing winds; an essential consideration when building a mountain shelter, but one which appears to have been forgotten in some recent constructions.

Still within the concept of a mimetic relationship with the landscape, there is the church by Hans Fessler in Arlberg, near Innsbruck. It is located on a sloping piece of land, with the main entrance oriented on the corner; its facades are coated with a very rough plaster, extremely reactive to light and very plastic; the roof follows the slope of the ground, suggesting the image of a crouching animal on grass. Clemens Holzmeister, a much more well-known Austrian architect, years later seems to have learned a lesson from this church and from its integration into the landscape. In fact, he builds a chapel located on the edge of the legendary ski slope of the Hahnenkamm in Kitzbühel. A subtly spectacular design. Going around the building you immediately notice that one side is covered with wood, while the other is plastered: a curious idea, almost as if created by a decorator.

But going around more, one understands Holzmeister's great intuition: as this is a land full of landslides generated by the permafrost, the building appears or disappears according to the viewing point. On one side, you see the part made of wood, on the other the white plaster. It is a building designed on the basis of multiple viewpoints and it shows itself in different ways depending on how you ski down the ski run: along one route you can only see the roof that emerges; along another one you see it emerging from the snow as totally white; from yet another it appears as a wooden building. It almost seems like a mise-en-scene, a dynamic spectacle connected to the run and to fast perception.

Another project shows the disagreement which architects often display towards building codes, regulations which have the duty to protect and safeguard traditional villages. The project is by Livio Vacchini in San Bartolomeo in Vogorno, in Val Verzasca, a beautiful village of tower houses, a particular type of dwelling with rooms arranged one above the other, served by external stairs, which exploit the slope of the ground. The project concerns the extension of one of these tower houses which Vacchini does not shy away from despite regulations imposing the mandatory adoption of stone roofs. Vacchini's idea was to add another tower to the existing one, located at a distance similar to the one that historically was normally adopted in the village. Between the two towers there is an empty space, partly glazed, which could therefore be used as a covered porch. The project was presented with a large flat roof which joined the two towers in the hope that the Board would positively consider the respect for the historical tower made with stone walls, not dwelling on the particular shape of the roof. Of course, the Board rejected the project with the flat roof. In order to get around this obstacle, Vacchini added two pitched stone roofs to the project, simply superimposed on the flat roof, therefore with only a representative function: a *mise-en-scene* of the traditional roof scene with no protective function. An extremely interesting project, which describes and highlights the nature of traditional buildings in the village: the project now has a historical tower, renovated, and a new tower of the same size; between the two towers there is a an empty space, with French windows which can be opened completely to become an internal/external space, also taking in light from above; finally, two sloped roofs over the flat roof, which are obviously false, but are perhaps the only roofs which exactly reproduce Ticino's historical type of sloping roof, as here they only have a representative function and not one of protection and insulation. With this trick, Vacchini seems to denounce the superficiality of the restraint which he had to adhere to, but the fact remains that, in the village's global image, the fiction backs up the restraint. This house is therefore a kind of detector-building for multiple and even contradictory aspects and meanings.

Valerio Olgiati instead builds a very particular structure in Scharans, a small village in the Canton of Graubünden. He has to keep the volume of an old house which, however, has real static problems. Olgiati thus keeps the external volume of the old house, but leaves it completely uncovered and builds it with a red pigmented concrete. A very interesting choice, as this has two different meanings: on the one hand, because red is a colour which goes very well with the dark brown of the historic chalets and with the green of the surrounding nature, as painters well know; and on the other, because there it recalls the *Ochsenblut*, the dye which farmers used to ensure that pests did not destroy the wooden beams. The wooden moulds used for the casting, with an expensive operation, were engraved with a star, a shape that is a kind of propitiatory symbol in rural architecture and, I would like to point out, one that is also used in moulds for making butter. Traditionally, however, this symbol was etched into the wood; here, instead, after removing the formwork, the symbol emerges in relief on the concrete. Shadows therefore appear reversed, and this is already a first cause for bewilderment. The stars are all different sizes and they seem to float on the red surface at different depths, suggesting a kind of dematerialisation of the building. As concerns the openings, these have been chosen in such a way as to constantly frame different views of the village. From the village, on the other hand, we perceive this house as a kind of set design. The empty space inside the enclosure is only partially filled with functions, and Olgiati enjoys justifying this by saying that only the part of the building which was needed was covered and all that the customer (a poet and musician who composes for children) could afford: the rest could be added in the future. It is one of Olgiati's typical and slightly ambiguous jokes, which well represents his way of doing things, both as an architect and as a debater. However, this is an interesting new idea which responds intelligently to a regulatory prescription, while I dare not imagine what others might have done, having to rebuild a volume like this one with the intent of "integrating" it inside the village.

Earlier, I mentioned chalets, these houses for tourists which were bought by choosing from a catalogue. Today, the chalet is no longer what one used to buy in Paris or in London to then be placed as a folly inside a park, but a type which is used as a dwelling in places such as Lenzerheide in Graubünden or Verbier in Valais. These houses are however produced by local industries, or at least they were until a little while ago, keeping a regional production chain and economy alive. Suddenly, after all the curses thrown by architects against kitsch and stereotypes, today the chalet finally returns. It is a rediscovery made by architects such as Conradin Clavuot, Gion Antoni Caminada and also Peter Zumthor, architects who reinterpret the chalet from a contemporary point of view. Luzi's house project in Jenaz,

in Prättigau, is an example of this return, and it is based on a nice story. The Luzi couple consists of two professional university teachers living in the area. The wife teaches modern Family and Consumer Sciences, reinterpreting certain aspects of the peasant culture, while the husband teaches various technical subjects. For their home, the couple decides to launch a sort of manifesto in favour of chalets and against so-called Ytong houses, very cheap prefabricated houses touted for their energy performance, but of dubious architectural qualities. They live for years in a house next to their land, in precarious conditions, because they want to hold a competition of ideas for the project. So they turn to Peter Zumthor asking him to become a member of the jury, but instead he offers to take care of the project directly. The Luzi want the project to involve the whole community, giving employment to local masons and companies. The type of chalet they choose is also because there are still companies able to produce it in the area. The problem of the stairs is solved with the help of a man that Valentin Luzi met while giving him a lift in his car. The "hamburgers" (an ancient guild of woodworkers and carpenters, designated by their origin) are big men with black hats and black velvet clothing who tour Europe in search of work and experience before creating their *chef d'oeuvre* which consecrates them as complete carpenters. Luzi asks for advice, and this proves to be decisive. The building is in fact notable also because of the way in which the stair problem is resolved. On the ground floor there is a large entrance with a vast free space, next to a small flat which is rented. On the first floor, in the corners, there are the stairwells or the closets, which have a distribution role as well as a static function. Around a central element, where services and facilities are concentrated, there are four large spaces. What is remarkable about these four spaces is that each has a different view over the landscape: one looks out at the village, another a tree, another the bottom of the valley, etc. The core rises to the second floor, where there is the common bathroom. This is a very tall room, hieratic, which climbs up to the roof ridge, revealing itself as the most intimate family space, at the centre of the house. But the most interesting aspect, concerning the stairs, is that the rooms on the second floor can be reached each from a different staircase, but then the paths converge once again into the common bathroom. This route, whereby each member of the family climbs by using a different set of stairs, evokes and transforms the traditional type of chalet found in Central Switzerland, such as the large traditional chalets in the canton of Lucerne, where different ladders branch off from the living rooms towards the rooms in the attic, which usually host seasonal workers. Inside the roof there are therefore many small bedrooms which can be reached in different ways and which reflect the employees' non-membership of the family. In Luzi's house there are only the parents and their children, where each person uses

a personal staircase to climb to the rooms, emphasising by contrast the everyday life areas, such as the large dining room, the living room or the music room for the children. The apartment on the ground floor derives from the *Stöckli* tradition, i.e. the house where the older generation goes to live when they leave the main family house to their children. Thus the Luzi also create their old age flat on the ground floor, when they will not want to climb the stairs anymore. The building therefore takes on a very interesting social dimension. Finally, the spaces for the stairs also have an insulating and static function, strengthening the corners of the building and acting as bracing.

I want to end with an example of "recovery" suggested by architect Martino Pedrozzi from Ticino, repeatedly reported in the journals of «Neues Bauen in den Alpen». His family owns a few farm buildings on the Alpe Sceru at almost 2,000 metres above sea level, in Val Malvaglia. A cabin, built by recovering stones, flagstones and wood from an almost "destroyed" farm building, completed and repaired, becomes a Spartan shelter for those few summer days in which the family lives in the Alps. Since there was no more use for a second farm building close to collapse, Pedrozzi decides to only consolidate the roof by interspersing new struts between the old and collapsing ones; and, as it is no longer used as a shelter, he shortens the ridge beams of the truss so that the lower edge of the roof fits perfectly flush with the walls. The effect is amazing: there is no longer either a house or a roof, but just a pile of stones with their dense, "heavy", material-oriented shapes. There were still piles of scattered rubble around these cottages, which an unsuspecting observer might have mistaken for crushed stones erupted from the permafrost. Pedrozzi and a friend of his, in just over three hours by working hard throwing stones toward something which gradually took on shape as a centre and then as a rectangle, finally make the first lines of the external walls of an old barn visible, to which the piled up stones now give the appearance of a mound - a sort of burial for the building that it once was? These interventions remind us of the themes of minimalism and Arte Povera, certainly known to Pedrozzi, but most of all they inaugurate new innovative figures concerning the themes of memory and abandonment, which had found a precursor in Aldo Rossi's reflections.

All these suggestions, together with others, helped us, the jury, to think in different ways about the theme of building in the mountains. It can be concluded that only a great deal of culture and great training in looking at things both with the eye and also with the mind, make it possible to find both innovative and feasible solutions. Everything else matters little: there are no shortcuts, there are no regulations, it is no longer possible to prescribe, but maybe it is possible to work by providing ideas, by show-

ing many things done well and thinking that other people, by reasoning on this issue, will find new solutions. Years ago I defined this attitude, at a critical level, as "intertextuality", which consists, essentially, in taking what others have already done and adding something new. It does not mean copying. There is a sort of malpractice according to which, when someone does something, there are those who observe and think they have already understood everything, "this is a Zumthor", "that is a Caminada", – or one happens to hear – "this is a Zaha Hadid". But, truth must be told, the real problem is not there: we always copy something, but the problem lies in figuring out what we can do with intelligence and sagacity, with the things we copy. In the words of Ortega y Gasset, it is impossible to escape the "contingency" of our time, the conditioning by what is around us, but the important thing is to look for an idea which allows us to go a little bit further beyond this.
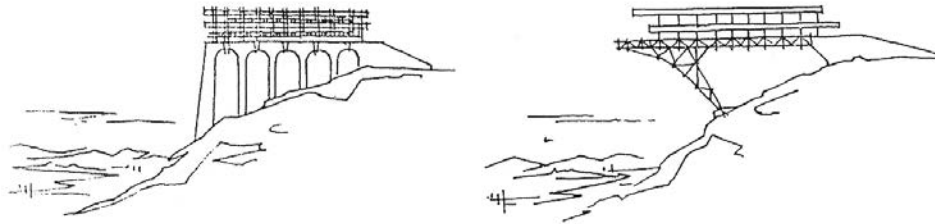
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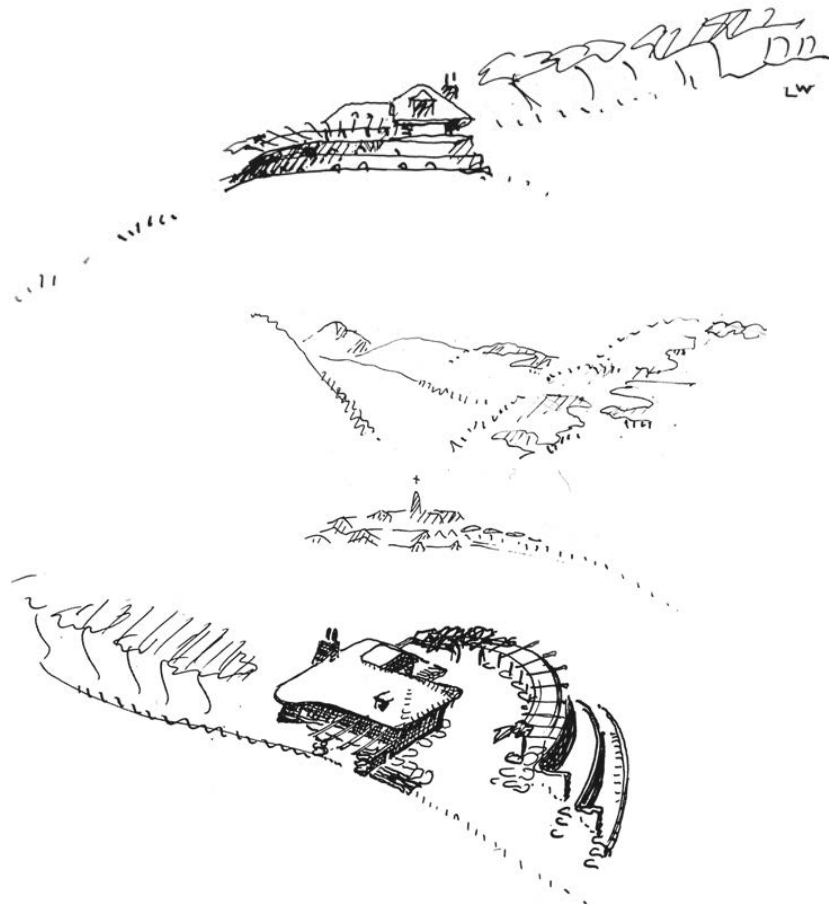
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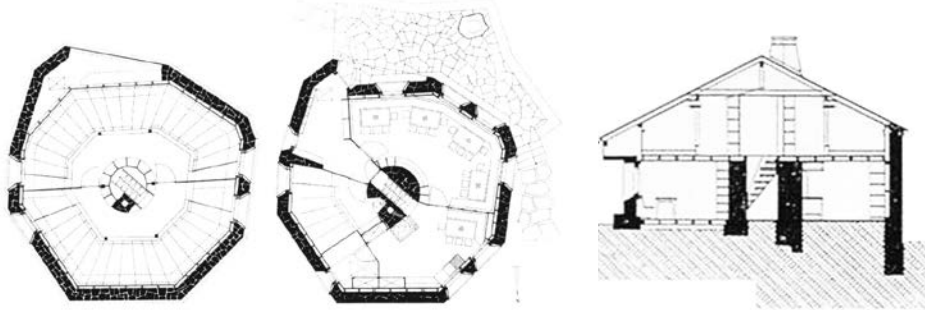
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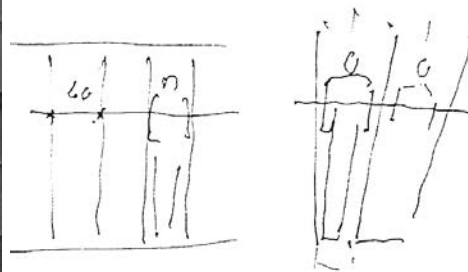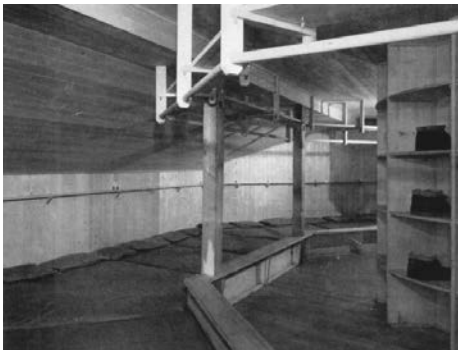
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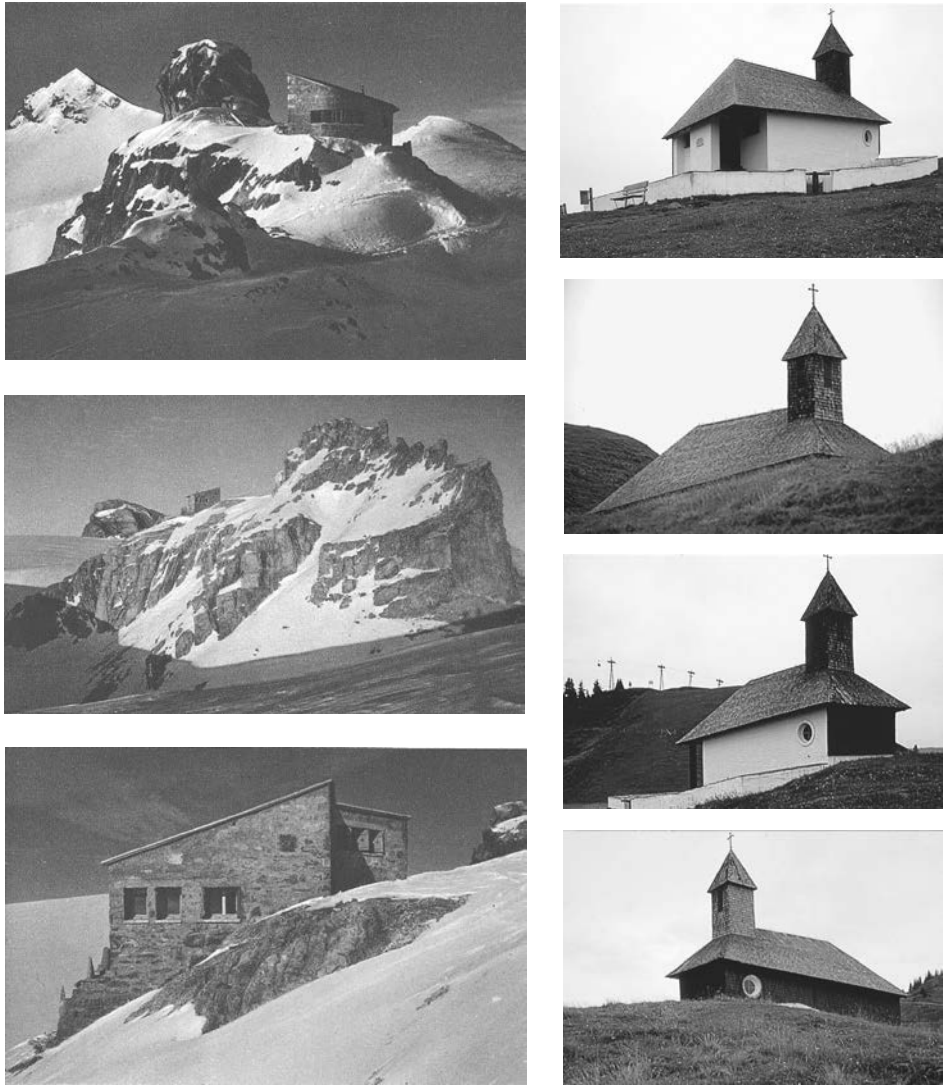
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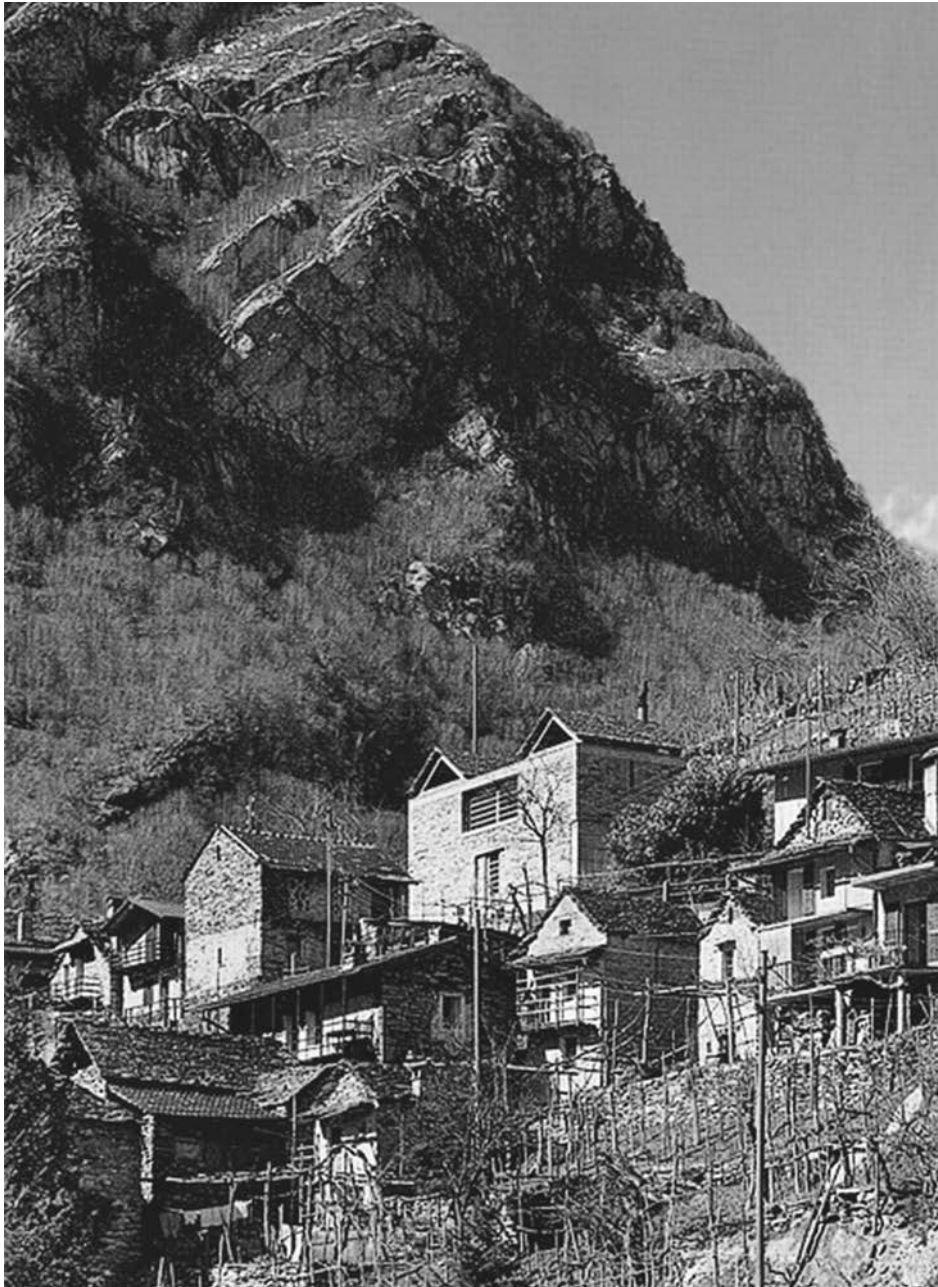
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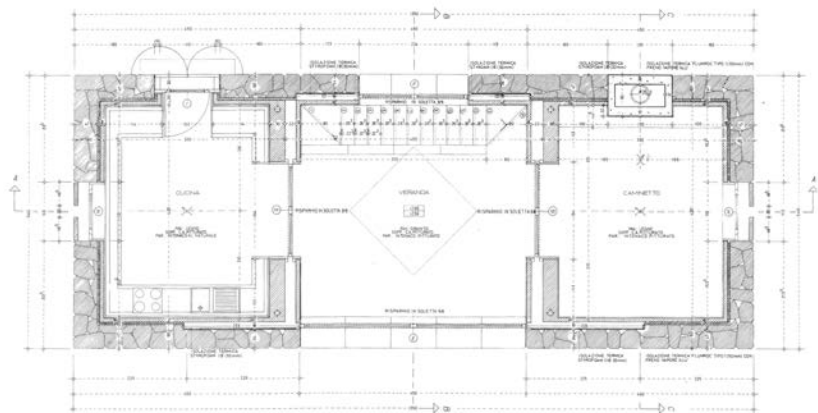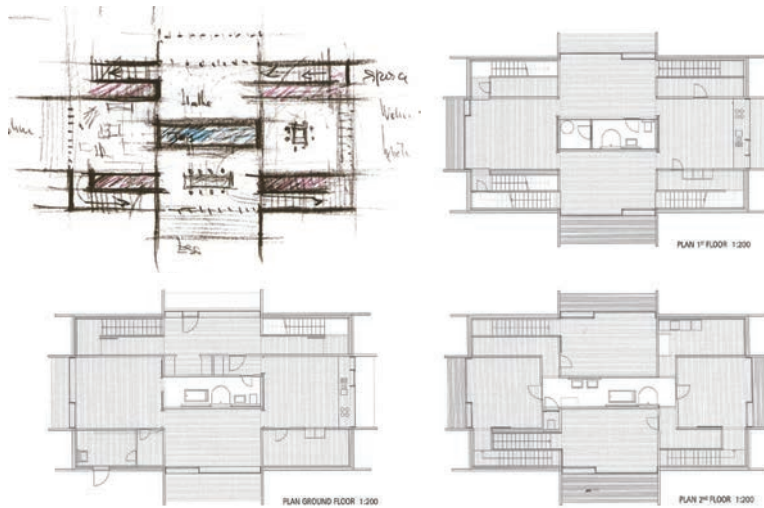
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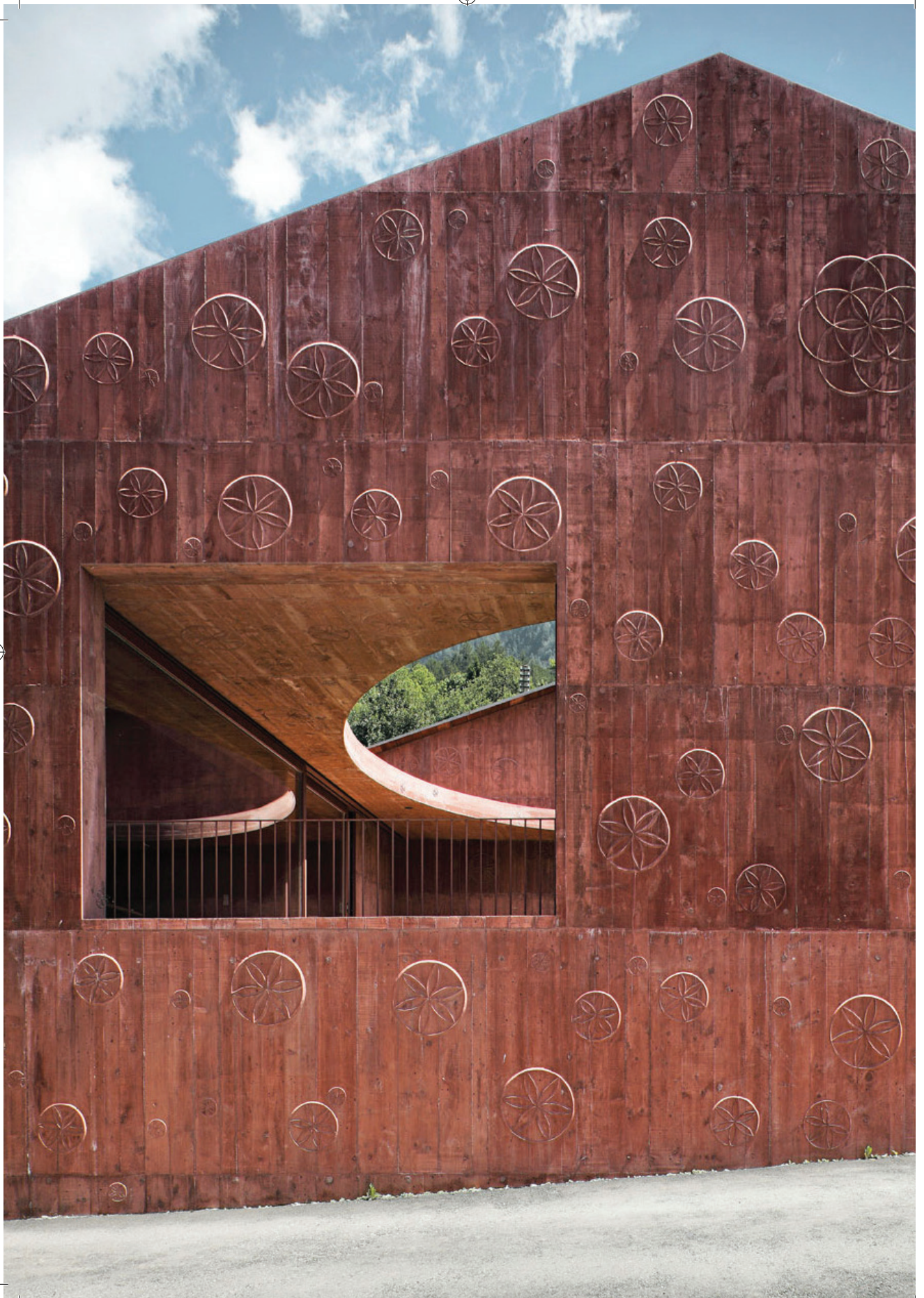
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Photo by Dominique Marc Wehrli ©
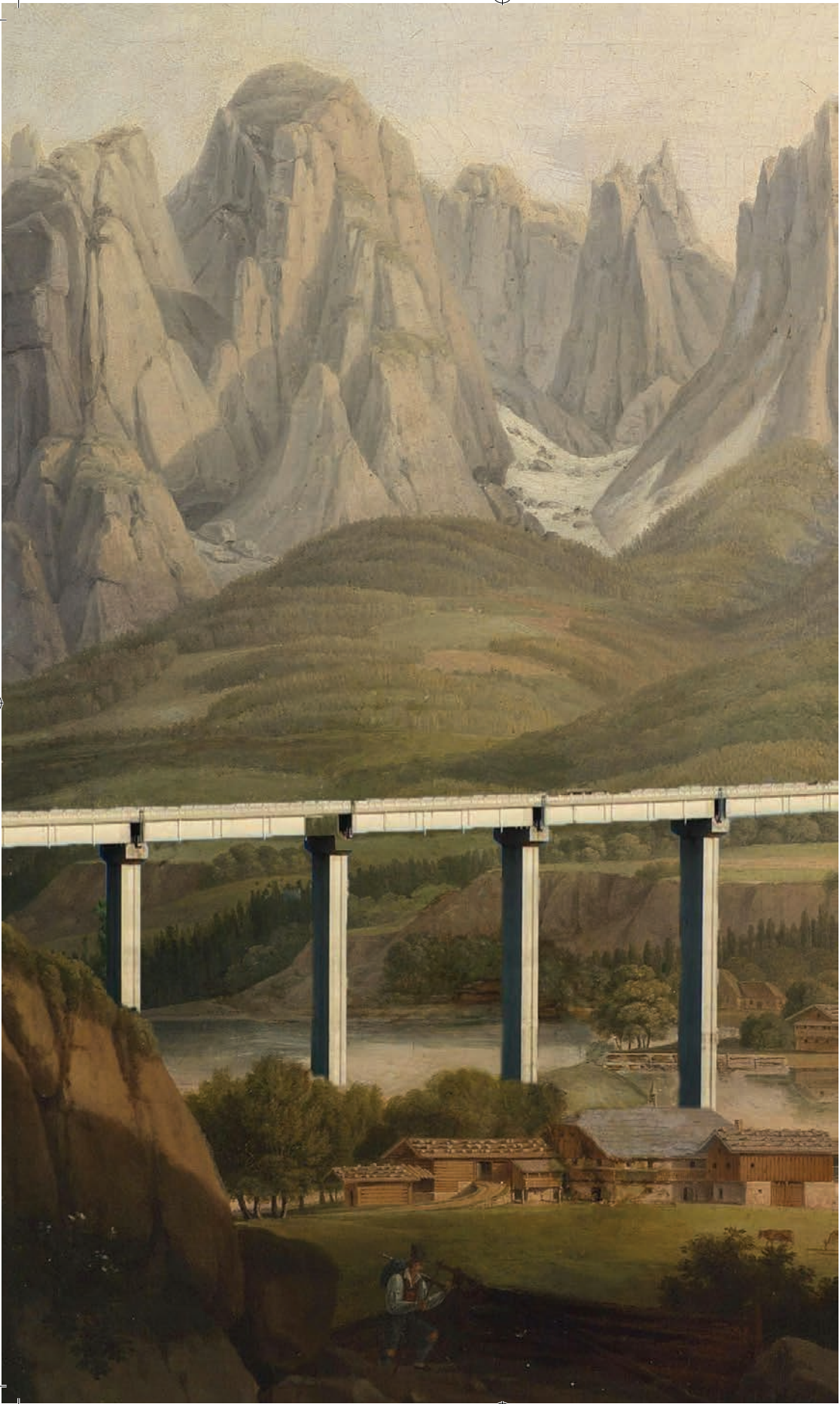
The legacies of the Alps.
Landscapes, territories and architectures to reactivate
Roberto Dini

Still today there is the lingering image of the Western Alps as a hyper-infra-structured corridor instead of pure landscape to be preserved – an image that is not helped by the examples of alpine settlement found in the area.

On one hand, there is the high-density settlement of the urbanised and industrialised valley floor, together with the intense use of areas for winter sports, while on the other there are those large portions of land which, though they have none of the benefits of being classed as protected areas, have suffered the effects of gradual depopulation and abandonment.

As well as the anthropic pressure of some areas and the abandonment of others, we have witnessed an equally dramatic and widespread phenomenon of the "patrimonialisation" in these areas. Since the post-war years, the processes of modernisation were in fact supported by the reinvention of the alpine "tradition", meanwhile guaranteeing the idea of conservation of the environment and local identities in building up a kind of "background scenery" for a tourist and hiking district[1]. This led to local policies which focussed on preserving the homogeneity - or presumed homogeneity - of the mountain landscape, triggering a banalisation of areas while covering sections of the territory that had been colonised following a clearly urban logic with "international rustic"[2] stylistic elements.

Just think, for example, how – paradoxically – the tendency to artificially revive the alpine territorial identity with the "typical" and folkloristic

1   A. Lanzani, *I paesaggi italiani*, Meltemi, Rome 2003.
2   A. De Rossi, *Luoghi e carattere. Appunti sui paesaggi costruiti del Piemonte sud-occidentale*, in A. De Rossi, G. Durbiano, F. Governa, L. Reinerio, M. Robiglio, *Linee nel paesaggio. Esplorazioni nei territori della trasformazione*, UTET, 1999.

characterisation of buildings was not reflected in the construction of the settlement models themselves. If, in fact, the "patrimonialisation" has, over time, taken on an identification role for local populations encouraging the professedly aesthetic use of tradition in the architectural languages, this was not the case for settlement models that on the other hand continued to develop indiscriminatingly following obsolete settlement logics[3].

The traditional conceptual setting that considers the mountain environment as a marginal area with high landscape value – compared to the valley floor urban areas that are economically strong but less representative from the environmental point of view – should therefore be discussed once more through more articulated configurations that instead take into account the complexity of the settlement situations of the mountain valleys.

To this end, we should remember the many possibilities offered by the hypothesis of the so-called "third path"[4] which distanced it from the radical contrast that on one side saw forced modernisation and on the other the ideological refusal of transformation[5].

As Camanni reminds us, in the first hypothesis in fact the alpine territory would be reduced to a very weak economic, cultural and political role while remaining a complementary space to large metropolitan areas. In the second hypothesis, on the other hand, isolation from the economic hubs of the plain-lands would endanger the very existence of the mountain as an autonomous working and living area, leaving it as merely a tourist territory and thereby causing it to suffer further intense exploitation of its resources.

And it is in this particular situation that the theme of architectural legacy of the mountain takes on a crucial role.

Architectural heritage in fact may be considered the joining element between the past and the future, the glue to join conservative logics and transformative processes, supra-local representations and local identities, the old and the new.

In this sense, heritage - as Carmen Andriani also stated in one of her recent essays - should however be intended as something that envelops daily life. Not so much as a value in itself but more than anything for its ability to establish links between different places and times taking up an active part of the transformations, thus avoiding the risk of incurring nostalgic and professedly aesthetic visions[6].

3   R. Dini, *Grande valle, piccola patria*, in A. De Rossi (edited by), *Grande Scala. Architettura, politica, forma*, List, Trento-Barcellona 2009.
4   E. Camanni, *La nuova vita delle Alpi*, Bollati Boringhieri, Turin 2002.
5   W. Bätzing, *Le Alpi. Una regione unica al centro dell'Europa*, Bollati Boringhieri, Turin 2005.
6   C. Andriani, *Introduzione. Ricordo al futuro*, in C. Andriani (edited by), *Il patrimonio e l'abitare*, Donzelli, Rome 2010.

All of these issues, furthermore, place themselves in the current economic situation that has put at risk the premises on which decades of territorial policies are based, but also back in play the vast architectural heritage that already exists in the valleys and it is underused: from historical villages in a state of abandonment to the constructions built in the years of "cementisation", such as productive settlements, infrastructures, housing on sunny slopes, sports facilities, tourist accommodation.

Therefore, a "plural" heritage from a multitude of backgrounds[7] and characterised by different "inertias"[8], sometimes seemingly unchangeable, in other cases a flexible material that can be easily adapted to the measures of time.

In any case, it is the result of multiple representations from different viewpoints that stratify over time and which must be taken into account.

Alpine territories today therefore find themselves in a favourable position if they can virtuously overturn these conditions of apparent unchangeableness and marginality that seem to be a long-term prerogative in established representations.

As a previous essay on the reuse of the construction and territorial heritage analysed, marginality is the very element of distinction that allows other "fixed capitals" to be brought to a lower energy level than in other contexts[9].

New opportunities for life and work that "low-density" territories can offer[10], more competitive real estate compared to urban areas, availability of transformable construction objects, environmental and landscape quality: these are just some of the elements that may make the mountain context more operable and adaptable from the settlement point of view during a recession.

A new challenge the project faces is to focus on some cross-scale strategies which, moving away from the reactivation of parts of the territory and of building and infrastructural heritage that have fallen into conditions of underuse, allow us to outline actions to be undertaken on the territorial scale. This means strategically reactivating parts of that vast legacy of abandoned and underused dwellings in which territorial ratio is linked to economic development and technological and social innovation, aimed at increasing the quality of life in mountain areas.

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7   C. Olmo, *Conservare le storie*, in C. Andriani (edited by), op. cit., 2010.
8   B. Secchi, *Un atteggiamento critico verso il passato*, in Andriani C. (edited by), op. cit., 2010.
9   P. Antonelli, F. Camorali, A. Delpiano, R. Dini, *Di nuovo in gioco. Il progetto di architettura a partire dal capitale fisso territoriale*, List, Trento-Barcellona 2012.
10   For more on this theme see F. Corrado, G. Dematteis, A. Di Gioia (edited by), *I nuovi montanari. Abitare le alpi nel XXI secolo*, Franco Angeli, Milan 2014.

An extensive project which takes into account the architectural heritage and fixed territorial capital in its entirety carefully evaluating all the opportunities to make use of what is already there and all possible ways of reconversion or transformation.

A project that, unlike everything undertaken so far, should not necessarily be intended as implementative but which moves instead from subtraction and retraction. A plan therefore is urgently required, even in the alpine territory, for the correct and aware "withdrawal" that takes into account on one side the legacy on the other the real resources available to transform it. We should thus start reflecting on the fate of fixed territorial capital in its entirety, evaluating how to use what is already there and the various forms of reconversion and transformation in regards to the new economic, social and cultural needs.

We have spoken of heritage as a "junction" insofar that it can represent that element that combine different temporal horizons and scales, multiple representations and views, and heterogeneous materials and spaces.

Firstly, the settlement and infrastructural heritage constitute the junction between the city and mountains, and between the local and supra-local dimensions.

By now, everyone agrees on the consideration that from the socio-economic viewpoint, the relationship between city and mountain is one of reciprocity; from the settlement point of view the relationship between these two setups must yet be further developed and detailed.

This means reviewing the methods with which urban settlements have colonised mountain territories to re-establish where possible the effects of the often violent permeation between the urban settlements and the alpine environment.

The already existing settlement and infrastructural heritage can find be localised for example if reinstated in service to the local communities as services to support the economic and productive activities that could be re-established within the mountain context (innovative businesses, research, artisan production, spin-offs, etc.), or in the conversion of infrastructure, for example railways, looking towards sustainable mobility and tourist valorisation.

And we can, in fact, find another strategic possibility for mountain territories by rewriting the very models of alpine tourism.

The strength of the tourist-sports heritage in fact lies in being a place in which settlement and environmental and natural spaces meet. Skiing facilities (used and underused), holiday homes and resorts (both occupied and unoccupied), roads and infrastructures, make up the last human garrison before the inhabited territories, the border between the urbanised and natural areas, the threshold to great heights and environmental

attractiveness. This extraordinary landscape value is an indispensable resource in overcoming the ideal of mere scenery to interiorise it in a more complete idea of living, in which the quality of the environment becomes one of the strong points of the settlements.

But mountainside architectural heritage may especially be intended as a point of union between old and new settlement models, between the past and future of local cultures and economies. This characteristic is particularly clear if we observe the recent examples of recovery of historical mountain villages that have fallen into abandonment. The redevelopment of the existing historical heritage in fact presents elements of interest where it is able to set up a system with the innovative micro-economies of the alpine world: high quality tourism, new forms of agriculture, new forms of living, projects to improve local cultures and identities, etc.

A central point is thus not so much the architectural renewal of isolated elements and buildings but the foundation of a wide reaching strategy based certainly on environmental and architectural quality but which also implies the involvement of local institutions, of the native population and new inhabitants, of local experts and designers, the valorisation of local productive and economic resources, the support of cultural initiatives, the establishment of collaborations with excellence center.

Basically to create transversal opportunities that can trigger brand new projects: history, landscape, agriculture and farming, tourism, artistic and architectural heritage, human and social capital.

To this end, even the theme of energy requalification may also today seem an important chance to start recovering the existing construction and settlement heritage in proportion with the resources of the alpine territory[11].

The challenge will be to reason more and more within the viewpoint of a real urban/energy redevelopment strategy that unites the use of local resources (sun, biomasses, water, etc.) – in proportion to the their effective availability and local needs – with the settlement and architectural transformations of the underused building heritage. The most interesting fact that has come to light in recent proposals to redevelop the alpine territories is in fact that of a gradual extension of the concept of "energy efficiency" that is not only linked to the performance parameters of the individual buildings but which instead looks towards a broader idea of sustainability based on criteria such as the impact of construction on the environment, the availability of resources in the territory, the quality of life of the inhabitants, the maintenance of local production supply chains. To this end, a

11   See the recent AlpBC research in M. Berta, F. Corrado, A. De Rossi, R. Dini, *Architettura e territorio alpino. Scenari di sviluppo e di riqualificazione energetico-edilizia del patrimonio costruito*, Piedmont Region, 2015.

number of projects – for example transnational cooperation programmes such "Alphouse" and "AlpBC" (within the ambit of Alpine Space), or even "Constructive Alps" award for sustainable constructions which has by now reached its fourth edition – work specifically in this field.

In conclusion, we can affirm that, in order to survive and take on an ambitious role as resource for the territory, the architectural heritage of the mountain requires innovation, not in the technical sense but more in the view, approach, and methods of comprehension and treatment.

Not therefore the theme of heritage in the conservative sense, but an approach in which conservation is a necessary part of a diachronic strategy that has, above all a temporal depth that is able to integrate the legacy in a new vision.

Another fundamental aspect is that of treating the theme of heritage inclusively, starting up a collective project that translates the above-analysed needs – by now largely shared in statement – into physical images, figures, territories, overall visions, putting the expertise of architecture and urbanism to the availability of the local communities and working together with the territory to build up new horizons and possibilities for tomorrow's mountain.

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Fig. 1. Valter Scelsi, *Autobahn, Storie Naturali. Pseudo-architectural bitmap images*, 2015
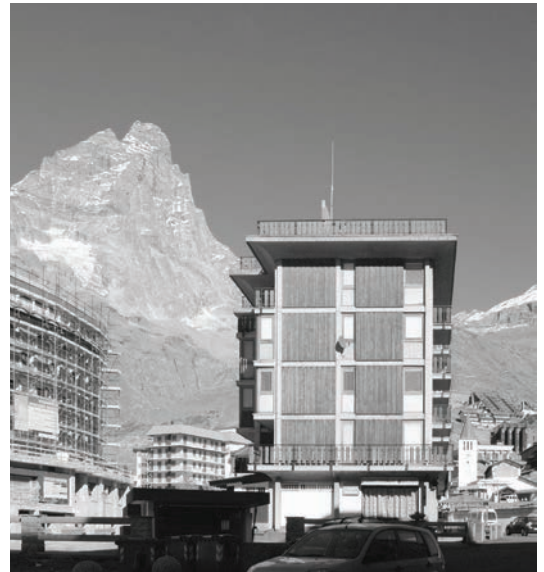
Figg. 2-3. Cervinia. Breuil-Cervinia, 1976-2005, Sequence of photos highlighting the urbanisation process, from *Guardare da terra. Immagini da un territorio in trasformazione. La Valle d'Aosta e le sue rappresentazioni*, 2006

Fig. 4. Breuil-Cervinia, Valle d'Aosta, contemporary landscapes.
Photo by Pietro Celesia ©

Fig. 5. Varfey village, Valle d'Aosta. Photo by Pietro Celesia ©

Fig. 6. Chamois village, Valle d'Aosta. Photo by Pietro Celesia ©

Fig. 7. Terraced landscapes in Valle d'Aosta

Fig. 8. Valley floor in Saint-Vincent, Valle d'Aosta. Photo by Pietro Celesia ©

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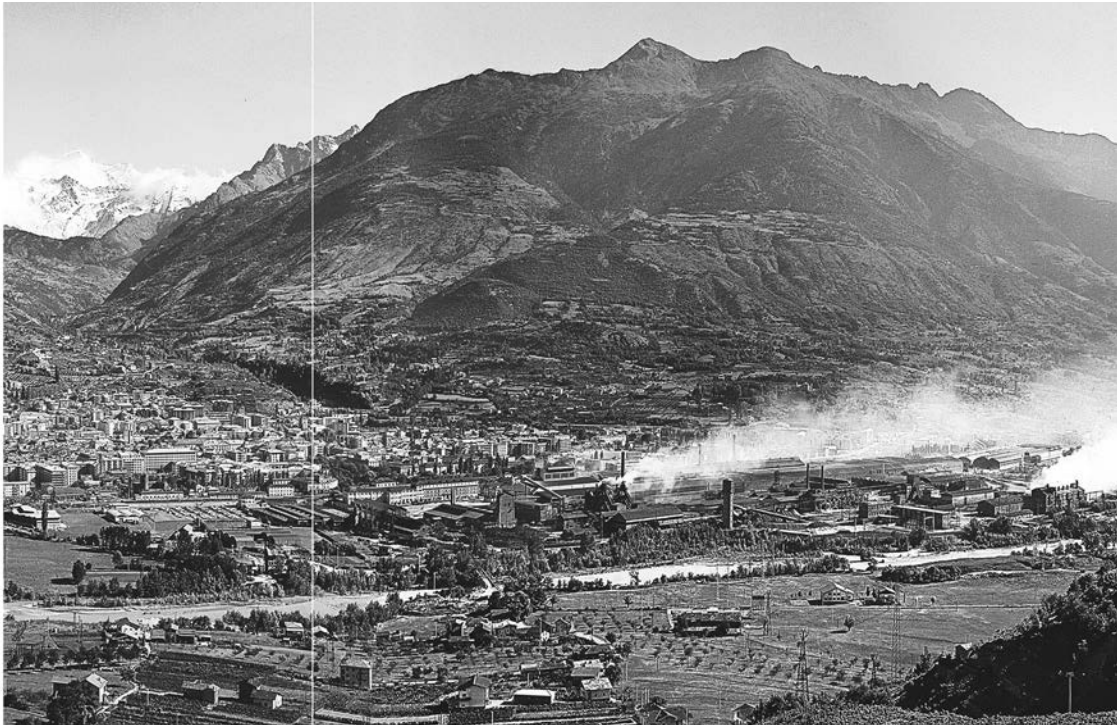
Requalifying the mountain territory.
Projects and experiences in the Western Alps

Paolo Mellano

Nowadays, talking about alpine architecture seems to have become something of a trend: mountain themes, and particularly construction in the mountains, are featured in architectural publications, conventions, study days, exhibitions, competitions and awards. An *International Year of the Mountain* has even been proclaimed (in 2002).

Perhaps never more so than now has the matter of saving the natural beauty of the alpine region been so universally recognised, precisely when this beauty is being so seriously threatened and, in some cases, even lost.

Focusing on alpine architecture today is probably somewhat anachronistic, considering that, since the end of World War II, increasing numbers of people have gradually moved away from the mountains: what use is the study of the rare survived form of construction, destined to become the prey of professional speculators, constantly seeking tourist destinations to exploit as much as possible, or "citizens" (meaning people who live in cities), most of whom are interested solely in buying the few remaining mountain dwellings to turn them into super-technological buildings where they can spend the weekend surrounded by all the comforts of modern life? Why continue believing that contemporary architects can think of projects which, using a current, contemporary language, provide tangible solutions to the landscape and the local traditions of the alpine villages?

If there is still any real interest in the mountains, it seems to be linked to the fact that the *highlands* guarantee man the chance to enjoy values that are hard to find elsewhere, such as clean air or beautiful landscapes and offer the possibility, albeit not for long and only in certain places, to build a house at a relatively low cost, especially in comparison to prices in the city.

For as long as the nature of the Alps was moulded, for centuries and centuries, by its inhabitants, to transform it into the cultural landscape which we still see traces and appreciate the values of today, the mountains were preserved from all the devastation we all know and hate.

Unfortunately, while it's true that, in recent years, many masterpieces and works of art have been created, the link between the architecture and its inhabitants has become so worn as to make it synonymous with the destruction of the environment.

Nature, for its part, has already shown the first signs of alarm in reaction to this careless exploitation of the environment by man, which are absolutely despicable from an ecological point of view: the abandon of pastures, the increasingly extensive coverage of the ground with concrete, uncontrolled deforestation, etc., are also causes which contribute to the frequent environmental disasters that we have almost become used to in recent years. The huge masses of water that rain down on us in spring and autumn fall on ground which is becoming more and more impermeable (due to a lack of care for the woods, the surfacing of the roads and carparks, and the construction of buildings) and run down to the valleys without being naturally absorbed by the ground, eroding the mountains and blocking the streams and rivers, which regularly flood their banks.

The situation really seems to be severely compromised, and I think that any type of analysis (environmental, forestry, hydrogeological, climatic, urbanistic, sociological, demographic, economic, etc.) carried out in an alpine environment today, would have negative results.

The slogans of the environmentalists and the general attitude of indignation adopted by the media depict Nature as an untouchable, uncontaminated utopia, above everything there's a widespread conviction that all human intervention should be ruled out.

It seems almost as though we've reached the point of no return, and the temptation to leave everything as it is, to avoid causing more damage, seems to be the only solution possible.

However, paradoxically, while on one hand the desire to live in the mountains – actually residing there – seems no longer to exist, on the other, the economic interests in the exploitation of the alpine regions is enjoying a very intense season, at least in Piedmont: from the 2006 Winter Olympics to the successful recovery and requalification of the alpine villages (e.g. Paralup and Ostana to name just two), and the government's infrastructural plan, which envisages not only the much-disputed high-speed railway line (TAV) but also the doubling of the Tenda tunnel, as well as the tourist and food & wine circuits for the enhancement and the promotion local products (Slowfood, Eataly, etc.).

There is a strong tendency towards doing things, towards building, which

goes beyond any theory of defending, of "freezing" the *status quo* and this pushes towards the channelling of financial resources to places which, almost by definition, have always been poor.

It could be an opportunity – possibly the last – not to be missed: because, once again, we find ourselves faced with a question that cannot and will not go unanswered. This time, however, the question gives the impression that it is no longer "just" quantitative (the demand is not only for hotels, houses, sports facilities, restaurants, etc.) but also qualitative. This means that the expectations of investors today are possibly focused also on prestigious operations, capable of meeting the expectations not only of entrepreneurs and users, but also of the public opinion, the mass-media and politicians.

On one hand, creation of awareness of environmental problems has reached very high numbers of people, and it is no longer possible to pretend that nothing has happened, and repeat the same devastating activities carried out in the past; on the other, I think that the quality of the architecture and the landscape have become *values* – economic of course, but also social – which are absolutely essential.

It is necessary to start building again in the mountains, but how?

In the past, modern architects – such as Mario Cereghini – have tried to establish criteria, behavioural rules, methods of using materials to encode the designing and building procedures in the mountains. Others – Schmittehenner, Welzenbacher, Baumann, Mollino and Krüger, etc. – with their works, have led critics to identify a current, a movement of Alpine Architecture.

Bruno Reichlin, however, has written that this is cultural construction, a cataloguing "after the event", to draw up a working theory of architectural criticism:

> mountain architecture […] is not a natural secretion of the landscape and people, and not even the mountain context – be it moral or ideological – promises a federationist afflatus, a natural conversion of intents.[1]

Contemporary alpine architecture is not so much a movement characterised by projects and constructions which are deeply rooted in their "mountain nature" as by a temporary but structured combination of works which manifest knowledge that can be shared, which are deducible and self-explanatory.

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1   B. Reichlin, *Die Moderne baut in den Bergen, When modern architects build in the mountains* in C. Mayr Fingerle (edited by), *Neues Bauen in den Alpen, Contemporary alpine architecture,* Birkhäuser, Basel-Boston-Berlin 1996.

Reichlin also says:

> mountain architecture isn't created simply on a whim and detached from a
> cultural convention, there are very few objective reasons why something has
> to be imposed as a construction "suited" to the mountain context.

If we admit that alpine architecture cannot be anything more than an
"easy" classification, then the question that we began with still requires an
answer: how to operate in a modern alpine context?

At this point, however, we have to clarify the concept of *modern*: when
can we say that a construction is modern? If we flick through the latest
architectural journals and magazines, on one hand it looks like we're going
fifty years back in time, to the International Style: strip windows, flat roofs,
pure volumes, etc. On the other, however, it seems almost that *modern*
has become synonymous with strange, extravagant. More and more of-
ten, those constructions that seem to challenge the laws of nature, exploit-
ing technological innovations to enhance the supporting capacities of the
materials, to the point of producing extreme, unbelievable and sometimes
even ridiculous solutions to simple, ordinary problems, seem to be typical
of the current - *modern* – day.

The vertical wall, the span roof and right angles seem to have been
banned by critics and those who use them in their projects are usually seen
as old-fashioned, dated.

Particularly in the Swiss and Austrian Alps, the phenomenon has taken
a definite directions. Here "trendy" architects seem to prefer operational
lines which, starting from the forms of rationalist architecture, produce
buildings which are sometimes beautiful, usually function and almost al-
ways clearly detached from the context, uprooted from the specific nature
of the location.

Yet I don't think that modern means abandoning tradition, denying the
values that characterise the site, or forcefully imposing shapes and materi-
als that have nothing to do with the local culture and collective memory.

Nor should modern be synonymous with fashion. Rather than relating it
to temporary trends, it should be related to time and uses. Modern can be
used in relation to a building that meets the needs of the determined period
of time in which it is built, to the needs of those who commission it, who
exploit all the possibilities offered by technical methods, but that doesn't
mean that it should manifest its impertinence at all costs!

On the contrary, succeeding in combining innovative techniques and ma-
terials with the values of places, history and tradition could become a chal-
lenge to take up in order to build the mountains of the future, to operate in
places that have been abandoned.

Projects, then.

We architects see talking about our project experiences as being a bit like telling a story. The way I see it, every project represents a story, because it is set in a specific space and time, always implicating the relationship with a place – the *site* – and the involvement of several stakeholders – the commissioners, construction firm owners, the officials of the departments appointed for the approval of the project, and then the users, those who are going to live, for a moment or a whole life long, in the places we design.

The stories I want to tell you today are about four works – carried out, as always, with Flavio Bruna – all set in the same area (around Cuneo, in two of its valleys, Valle Gesso and Valle Stura) and sharing the same point of reference (Parco Naturale delle Alpi Marittime, which is the commissioner in three of the four works, while it takes a backseat in the fourth). Moreover, in two cases out of four, the initial foundations are also the same, because both the Visitors Centre at Terme di Valdieri and the operational premises at Entracque have been created in the ruins of some small military barracks, the remains of the Vallo Alpino. Lastly, all four projects are destined to house guests and provide services.

They might seem to be four very similar projects, yet they look very different. Why?

Why do the same two designers, in the same territorial environment, build four buildings (more or less for the same commissioner, and for similar uses) that are so different?

The answer might seem banal: because each case has its own story, the projects were carried out at different times and in different places, despite being close together, so they were conceived on the basis of separate considerations which led to exceptionally diverse results.

This is true: but one of these reasons is more important than the others, and it is shared not only by the works in question, but by every architectural project that – here in particular – I would like to analyse. It is the *landscape*, or the design of the landscape. All too often this subject has been rendered banal, while on other occasions it has been emphasised, almost always with the sole aim of legitimising one design solution as opposed to another. Very rarely do we talk about landscape considered as a whole, as a combination of architecture and nature, as a *unicum* of building and context.

First of all, I believe that the landscape isn't just what we see, but perhaps also the combination of our points of view on what surrounds us, the mark of our perspectives on things and the design of how we would like them to be. To understand and design the landscape, we have to immerse ourselves in it but, at the same time, we have to succeed in seeing, imagining how it could be, how we would like it to be.

The landscape isn't only the backdrop, the setting of our daily lives. I see it also as an entity, an image reworked by the memory of sensations linked to experiences in places, through the scenes of a film or the interpretation of the pages of a novel that describes it. For the people of Piedmont, for example, the landscape narrated in the books of Cesare Pavese or Beppe Fenoglio is much more than a mere literary description: it often also represents a way of being, an attitude towards others, an emotion that can escape the mere observation of places.

The landscape can manifest itself with different tones. Every one of us can have a subjective perception of the landscape which is related to time, the light or even moods.

The landscape is somehow part of our being, we have to inhabit it.

Perhaps it is because we have now realised that we have to dwell in this landscape whether we like it or not, we could say that this *attention to living* has become pregnant, due to the very fact that it is absent, because we've noticed that the landscape isn't a plan, an excess, an absolute, but something which is missing, an absence. When we design in such strongly characterised landscapes, like the alpine areas, the force of nature sees to take over, almost as though it intimidates us.

How do we have to behave? As architects, how can we intervene?

I think that architecture has always to offer a *design attitude*: the ability to propose synthetic images which simultaneously interpret nature and the profound character of these places, already engraved in them, creating a deep awareness while introducing differences, alterations which are possible because of what already exists.

In mean, what if we try not so much to install our buildings in a *site*, not to camouflage them? What if we think that these buildings have to provide "hospitality" – as defined by Edmond Jabés[2] – to those who live in them, rather than just containing them? I think that this could make things more interesting, opening up languages, enriching them, going beyond what has already been done and beyond what we already know.

Today we need to carefully read the differences that make up our knowledge and take on the question of *living* that emerges, to offer a responsible, authentic, meditated (scientific) and, far from easy answer.

To give this answer, we have to pool our, albeit limited, knowledge, including that developed in other fields, but especially that consolidated in the often suffered events of our everyday lives.

The design-related attitude that I mentioned earlier isn't exclusive to architecture of course: it is a behaviour that architecture and urban planning share with geography and history, far removed from the objectifying

2   E. Jabés, *Il libro dell'ospitalità*, Raffaello Cortina Editore, Milano 1991.

paradigms of the description, the datum and the document. Of course I don't mean that we should abandon that foundation of architecture which has been built throughout history, which has to remain faintly visible as the basis of all our operations. It has to take on these differences in the rich and founding perspective posed by the question of living.

In other words, it is also necessary to open the languages of our field towards other areas of knowledge, other cultures and others in general, carrying out our exploration on all scales, questioning geographies and histories but also technologies and economies, details and assessments.

Multiple explorations, at different project scales and according to different views, which – I think - have to share a *designing attitude* aimed at making the places designed hospitable, making them liveable. An attitude which leads us to identify with the reality of places with the awareness, and possibly also the humility, that we are seeing architecture from the point of view of those who live in it, of designing the landscape looking at it from the inside too, so that buildings can return to communicate with their inhabitants, to comply with the image perceived by their users, helping to improve environmental quality.

In a beautiful work by Caspar David Friedrich[3], which portrays a foggy landscape seen from a hill, the artist's aim was to include a person (himself?), seen from behind, looking towards the horizon, in the painting (and consequently in the landscape). And I think, that we, like that person, should try and *enter the landscape*, becoming part of it rather than just observing it from the outside, beyond the frame. To design the landscape, I think we have to eliminate the frames, open the windows and understand that we are a part of those landscapes that we design.

In conclusion, I would like to mention another keyword, which I see as essential to those who work on the landscape.

I think that, in architecture, it's always necessary to seek a relationship with *tradition*, with the specificity and cultural identity of a given place. The strength of identity lies in the cultural or anthropic roots, like a combination of special characters, which are historically and traditionally transmitted in specific places.

Architecture is a particular condition of the expression of structured and collective identity, linked to the nature of the community, but also and above all to environmental, climatic and settlement-related restrictions, the geographies of the places, the history and their constructive culture.

The reference to the cultural identity, to tradition can definitely not be considered as a nostalgic trace, as a vernacular choice, or as static; it should

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3   C. D. FRIEDRICH, *Wanderer über dem Nebelmeer*, 1817 (kept at the Hamburger Kunsthalle).

be seen as an evolving character, which outlines its distinguishing features with a view to the continuation of knowledge, in relation to current times and enriched with contaminations that are as continuous as they are inevitable.

A patient study of these aspects could form the basis of the research, experimentation and innovation, without interruption.

Innovation is a word that directly and almost univocally suggests the idea of technology linked to matter and the processes of its transformation.

We need to try and fully analyse the knowledge of new construction systems and new materials with a curious approach, trying to modulate and graduate them to the specific situations, implementing a contemporary attitude, which goes *beyond modernity*, working on the links and relationships that are created between *form, function and design*.

On a case by case basis, in relation to the specific qualities of each place: there are no hard and fast rules and no manuals. This is the main reason why the four buildings mentioned above are so different.

Because I think that every place, every landscape has its own specificity, identity and physiognomy; Luisa Bonesio writes:

> there is no one single solution applicable in any place or culture, and there isn't even space for subjective "creative" initiative. The measure of the place, its *genius loci*, dictates implicit rules that – we can state – are respected when the result has a good shape and a deep and stable harmony, which doesn't detract from the place's physiognomy, allowing it to be recognised in every operation.[4]

It's no mere coincidence that the way of building (and living) in our alpine valleys has stayed the same for centuries and has been passed down to the present day: those typological and constructive solutions were and are still those best suited to an environmental context characterised by particularly harsh and difficult living conditions.

Adolf Loos wrote:

> Pay attention to the shapes used by the farmer when he builds things. Because they have been passed down in the wisdom of his forefathers. However, try to discover the reasons behind that shape. […] Don't think about the roof; concentrate on the rain and snow. This is how the farmer thinks and consequently builds things in the mountains […] Don't be afraid of being judged as old-fashioned. Changes to traditional building methods are allowed only if they represent an improvement, otherwise adhere to tradition.

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4   L. Bonesio, *Geofilosofia del paesaggio*, ed. Mimesis, Milan 2001.

> Because the truth, even when it's centuries old, has a close link to us that the lie that walks alongside us.[5]

Of course, this doesn't mean that we cannot invent anything, that everything has already been said and that every research is pointless. But every research has to start from what already exists, from the verification that the solutions applied by our ancestors were applied for a reason and they've stood the test of time, because those reasons were strong, with solid foundations, rooted in the territory.

We can replace the trunks of chestnut trees with lamellar wood, stone walls with reinforced concrete, larch wood planks with sheet metal, and then create new shapes with the computer. But these new shapes and technologies have to communicate with the world around them, and find a new harmony with them and, quoting Luisa Bonesio once again, the *right measure*.

And our stance as architectures in relation to the theme must be mobile, flexible, never absolute, unquestionable. I think that our *job* is real because it is at the disposal of others, in a specific place: the architect cannot be an authentic inventor, almost an alchemist, shut away in his laboratory among mysterious ingredients, with procedures that only he knows. On the contrary, I think that the technologies, constructive elements, and details that have to form a language at everyone's disposal, understandable by everyone, have to become something more than a simple node in a performance-based system: a beam, a door or a window, and a balcony can even be a gift – in my opinion – offered to those who look at, use and live in the house where they are installed.

Because – let's not forget – the houses, places and landscapes that we design are going to be inhabited by others, and we only and always have to think about them.

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5   A. Loos, *Regole per chi costruisce in montagna*, in Id., *Parole nel vuoto*, Adelphi, Milan 1972.

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Fig. 1. Flavio Bruna, Paolo Mellano, *Visitors centre of Parco Naturale delle Alpi Marittime* at Terme di Valdieri, 1989. Photo by Giorgio Olivero ©

On the next page
Figg. 2-3. Flavio Bruna, Paolo Mellano, *Visitors centre of Parco Naturale delle Alpi Marittime* at Terme di Valdieri, 1989-2000. Axonometry, cross section and view of the front
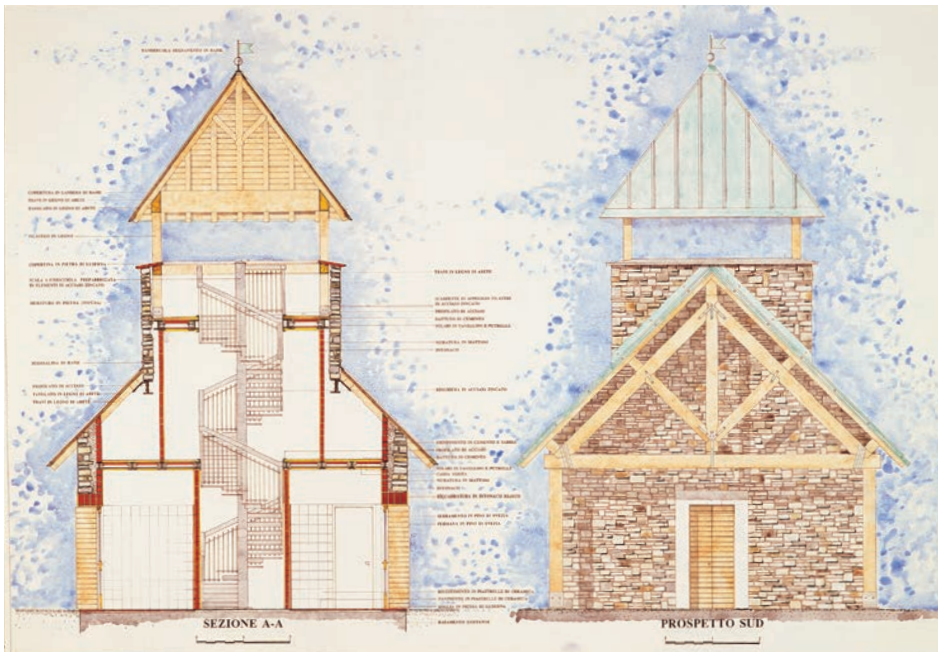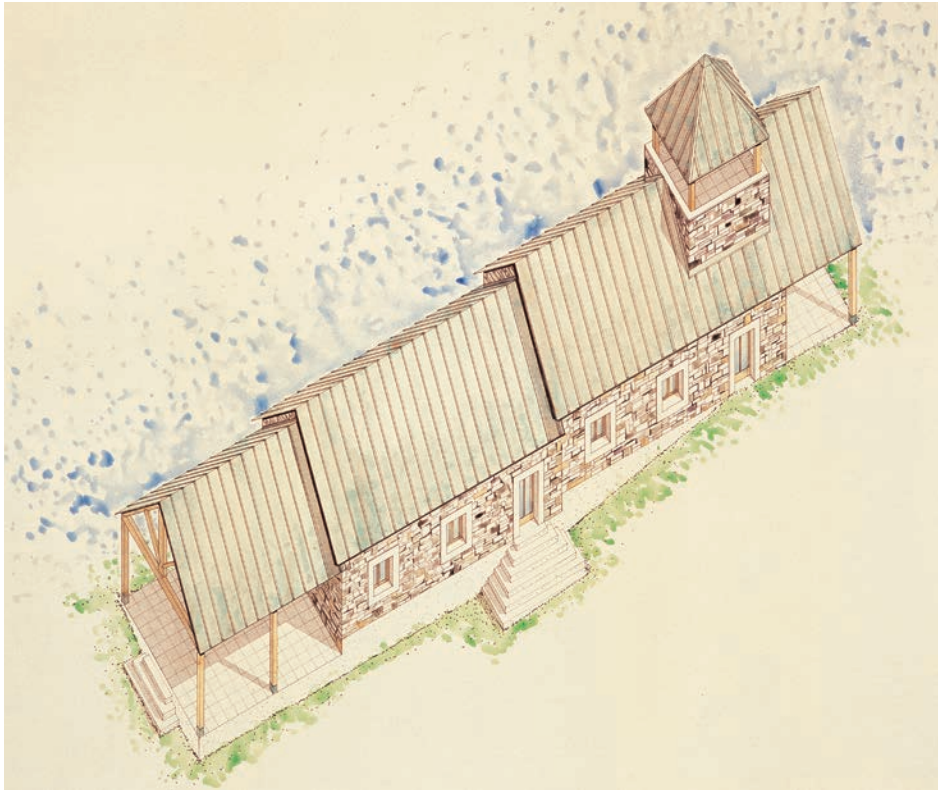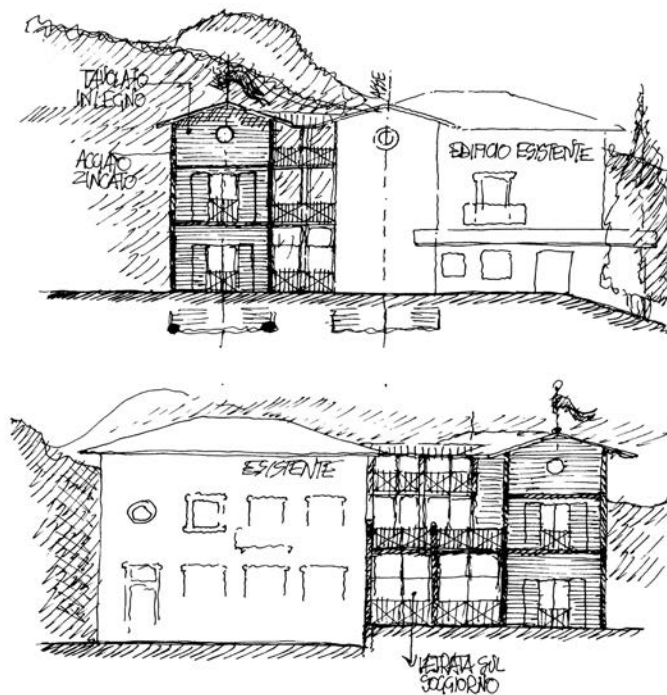
Figg. 4-5. Flavio Bruna, Paolo Mellano, *Hostel of the Parco Naturale delle Alpi Marittime* at Trinità d'Entracque, 1998. External view and sketches

Building sustainable development policies for the Alps

Federica Corrado

Towards a new geographic description of the Alps

The Alpine communities have always defined a specific relationship with the environment they live in and today they are involved in a process of change which reconfigures uses of space, environmental and environmentalist visions, and social and cultural practices, also questioning traditional development models and generating new territorial projects.

The dynamics described by the geographer Batzing[1], in relation to settlement and development systems, while still being absolutely valid, no longer allow the exhaustion of the description of territorial transformation processes which are somehow defining a new geography of the Alps. These are partly resettlement processes, partly the repair of areas unravelled by an urbanisation which has followed "Fordist" patterns of development, and partly the re-functionalisation of open spaces as well as elements of the historical buildings heritage and more. These processes favour the emerging of a new geographic description of the Alps, in which we can recognise:

– territorial "voids" which are filled with new ideas, functions, etc., often becoming development laboratories;

– different and sometimes brand new forms of living within the alpine "core": from social housing experiences to the whole multi-residential, theme through to widespread hotels and villages with telematic equipment;

– the experimentation of eco-sustainable settlement models;

1   W. Batzing, *Le Alpi: una regione unica al centro dell'Europa*, Bollati Boringhieri, Turin 2005.

– the combination of urban and rural that becomes a localising factor for new residential installations.

In relation to this new geographic description and to the relative territorial transformations in progress, certain key concepts can help with the reading of the resigning and reterritorialization of the alpine communities.

The first key-concept is repopulation. From the first studies carried out on the subject, starting with those on amenity migrations[2] to the researches carried out on the birth of the Alps[3], we can see that there is a global movement towards the mountains which cannot be limited to a mere counter-urbanisation process. In numerous cases this is an authentic social and cultural return, in relation to which new and different images take shape, landscapes that seemed to have been lost, new methods of use of the land (from social practices to business), new requirements, life styles and visions (from those of the amenity migrants to those who become mountain dwellers either by choice or constriction). In this sense, the phenomenon of repopulation enters the heart of the development of the alpine territories when it brings with it new economic processes linked to innovative economic activities[4], not only of a productive nature but also residential[5], and imposes a rethink in terms of social and cultural policies, as well as services, by local and national institutions.

The second key concept is that of territorial innovation, linked to several elements: the condition of "remoteness" which, as sustained by the FAO[6], indicates how mountain dwellers have adapted in time to cope with the structural gaps in the territory and the difficulties imposed by the environmental framework in which they live, finding innovative solutions to solve

2   L. A.G. Moss, R. S. Glorioso (edited by), *Global Amenity Migration: transforming rural culture, economy and landscape*, New Ecology Press, New York 2014.

3   O. Bender, S. Kanitscheider, *New Immigration into the European Alps: emerging research issues*, in «Mountain Research and Development», vol. 32 n. 2, May 2012, pp. 235-241; Alps Agreement, *Quinta relazione sullo stato delle Alpi. Cambiamenti demografici nelle Alpi*, Stampatori della Marca, Castelfranco Veneto 2015; F. Corrado, *Processes of re-settlement in mountain areas*, in «Revue de geographie alpine», 102-3, 2014, http://rga.revues.org/2545 ; DOI : 10.4000/rga.2545, (2014); P. Messerli, T. Scheurer, H. Veit, *Between Longing and Flight: migratory processes in mountain areas, particularly in the European Alps*, in «The Journal of Alpine Research», 99-1, 2011.

4   F. Corrado, G. Dematteis, *Terre alte in movimento. Progetti di innovazione della montagna cuneese*, Quaderno 19, Fondazione Cassa di Risparmio di Cuneo, Cuneo 2013.

5   M. Perlik, *Alpine gentrification: the mountain village as a metropolitan neighbourhood*, in «Revue de geographie alpine» 99-1, 2011. http://rga.revues.org/1370 ; DOI : 10.4000/rga.1370.

6   FAO, *Why Invest in Sustainable Mountain Development?*, Rome 2011.

the problems within the territory[7]; the alpine creative milieu which places the social capital and fixed capital at stake via the networks of relationships that are created among the various subjects at local level and with the other territorial levels, the infrastructural equipment of the territories which are connected increasingly today with new telematic technologies, irreplaceable resources on which to leverage in order to activate local development projects.

These elements highlight the capacities/probabilities of the inhabitants in relation to the alpine environment in an emerging framework of innovation. On this line, the perspective offered by the anthropologist Remotti[8] on the subject of cultural impoverishment and creativity can be well applied in the alpine area. Remotti sustains that cultural creativity «needs space in which to express itself», which is why a "dense culture" – or a strong social structure – facilitates creativity less than an impoverished culture (or a weak social structure), which is often the case in alpine communities. In communities where, in many cases, the links are rarefied, the low density carries with it a rarefying of the social networks and "voids" which allow ideas to emerge more easily than in denser and strongly structured urban contexts. This territorial condition favours the emergence of innovation and the experimentation of innovative solutions.

The third key concept refers to the trans-scalar nature of the practices. Current practices are defined more and more by actions and initiatives occurring simultaneously on different political, economic and cultural levels. Inside visions of development that are the outcome, or perhaps it would be better to say, the summary of ideas and initiatives that draw on and communicate with each other, from micro-local to as high as European level. Just think, in this sense, of the recent experience enjoyed by the UNESCO Dolomites Foundation[9]. The Foundation, contact of the Italian Ministry of the Environment and the UNESCO World Heritage Committee, is responsible for promoting communication and cooperation between the territorial Entities which manage and administer – each according to its own order – the territory on the UNESCO List. Consequently, the Foundation plays a coordinating role for the creation of a system of management policies for the UNESCO site, with the aim of building a shared strategy to favour the sustainable development of a territory which is also historically highly diversified. In this framework, the Foundation has recently defined tourist development strategies in the Dolomite areas, implementing processes of local and regional territorial governance and inclusion (through LabFest,

7   "problem solvers", as they are defined in the Declaration of Lillehammer, 2010.
8   F. Remotti, *Cultura. Dalla complessità all'impoverimento*, Laterza, Bari 2011.
9   www.dolomitiunesco.it

worktables, etc.), which communicate directly with the global level.

Also from a trans-scalar viewpoint, we have the recent proposals for the construction of trans-frontier parks, such as that launched by the President of UN-CEM, Enrico Borghi, for a large international trans-frontier park between Italia, Vallese and Ticino, unifying Parco Nazionale della Valgrande, Parco Veglia Devero, Parco dell'Alta Valle Antrona, the UNESCO Sites of the Valgrande Geopark and the Sacro Monte Calvario of Domodossola with the Valle di Binn Reserve in Vallese and Parco Nazionale del Locarnese e della Valle dei Bagni in Canton Ticino. An operation which would take place on different territorial scales, building new forms of communication for development.

The crucial node: the urban-mountain relationship

The Population and Culture Declaration, signed in 2006 by the member states of the alpine arc as the document in support of the principles of the Alps Agreement on certain specific themes, highlights, on one hand, the role of the centres within the Alps as «centres of supra-municipal social, cultural and economic service»[10] capable of guaranteeing the quality of life in the Alps. This implicates the reduction of the margin through service maintenance policies and the attractivity of people and businesses, guaranteeing territorial supervision in mountain areas, including those to which access is harder. On the other hand, the Declaration sustains the strengthening of relations between cities and alpine and non-alpine territories, not in compliance with the logic of dominance-dependence, which is often still present, but in terms of exchanges and policies of social equity and cooperation.

Therefore, territorial supervision and construction of a virtuous network between town and mountain are acknowledged as central elements in the construction of territorial policies aimed at territorial cohesion and cooperation. For these principles to be applied, it is necessary to change the cultural perspective, unhinging the town-mountain dichotomy, supplying new territorial representations and building new alliances. This is a meeting which is largely still to be built, which requires an overturning of vision and the acquisition of the idea that perhaps possibly from a cooperative town-mountain relationship, i.e. of mutual exchange, different visions can be born. The town-mountain fracture on which it is necessary to work during the current phase, is a fracture which has primarily political responsibilities:

> in the new Europe, the policy of States must not consider the alpine populations and their culture as a fact to be protected, but as a normal case.

10   Population and Culture Declaration, Chap. V.

> The mountains need to be responsibly included: without this responsibility, there can be no future for the alpine regions. In this sense, the Protocols of the Alpine Agreement can represent a good reference guide.[11]

Therefore, it is necessary to implement a metro-mountain governance which can be activated within the mesh of territorial planning and economic programming. Tools which focus on community awareness and can contain strategic local development programmes which are not aimed at evoking the past, characterised by light and shade, but intend to enhance local responsibilities and capacities, are required.

In this process, the Macroregional Strategy for the Alpine Region can be a decisive flywheel, if properly interpreted. It is an agreement which aims to coordinate policies in order to allow the alpine territory to benefit from a sustainable environment, an excellent economic and social development and bring added value to the interventions of the EU and of players at other levels. The three pillars of action that make up the strategy concern:

– ensuring sustainable growth and promoting full use, competitiveness and innovation, consolidating and diversifying the specific economic activities with a view to strengthening mutual solidarity between mountain areas and towns, among territories that provide amenities and those that use them. It is a matter of implementing a real "Pact of solidarity" between town and mountain, as precisely defined in the Grenoble document, which will form a specific added value of the Strategy;

– promoting territorial development focused on "environmentally friendly" mobility, development of services, transport and policies relating to communication infrastructures;

– promoting the sustainable management of energy, and natural and cultural resources, protecting the environment and preserving biodiversity and natural areas.

The Strategy refers precisely to that nodal process that links towns and mountains. As we are told by Batzing[12], it is a matter of creating a responsible alliance between urban societies and rural alpine societies and, at this point, the problem is political. We need a big shared and participated project which can only be achieved today with a cooperation among several levels of government, from local to European, and with the essential active involvement of the urban-metropolitan network of the foreland.

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11   A. Zambon, *I Protocolli della Convenzione delle Alpi punto di riferimento per il futuro della montagna* in M. Pascolini (edited by), *Le Alpi che cambiano*, Editrice Universitaria Udinese, Udine 2008.

12   W. Batzing, *Le Alpi: una regione unica al centro dell'Europa*, Bollati Boringhieri, Turin 2005.

Reflections about territorial policies

The change underway, along with the ensuing territorial transformations (economic, social and cultural, as well as simply physical), can become an opportunity for reviewing and rethinking certain matters of substance in the definition of possible new models of development of the Alps.

First of all, there is the matter concerning the tools with which mountain areas can now build development strategies and design possible futures. This matter is linked to the possibility for these areas to design themselves and represent themselves within a strategic framework that is broader than those at regional and/or metropolitan level (such as the case of Turin's metropolitan area, in which mountain communities account for more than half of the total).

In these terms, there are problems that combine territorial governance, spatial planning and strategic planning, if we keep the issue within a more technical setting. It's clear, however, that all of this is strictly linked to the matter of accessibility to which mountain areas are entitled, not just in physical terms but also institutionally and politically. An accessibility which should/could begin with the strong recognition of the intermediate entities (first and foremost the municipal unions) as activators, instigators and supporters of local planning. Entities which, due to their local dimension, can be an expression of a "territorial feeling".

This means conveying strategic strength to the mountain territories, with a reversal of the observation which implicates a confrontation, a joining of forces, a promotion of active citizenship to achieve an effective supra-local cooperation. This means progressing from traditional top-down but also bottom-up logics, which have proved to be dependent on a "high" in terms of progress objectives, to new logics of the production of knowledge, based on narrative experiences of the local communities in which practices, innovations and experimentations emerge in an interactive, multidimensional and transversal way[13], which allow the construction of those new territorial images that are still suspended today. Images which help built local territorial strategies through forms of agreement which bring together the different players, integrating with higher levels of strategic framework (metropolitan and regional) within a trans-scalar and circular process.

Then there are matters which concern the contents. First of all, the

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13 University researcher in Urban Planning at Politecnico di Torino. Currently President of CIPRA Italia (International Commission for the Protection of the Alps). Project manager of the research of the "Dislivelli" association. Member of the "Scientific Group of Terre Alte", Italian Alpine Club (CAI), and member of the Editorial Committee of «The Journal of Alpine Research». F. CORRADO (edited by), *Popolazione e cultura: le Alpi di oggi*, Franco Angeli, Milan 2015.

formation in the Alpine area, responding to the requests expressed by the new sustainable development models linked to local resources. On this point, there are still considerable shortcomings in the Italian alpine arc, despite interesting experiments such as those carried out by the Mountain University of Edolo or the Trentino School of Management. Yet the matter is of the utmost importance, firstly because it acknowledges the importance of the transmission of history and the identity of the alpine peoples, the acquisition of awareness of the resources offered by the alpine territory (also in terms of know-how) which can be put to use in new and old trades, progressing from tradition to modernity. Secondly, this matter is linked to the possibility/need to sustain centres of scientific and cultural excellence. Lastly, its importance regards the building of connections between young people and the spline culture, connections within which an important part of the alpine culture itself is reproduced.

Then there is the matter of alpine welfare. The important thing is to take action so that the mountain areas really are attractive and capable of offering a good quality of life. It is necessary to sustain policies to reduce marginality and maintain services, also supporting the experimentation of innovative solutions. The use of ICTs is an important step in this direction, because it contributes to the provision of services in three directions: basic consultation (practical information), remote service (applied for the execution of practices), video-communication (applied for remote education/training, remote medical assistance, etc.).

In short, working on these matters allows us to embody the concept of territorial cohesion and cooperation, without which it is always harder to think of balanced and virtuous regional development, which synergistically enhances the potential of an urban-mountain system (local production chains, sustainable recreational activities, resilient ecological settlements, etc.). In this sense, we have to work from now on so that effective applications and innovative development models can be produced in urban-mountain contexts.

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Fig. 1. E. Viollet-le-Duc, *Eclipse above the Mont Blanc* (source: Aa.Vv., *Viollet-le-Duc et la montagne*, Glénat, Grenoble 1993)

Rural Alpine dwellings.
An architectural and landscape heritage at risk

Dario Benetti

Nowadays, the theme of rural dwellings and their preservation risks being considered an awkward, secondary, residual subject. This is true in the areas in which the phenomenon was predominant up until a few decades ago (as in many Alpine areas, including the Valtellina and Valchiavenna areas) The theme has become even more marginal in urban and metropolitan areas. Yet in the past the theme of rural dwellings has weighed significantly on the history of architecture, on architecture in general and also on contemporary architecture.

Studies on the rural alpine house

Historically, there have been many, different approaches to this theme, not only because conditions have changed but also because the history of the rural dwelling itself has changed. By attempting to examine the theme in more detail, we might divide the various methods of approach according to the three subsequent stages. The first stage was that of romantic idealisation and refers to the period in which the Alps were "discovered". Key figures for the architecture of this period were John Ruskin and Viollet-le-Duc, yet even more significant was the figure of Leslie Stephen, specifically because it was during this period that the Alps began to be seen as the "playground of Europe". Alpine culture was still vital, and a certain type of Alpine house was idealised, as in the case of the *chalet*. It was an idealisation, a house which did not really exist and which has endured through time, through to the prefabricated wooden house of our times.

The second stage was the one in which the theme of the rural dwelling was interpreted in functionalist terms. Renewed interest in the reality of rural dwellings and rural culture in general was seen over the course of the twentieth century on the part of architects capable of interpreting architectural themes such as function and typology. I am referring in particular to Giuseppe Pagano, as well as the later work of Christian Norberg-Schultz, who derived a series of theoretical arguments on architecture from Norwegian rural houses.

The third stage, which has lasted through to our own times, was born when the way in which the landscape was perceived changed once again: the landscape was no longer that of travellers, of landscape painters and the first tourists, but started to become a place to "interpret" through its "signs". As in Marc Bloch's Annales School, the landscape becomes a deposit of documents, a new possibility of doing history, which is not only based on written documents but also on the signs of a culture. The inclusion of the rural dwelling within a broader phenomenon, as a constituent element of the landscape, thus becomes a tool for interpreting reality.

After the Second World War, therefore, a series of a field studies ensued, such as the surveys led by Renato Biasutti (for Lombardy with the studies by Nangeroni and Pracchi)[1] for the CNR (National Research Council), surveys which have the merit of covering the whole of Italy and which consider rural dwellings in their reality, in their diversity and concreteness.

Thus the reality changed: during the romantic stage (between the end of the nineteenth century and the beginning of the twentieth), rural culture was still very much alive, whereas during the post-war years, rural reality broke apart. In the Valtellina and Valchiavenna areas, before the Second World War, 90% of the population were farmers and shepherds, and therefore 90% of people lived in rural houses and lived off the land. After the Second World War, through the great industrialisation, one witnesses the end of a culture: it is Nuto Revelli's «world of the defeated», a world which crumbled and was completely abandoned.

Alpine Pompeii

Thus it is during this third stage, and in particular from the 1960s onwards, that a sort of "Alpine Pompeii" emerges: entire villages were abandoned, although inside them several interesting, important buildings remain. The morphology of these ancient villages, despite having been abandoned, is

1   G. Nangeroni, R. Pracchi, *La casa rurale della montagna lombarda*, Oelschki, Florence 1958.

still capable of conveying a powerful attraction through their ruins. A sharp eye cannot fail to be amazed by the ingenious architectural solutions, by the common language transmitted by communities able to share the use of materials and spaces. And it is from here that many research projects take their cue (I am thinking of the one led by Gianfranco Miglio for Jaca Book, or the one headed by Luigi De Matteis for Priuli & Verlucca and which had the merit of covering the entire Alpine region, or again, more recently, the one conducted by Politecnico di Milano which it took to the Varenna Conference in 1995)[2].

It was specifically during those years – remaining on the established theme, which is conservation (or rather the attempt at conserving and reutilising this "Alpine Pompeii") – that an important event occurred from the urban planning perspective: the *Piani Regolatori Generali* (urban management plans) were generally frozen in the 1970s with regard to measures in urban zones designated Zone A. With the exception of a few rare cases in some cities in Northern Italy, the detailed planning tool was difficult to implement, especially in areas where small, historic cities predominate. Thus, in most cases, in Zone A it was only possible to intervene on an extraordinary maintenance basis or through detailed plans. The introduction of Law no. 457 of 1978 opened up new prospects, with the establishment of renovation zones and the implementation of *Piani di Recupero* (regeneration plans). An entire generation of architects, including myself, have based a significant part of their work specifically on these regeneration plans, which presuppose a detailed analysis of historical centres through the cataloguing of individual buildings and the possibility of grading types of project, distinguishing between "renovation" projects and primarily conservation-based projects. This is an important distinction, although it was not always respected by the works that followed. Indeed, had the difference between renovation and conservation been respected, it might have allowed more graduated interventions. Moreover, Article 31 made provision for a series of measures which subsequently formed the basic structure for the current framework law on construction (Law no. 380 of 2001). In Lombardy, implementation of regeneration plans was given a boost by the possibility of financing the planning stage through specific tenders reserved for local municipalities (*Comuni*). In hindsight, it should be noted that in most cases the opportunity was wasted. Until the late 1990s, in fact, the regeneration plan was not yet seen as a plan for direct intervention but merely as a more detailed urban planning instrument. All too often, therefore, these plans remain on paper, merely providing incentives for property sales and the

2   D. Benetti, S. Langé (edited by), *La dimora alpina*, atti del convegno di Varenna, Cooperativa editoriale Quaderni Valtellinesi, Sondrio 1995.

more radical transformations, or "freezing" the existing situation without playing a positive role in terms of conservation and enhancement of existing buildings.

Latterly, in contrast, the issue of rural dwellings has been in by contrast been reabsorbed once again within the more general issue of landscape[3]. Specifically, with regard to the Lombardy Region, Regional Law no. 12 of 2005, which brings together the issue of urban planning (previously considered only in quantitative terms) and landscape planning by means of compulsory documents such as the landscape map (*Carta del Paesaggio*) and landscape sensitivity map (*Carta della Sensibilità Paesaggistica*). Indeed, although with patchy results, this attempt too was implemented only in part and often in a superficial, imprecise manner. The situation has been made worse by the reform of Article V of the Constitution and the absence of state powers with regard to landscape. The original idea of subdelegating regional powers to local municipalities cannot be implemented and the State maintains the idea of its jurisdiction through the superintendencies. Thus the municipal landscape guidelines, although they are the result of more detailed analysis compared with the provisions of Law no. 431 of 8 August 1985 – better known as the "Galasso Law" – continue to be governed by the unstable framework of penalties represented by Law no. 380. Local municipalities do have the concrete possibility of identifying areas of significant public interest to which they may extend the system of restrictions and penalties represented by Legislative Decree no. 42 of 2004. Nevertheless, this way forward risks being a dead end: files submitted by municipalities have been building up in the offices of the Lombardy Region awaiting assessment and have been held up for decades…

In any case, a positive development can be found in the fact that with Regional Law no. 12/05, the Lombardy Region recognises the definition of the European Landscape Convention (the Florence Convention) of 2000: The landscape is «part of the land, as perceived by local people or visitors, which evolves through time as a result of being acted upon by natural forces and human beings and their interrelations». Landscape, therefore, is a complex reality resulting from the interaction of a series of systems which tie communities to places over time.

Therefore, in landscapes (thus seen as a set of diachronic signs), a series of layers of elements from various epochs builds up, a canvas on which medieval buildings coexist with the factory sheds and sprawl of the lower

3   D. Benetti, S. Langé (edited by), *Il paesaggio lombardo*, Cooperativa editoriale Quaderni Valtellinesi, Sondrio 1998.

valleys[4]. In this broader context, the marks of the landscape system of the shepherd farmers, expressed through work and things for over a thousand years, still have a predominant role in Alpine areas. This landscape-based interpretation allows us to consider not just the rural dwelling in itself, as an architectural element, but also the landscape as a whole ass a construction, through terracing, dry stone walls, etc. – in other words, a culture that has expressed itself through a complex series of elements that must be considered together.

Spontaneous architecture?

At this point it is also necessary to sweep away a misunderstanding: it is essential, for example, to understand that the system of Alpine rural settlements and dwellings is not the product of a "spontaneous" phenomenon. Anyone who defines rural dwellings as "spontaneous architecture" places popular culture in a corner, the subject of an improvised form of architecture, the mere fulfilment of vital needs devoid of expressive subtleties. On the contrary: rural architecture the echo of a cultured form of architecture, of a layered history, with foundations in medieval and Romanesque architecture. For example, in Europe it is possible to identify a number of cultural areas in which certain architectural cultures have expressed themselves through monumental as well as popular architecture. We can thus identify a northern European area where timber architecture is more widespread and a southern area of stone-based architecture: construction methods and cultural influences which derive from Romanesque architecture, medieval pilgrimages, etc.[5]. The zone that we might call *La Rezia Italiana* (Valtellina, Valchiavenna and the Italian valleys of the Canton of Graubünden) exhibits a largely unrecognised complexity, as few studies have been conducted. This complexity and richness is due in part to the fact that it straddles the dividing line between various cultural influences, with wood-based architecture in the valleys further to the north and mainly stone in those to the south. Confirmation of lack of awareness of the phenomenon can be found in the statements of key players in the world of local tourism who in the 1990s argued that Valtellina and Valchiavenna would have had a very different fate if they "had had" a rural architectural heritage comparable with that of the Swiss or Austrian valleys…This heritage, therefore, is so little

4   D. Benetti, *Il segno dell'uomo nel paesaggio*, Cooperativa editoriale Quaderni Valtellinese, Sondrio 2000.
5   S. Langé, *L'eredità romanica. Edifici in pietra nelle dell'Europa Occidentale*, Jaca Book, Milan 1989.

known and valued that it might even be completely ignored. Unfortunately, it is precisely this ignorance, this lack of knowledge, which is the main cause of demolitions and incongruous transformations. This is why most of this immense heritage, in the space of a few decades, has been tampered with and destroyed. Indeed, the "Alpine Pompeii" has been completely altered by the construction of holiday homes, by the negligence of abandonment, by destruction.

There is not room here for an analysis of the typological variety of rural dwellings in *La Rezia Italiana*. Fortunately, specific studies were conducted at a time when it was still possible to do so, and it is to these studies that the reader is referred[6].

Nevertheless, some examples may help us to understand to what extent the heritage we are discussing is of significant complexity, with an overlayering of elements belonging to different eras and continuous cross-contaminations. From the "all-stone" architecture of Val Codera, with its characteristic broli or orchards, to the wooden architecture of Val San Giacomo with echoes of the Walser culture; from the overlapping of the medieval and wooden architecture of Savogno, to the mixed styles of the lower valley, with influences deriving from the Lombard farmhouse, as in the *Culundei* of Delebio or the open courtyards of Polaggia and Berbenno; from ancient heating systems without chimneys which are a feature of the stone architecture of the Middle Valtellina to the architecture of its side valleys and their communities, with agglomerations or autonomous districts inhabited by extended families, through to the case of the Alta Valtellina where the so-called *dimora unitaria* or "unitary dwelling" spread, with wooden houses under a single roof which combine rural and residential functions.

The rediscovery of Alpine rural dwellings is not necessarily bound up with a nostalgic attitude. It is not a question of nostalgia for the past but rather, as Norberg-Schulz has pointed out, the rediscovery of a *genius loci*, construed as the factor which establishes the relationship between humans and space. One of the most fascinating aspects of Alpine zones is perhaps that they show, in a simple way, this elementary factor of living and being in relation to space. One perceives, in these spaces, the spark of a different way of living together, of creating things, of approaching space. In this regard, Peter Zumthor, one of today's leading architects, has worked in Chur at the Superintendency for Architectural Heritage and studied rural dwellings for a long time, transforming this study into the starting point of his developmental path.

There is also significant historical depth, not to be underestimated,

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6   A. Benetti, D. Benetti, *Dimore rurali di Valtellina e Valchiavenna*, Jaca Book, Milan 1984.

particularly in the stone architecture in which the Romanesque influence is clear, such as the apse of the church of San Pietro in Vallate, near Cosio Valtellino, dating to the eleventh century. Traces of Romanesque architecture are to be found in its wall structures, and an ability to use stone also spread among the master builders of the villages, and is at the origin of the tillage of the farmlands already underway in the Lombard period. This is all clear in the construction of the terracing, in the supporting dry stone walls, in the *murache* and in the orchards present on all of the terraced slopes of the Valtellina area, traces possessing an incredible historical depth in the walls of rural dwellings, such as in the peculiar overlappings of ancient portals and architrave windows dating from the Early Middle Ages, documenting a specific symbology in the rural dwelling. The complexity of these buildings is thus clear: often undervalued, they are unfortunately transformed in a trite way, ignoring the presence of these signs of medieval origin and the subsequent seventeenth and eighteenth-century layerings.

In all likelihood, the large, loosely-controlled Valtellina and Valchiavenna and other areas during the Early Medieval period were colonised through the establishment of large farms in order to identify land to till. Although early medieval documents have been lost, recent studies conducted in 2007 near the lake of Lavarone in the Trentino region used pollen analysis to record an epochal change in the exploitation of agricultural land. Between 570 and 655 AD, coinciding with the Lombard period, pasture zones increased significantly, a fact which shows a certain interest in the Alpine area.

Heritage under threat

Rural dwellings thus constitute a valuable heritage in addition to being an important historical document. Nevertheless, the theme has been abandoned to itself and protection is completely absent. Nor have the local communities been capable of evaluating and adequately analysing the importance of these signs, which in any other period would probably have been held in a different regard. That said, neither the Superintendency for Architectural Heritage, nor the Region, nor any of the other organisations that ought to take responsibility for protection has made any kind of move in this direction.

On the one hand, therefore, there is a clear inability to interpret the features of these artefacts, and on the other an inability to act. With regard to the former issue, we may note a lack of expertise on the part of technicians operating locally who often do not have an adequate cultural background. With regard to latter, there has been a loss of skills and craftsmanship on the part of builders. Finally, public authorities have paid scant attention to

the issue, a situation that is compounded by the absence of legislative tools from an urban planning perspective. Yet there are still perhaps margins for manoeuvre, assuming that there are still areas of potential, for example in extending the theme to the more global dimension of the landscape or in the use of GIS software applications which make identifying examples of local heritage simpler. In addition to this latent potential, a number of noteworthy experiments have been carried out which may be considered pilot schemes.

   To remedy a certainly less-than-rosy situation, certain aspects must first be clarified. First of all, it is necessary to distinguish clearly between renovation and conservation and for local building and landscape commissions to be thorough in requesting documentation from designers, specifying design details and using suitable scales to document the state of the art in detail. Often, it is the opposite: ordinary or extraordinary maintenance work turns into the full-fledged replacement of whole parts, disguised by scant documentation. Today property developers have taken over the "Alpine Pompeii", managing to pass off rural architecture as "an element in contrast with its environment", that is as a residual element of a past era to be brought into line with the most recent design and energy efficiency standards.

   Even more serious is the case of public works which involve the unjustified demolition of entire villages, such as in the case of the outlying Torchi Bianchi district under the municipality of Morbegno, which was demolished following a public tender in 2005. It is not an isolated case. In the Valtellina area examples of such destruction are multiplying. Examples include Bianchi, the outlying district of Torre Santa Maria – which had been listed by the Comunità Montana Valtellina of Sondrio (the association of neighbouring mountain municipalities) as a settlement of historical significance, with a fifteenth-century fresco – where bulldozers were chosen over a maintenance schedule or restoration, or Scilironi in Valmalenco, which had also been noted as a *contrada* or district of great historical interest yet now fallen into ruin through total neglect, or certain "one-off" projects in Valmalenco, categorised as vaguely as they are imaginatively as "*ricostruzione di fabbricato*" (literally "building reconstruction"), consisting in the demolition of the original building and replacement with a new one. The risk in all of this is the loss "place", with the transformation of what a place of historical importance should be into an ordinary place.

Virtuous examples

Fortunately, a number of positive, virtuous examples exist too. As I mentioned above, opening up the question to an aspect of landscape offers a noteworthy possibility: ecomuseums. These are not merely open-air museums: as defined by one of the first to realise their potential, the French scholar Hugues de Varine, they are a veritable «mirror of the local communities». An ecomuseum does not only visit the past but the present too, showing what a community represents in terms of its past agricultural, cultural and architectural heritage and what it represents today with its local production and crafts, festivals and traditional specialities. Regional legislation introduced in Piedmont has already led the way for many years, and Lombardy, since 2006, has approved an ad hoc regulatory measure. Ecomuseums place value on one the fascinating features of the Alpine landscape: the importance of place in the relationship between humans and the land. A fundamental problem to which Alpine communities have always sought to give a balanced response, the responsibility of taking care of and living on the land.

Some examples of such virtuous experiments might be mentioned, such as the Val Taleggio Ecomuseum in the province of Bergamo, sponsored by the municipalities of Sottochiesa and Vedeseta, with itineraries which showcase the ancient stone houses with their steeply sloping roofs, the characteristic *roccoli* used by bird hunters and places of local cheese production, the Val Gerola Ecomuseum in the Valtellina and the mining ecomuseum of Bagnada della Valmalenco (also in the Valtellina) which has reclaimed a disused talc mine for tourism purposes.

Other positive examples of specific public projects are the reclamation of *Ca' Bardassa* in Fraciscio di Campodolcino or the *Museo dell'homo salvadego* in Sacco in Valgerola and the rehabilitation of a number of water-powered workshops (water mills, forgeries and fulling-mills) by the Comunità Montana Valtellina of Sondrio and by the Comunità Montana of Alta Valtellina (these include the restoration of the water-powered sawmill in Livigno). One of the private initiatives worthy of note is the conservation and restoration of the Beltramelli *contrada* or outlying district of the municipality of Villa di Tirano by a team of local technical experts and local businesspeople. One of the earliest conservative restoration projects – also in Valtellina – began in 1995, involving the whole village of Furfulera, in Val Tartano. This project led to the establishment of an association for the purpose of "analysing, conserving and enhancing rural dwellings", taking its name from the *contrada* or outlying district (Associazione Furfulera, 2008).

Finally, it should be remembered that at the national level, Law no. 378

of 24 December 2003 sets out «Provisions for the protection and enhancement of rural architecture» and the implementing decree of the Ministry of Cultural Heritage and Activities of 2005 (Official Gazette of the Italian Republic no. 238). The law sets out to protect and enhance the types of rural architecture, such as farms and rural buildings in Italy built between the 13th and 19th centuries and which bear witness to the traditional rural economy (Article 1). The task of the Regions is to identify the most significant examples and (Article 2) make provision for the rehabilitation, redevelopment and enhancement of their design, historical, architectural and environmental characteristics, including through the drawing up of specific programmes of generally three years in duration. The law also earmarks an annual fund, starting from 2003, of 8 million euros. The decree of the Ministry of Cultural Heritage and Activities goes on to specify «technical and scientific criteria for projects», setting out the building types to which the law applies:

> buildings and settlements built between the 13th and 19th centuries, which are significant records in the context of the structure and the historical, anthropological and urban stratification of the area, of the history of the rural populations and communities, of the respective traditional agricultural economies, of the development of the landscape.

In addition, Article 4 of the decree (and this is certainly an important aspect) set out (paragraph 4, Article 1) that the protection provisions set out in Article 10 of the Code of Cultural Heritage and of the Landscape (Legislative Decree no. 42 of 22 January 2004) must be applied to all of the cultural heritage mentioned above which is deemed to be of «historical, artistic or ethno-anthropological interest»; this means that once identified by the Regions, such heritage may be automatically classified as listed buildings and subject to an appropriate system of penalties/fines. To date, the Lombardy Region has not worked actively to implement Law no. 378; however, it has included in its Rural Development Programme for 2007-2013 a channel which explicitly refers to this very law, thus making it possible to carry out a number of limited-scale projects for the enhancement of individual rural buildings. We hope that regional legislation is fully implemented in the future.

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Fig. 1. Wooden house in Val Tartano

Fig. 2. The Torchi Bianchi hamlet. Photo taken in 1983

Fig. 3. The Torchi Bianchi hamlet. Photo taken in 2009

Fig. 4. Overview of Maroggia. Photo taken in 1980 by Mosé Bartesaghi ©
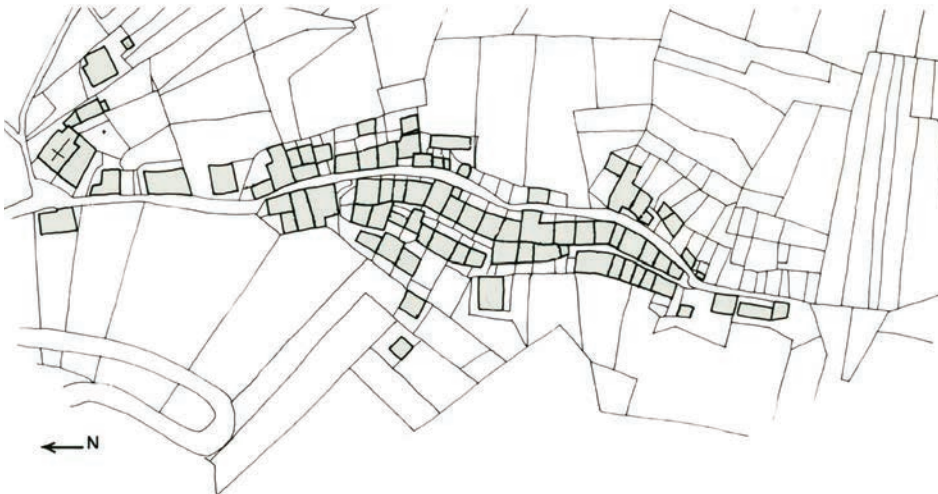
Fig. 5. Layout plan of Maroggia

On the next page
Fig. 6. Beltramelli hamlet, Villa di Tirano

Manto di copertura in piode
selvatiche locali di recupero

Aperture del sottotetto
ad andamento irregolare
Superfici vetrate cristallo
Float incolore

Canali in legno di larice
con rivestimento interno in rame

Correnti a sezione irregolare
in legno di larice

Assito in tavole di larice sabbiato

Mensole in legno di larice
di recupero

Montanti verticali in legno
di larice di recupero

Restauro architravi millesimati
e spalle aperture

Parapetto con tavole verticali
ed orizzontali
in legno di larice sabbiato

Restauro portone e congegni
di chiusura (carnàsc')

Architravi in legno di larice
di recupero

Serramenti in legno di abete

Superfici vetrate cristallo
di sicurezza stratificato

Soglie in beola locale

Davanzali in beola locale

Murature in pieta a vista
con fughe in malta di calce

Fig. 8. Technical drawing of the restoration of a front in the Furfulera hamlet

On the previous page
Fig. 7. The Furfulera hamlet in Val Tartano, current state

Enhancing Alpine villages.
The case of Ostana in the Po Valley
Massimo Crotti

There are many reasons why mountain areas have become a topic of current debate to the point where they occupy articles and covers in the media and feed the visual imagination of the fashion industry, cinema and architecture: from the green movement's search for unspoilt (or relatively unspoilt) places where we can take refuge from the evils of this country's widespread urbanisation to reasons deriving from the economic crisis that has led to a review of production and social models in preference for alternative lifestyle scenarios, right up to reasons that see the persistence of a concept of the mountains as a place "to be used" for recreational purposes – particularly as regards tourism and sports – but with a new awareness of the peculiarities that characterise a territory that is as rich as it is fragile.

The sum of all the effects of this renewed interest in the mountains – which, it is worth reminding ourselves, cover approximately half of this country[1] – is encouraging the emergence of a new community of highland visitors and inhabitants.

Firstly, the range of people who find the perfect conditions for sporting activities in the Alps has become more diverse and is no longer limited to downhill skiers, as well as those interested in alternative tourism, who want to get close to nature and observe the daily life of local people. This has not only led to the rediscovery of local products – primarily food and wine – but, above all, an interest in the culture, history and traditions of places and a resulting demand for a more "real" kind of hospitality, one that is not only truly imbued in local conditions but also able to offer services and

1   *Rapporto Montagne Italia*, published by Fondazione Montagne Italia, 2015.

facilities that meet the needs of contemporary life. Secondly, the profile of those who live in the mountains is changing with each person who chooses to live and work in the valleys (or goes back to doing so), sometimes in a piecemeal fashion that is still enough to expand the resources of local economic development and participate in the construction of new identity-forming practices founded on traditional ones.

Though limited in number and located in scattered areas, such resettlement phenomena mark a demographic U-turn after decades of desertion and, inevitably, have consequences on the level of demand for services and changes to the built environment and the mountain landscape.

In such dynamic circumstances, new issues and questions arise for those who, in varying capacities – local authorities, architects, companies – find themselves participating in processes of change: the updating of buildings and villages to new residential standards and new uses, the need for technologically sustainable and energy efficient buildings, the provision of services and infrastructures that meet the needs of contemporary life, the contribution that high-quality architecture can make to the enhancement of the identity and culture of places.

The town of Ostana, in the upper Po Valley – one of Piedmont's *Valades occitanes* – is an emblematic case and, in many ways, an example of how it is possible to tackle these challenges and consolidate the process of redeeming the "mountains of the vanquished" thanks to complex, mutually agreed, long-term action.

Consisting of a number of hamlets scattered along the south-facing slope opposite Mount Viso, the borough of Ostana had over 1,200 inhabitants a century ago. These dwindled to six in the last decades of the twentieth century. This decline seemed inexorable; instead, it has changed course thanks to the foresight of a town council that set up a long-term programme founded on three cornerstones: the promotion of Occitan culture and language, support for sustainable and informed tourism and the promotion of its landscape and architectural heritage.

The quality of its architecture has had a key role in combining the three strengths of this revival: indeed, work on renovating existing buildings and well-planned new constructions are some of the major attractions and factors for recognising local identity as part of the cultural, economic and tourist promotion of these hamlets.

To this end, a first phase of renovation work began in the mid-1980s, which mainly concentrated on homes and introduced an appreciation of local materials and techniques without, however, falling into the trap of trivialising presumed "mountain-style" solutions, thus avoiding construction work that is completely estranged from the surroundings and the deletion of local architectural features.

In contrast, a number of construction projects have been launched in the last decade that have tackled renovation programmes as well as other types of improvement, investigating local Alpine architecture with a contemporary interpretation. These are mostly public buildings, constructed thanks to resources provided by European, national and regional local development, tourism and energy programmes.

These improvements were designed by the architects Marie-Pierre Forsans, Massimo Crotti and Antonio De Rossi – the latter involved as consultants from IAM, Istituto di Architettura Montana, run by the Politecnico di Torino – with contributions from other professionals, and have proved to be a kind of architectural workshop for discussion and experimentation as regards a number of central issues affecting the design of buildings in mountain areas today.

At first glance, these seem to be issues that only affect the practice of design, of the discipline of architecture at a difficult time – due to a lack of resources, the complexity of the administrative processes that accompany public works, the impoverishment of construction quality – and in a fragile and complex environment like that of the mountains.

In actual fact, these problems concern a vast number of situations and bodies that are part of the processes that renovate and enhance Alpine towns: from the programmes put in place by territorial authorities (regional governments, mountain town associations, etc.), local implementing officers (mayors and town councils, administrative officials, etc.), the technical and professional skills of architects, up to the practical expertise of construction companies and, finally, the end user: i.e. the communities who will inhabit them.

Starting with the various improvements carried out in the hamlets of Ostana, we will attempt to identify some of these design project themes, taking our cue from the consideration that the construction work carried out addresses a number of issues and that there is a strong relationship between the quality of architecture and the way these issues are considered, tackled and resolved.

In other words, there is a direct link between good architecture and the repercussions it has on the enhancement of Alpine towns.

The reinterpretation of Alpine architectural types

Alpine villages feature a wealth of building types and arrangements of the same in settlements, types that can be reused and reinterpreted when renovating single buildings and in coordinated enhancement projects; as was the case, for example, with the scheme for the "Development and Renewal

of Alpine Villages" in the 2007-2013 Rural Development Programme for the borough of Ostana.

Whether construction work involves restoring buildings in a fair state or the reconstruction of total ruins, improvements can be based on the observation and study of the typological and distributional characteristics of existing buildings – from the way their sections are grouped together and from the spatial variations that they create between outdoor areas, covered areas and closed cells – in order to propose solutions that are surprisingly well-equipped for their new purpose or so as to adapt buildings to modern lifestyles.

For example, this was the case as regarded the design project for the *Lou Pourtoun* cultural centre in the hamlet of *Miribrart* – the Occitan name of Ostana's Borgata Sant'Antonio hamlet – that put forward and reinterpreted the three-dimensional typological layout of the complex. This was based on a covered area – the *pourtoun* – placed horizontally across the slope that determines the position, uphill and downhill, of small building cells, a sequence of stone sections that look out onto a common space, blocked off by high wooden windows, and accommodate new functions.

Similarly, the layout of existing blocks determined the layout and spaces in the plans for the Wellness and Sports Centre in the main hamlet of Ostana. It is a compact block – consisting of two stone sections placed side-by-side and a section that juts out below – that maintains a unified style as regards the exterior but has been dug out inside, taking advantage of the sloping terrain, in order to accommodate the height of a climbing wall and a wellness pool, as well as a series of complementary spaces.

A sense of proportion, of separate parts and of the whole

By their very nature, mountains force architects to tackle the "dimensions of things", not only those of buildings, but those of open spaces as well, of the spaces that buildings create: the spaces between retaining walls, between buildings, between roads and the slope, and the physical relationship between these elements.

In other words, designing in mountain areas imposes "proportion", keeping the size of "objects" under control, and the skilled placement of "objects" in their surroundings; finding a balance between natural conditions – the orographic characteristics, water, snow, wind and vegetation – and manmade objects.

The size of open spaces, the height of buildings and differences in levels, the lay of the land and orientation are essential aspects when planning improvements that today, due to the nature of the functions and

characteristics of buildings, introduce problems and concerns that were once unknown in mountain areas.

Enhancing Alpine villages involves the creation of accommodation, open areas for events, technical structures and car parks. In short, a host of objects in shapes and sizes that have nothing to do with their surroundings but that can only be measured and kept under control with a design that addresses the parts and the whole, unlike the principle of accumulation and juxtaposition of separate construction projects.

This approach guided a search for a proportion, a "measure" of the place, in order to standardise the improvements carried out at the entrance to Ostana: i.e. the repair of footpaths, car parks and spaces allowing public transport vehicles room to manoeuvre, the creation of a rock climbing wall resulting from the need to create a retaining wall, a public wing on a small building that leans against the slope and restores the balance between the parts – the buildings – and between the parts and the rest (the road, footpaths and open spaces).

Integrating innovative systems and technology in buildings

Today, when practicing Alpine architecture, the main consideration that technologically innovative systems and materials need to address is the principle of *performance*, which is evaluated only in objective and measurable terms – energy consumption, the physical and technical characteristics of materials, the energy performance index based on classification protocols, etc. – that take precedence over any other factor for assessing a project or for determining suitability as regards the context: such as local architectural and landscape characteristics, the role of a design as a tool for mediating between functional performance and construction, and construction and building management conditions.

Nevertheless, there is a position that resists change and design innovation in the name of a presumed principle of conservation, of safeguarding traditional views and features, often adopted acritically, which leads people to accept new technical systems and solutions only if they are "invisibile" or if they mimic "typical" architectural elements; solar roof panels that imitate traditional stone roof slabs are the worst example of this stance.

If we wish to avoid the sterile choice between these two positions, there is a third way that consists of considering the improvements that need to be done – often generated by the introduction of new performance and building regulations – as opportunities for re-inventing innovative technological and architectural solutions.

This means considering buildings as sites for experimentation and design

integration, rather than manmade objects to which we should simply graft technological components (solar panels on roofs, insulating building envelope materials etc.) or objects where technical innovation should be either forbidden or hidden in order to avoid betraying the traditional nature of mountain architecture.

On the contrary, innovative technology and systems must stimulate building design and serve as a challenge to rethink – in a smart, sensitive way – the consolidated, authentic and original technical solutions of Alpine architecture, in the same way we approach visual details and the overall look of buildings.

In the renovation work done on Ostana's Wellness and Sports Centre, which was more extensive than on other buildings, this third way was chosen. The design concentrated on the search for technical detailed solutions that could insert solar panels for heat and hot water under the stone roof slabs, without hiding the new technological element but instead making it an integral part of the roof by re-inventing a number of technical and stylistic focal points of local architecture (the sections where roof and masonry meet, the way the roof is layered, the eaves). Similarly, an earthquake-resistant structure was created by hybridising the reconstruction of load-bearing perimeter stone walls with a system of interior partition walls and ceilings in visible coloured cement. For the first time in Ostana, reclaimed stone was used not just as a mere cladding material but as a structural element instead and reinforced concrete as a "visible" material, boasting its own visual expressiveness – its colour and texture – that could "communicate", combined with the Corten steel of the windows, with the local stone, creating new architectural designs.

Aware that these are only some of the issues that surround enhancement and regeneration processes in Alpine villages, and that are undoubtedly seen from the particular perspective of those who find themselves working in a specific capacity within these processes, nevertheless we believe that it is possible to look to the future with renewed optimism on the basis of experiences like that of Ostana, not only because these scenarios relaunch the mountains as a privileged site for architectural experimentation and innovation, which in the past has delivered extraordinary results, but most of all because we now see the mountains as a feasible and extraordinary place to live in today's world.

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Fig. 1. M. Crotti, M-P. Forsans, A. De Rossi, Studio GSP. The *Lou Pourtoun cultural centre*, Sant'Antonio hamlet, Ostana, 2015. The renovated village with Mount Viso in the background

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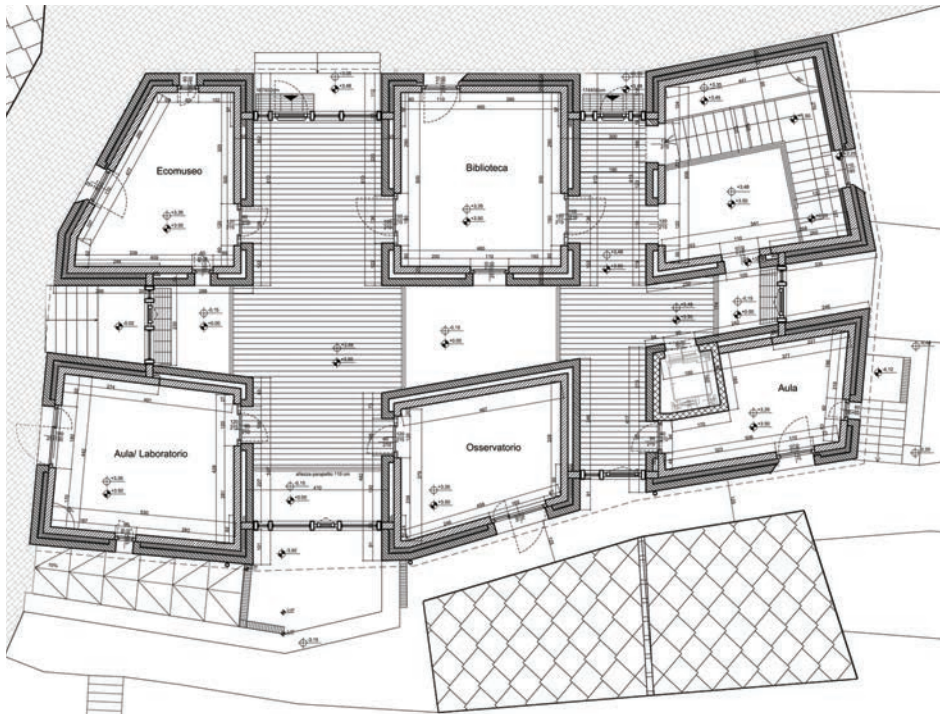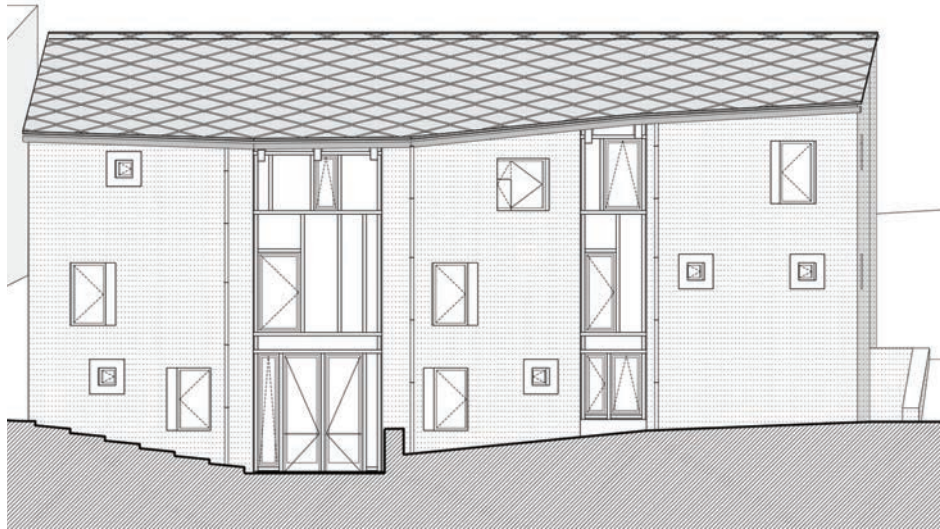
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accueil

stanza terapie

palestra/
parete di roccia

1. accueil_ufficio segreteria
2. balconata
3. parete di arrampicata
4. piscina
5. vasca_idromassaggio
6. sauna
7. terrazzo_solarium
8. spogliatoi
9. infermeria

Pianta Piano Terreno
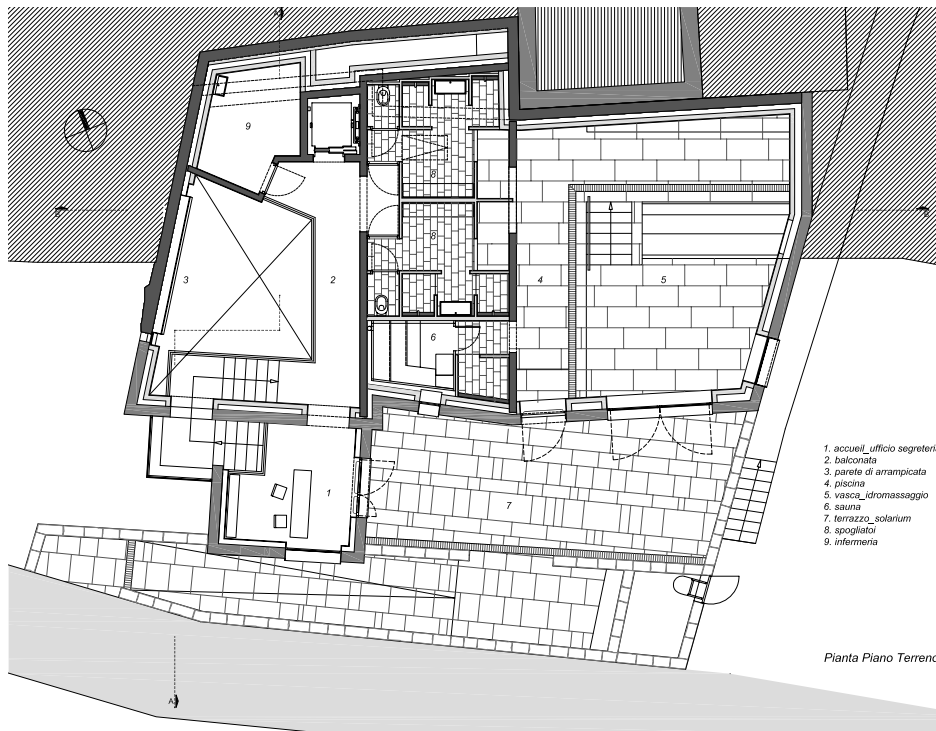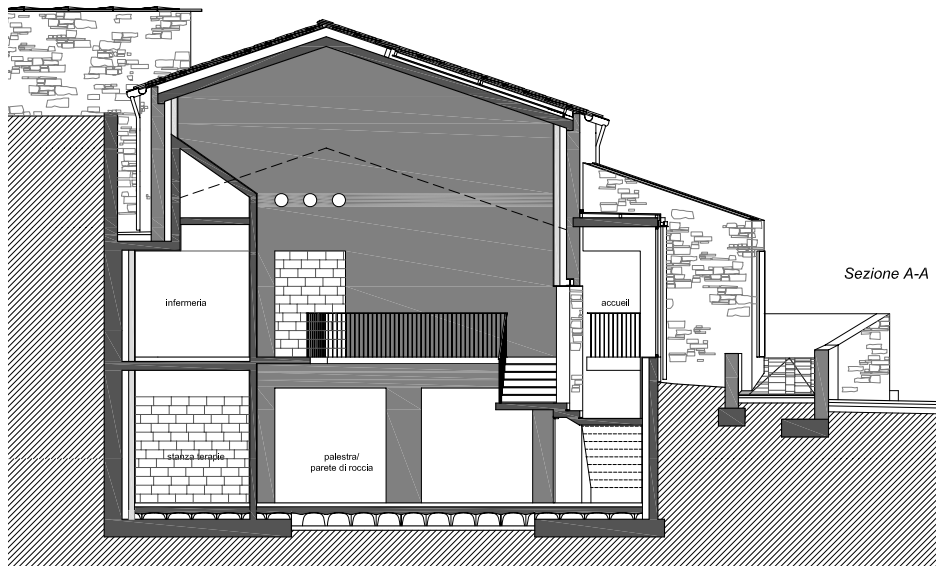
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Designs overlaying ordinary buildings in extraordinary places
Enrico Scaramellini

One of the first ways of approaching a project is to lay some sketching paper over a photograph; the first traces of what will gradually come to shape the building are sketched out on this sheet. This is where the expression "overlaid designs" comes from. The title perfectly encapsulates and objective condition, one which can even be discerned in the absence of specifically architectural tools. The buildings on which the project is executed are ordinary buildings, without any exceptional elements: one might almost say without any qualities. By way of contrast, however, there are extraordinary places. The natural landscape is the dominant element, the looming mountain with its forms and colours is the shared area of intervention.

It should first be pointed out that the Alpine area, although characterised by an extraordinary landscape, is not an idyllic place: it is a land full of contradictions, errors and inconsistencies, in which there is a recognisable typology; it is a hybrid but is primarily a meeting place of cultures that express different needs.

The buildings worked on do not construct the scenery, they do no actively participate in enhancing the landscape. They are buildings whose very existence could be called into question. This awareness allows out attention to be tuned to a different level: when can the natural and built landscape be defined as being in equilibrium? In other words, when and in what way does a redesigned building become an element that enriches the landscape?

One of the highest aspirations of all the projects presented is to dialogue with the landscape and to act as an element of its transformation: how can a small project change our perception of the landscape and become an element which enriches it (albeit in its own small way)?

The project functions as a form of overwriting, starting from a deliberately

positive analysis of pre-existing elements. In the latter, there is always an aspect, a composition or a material which becomes a fragment to watch, a kind of hidden "nature" worthy of consideration. The project aims to transform the building with the presumption of elevating it to a necessary element of the landscape. The projects presented investigate different categories: the building, open space, the built environment and the microscale. A common feature is the transformation of the initial condition through the project. Through a series of design devices, the artefact redefines its nature and reconfigures its own role within the landscape.

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piano terra

piano primo
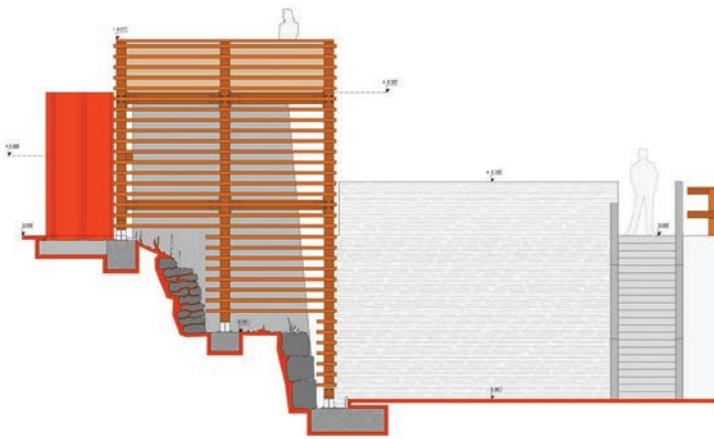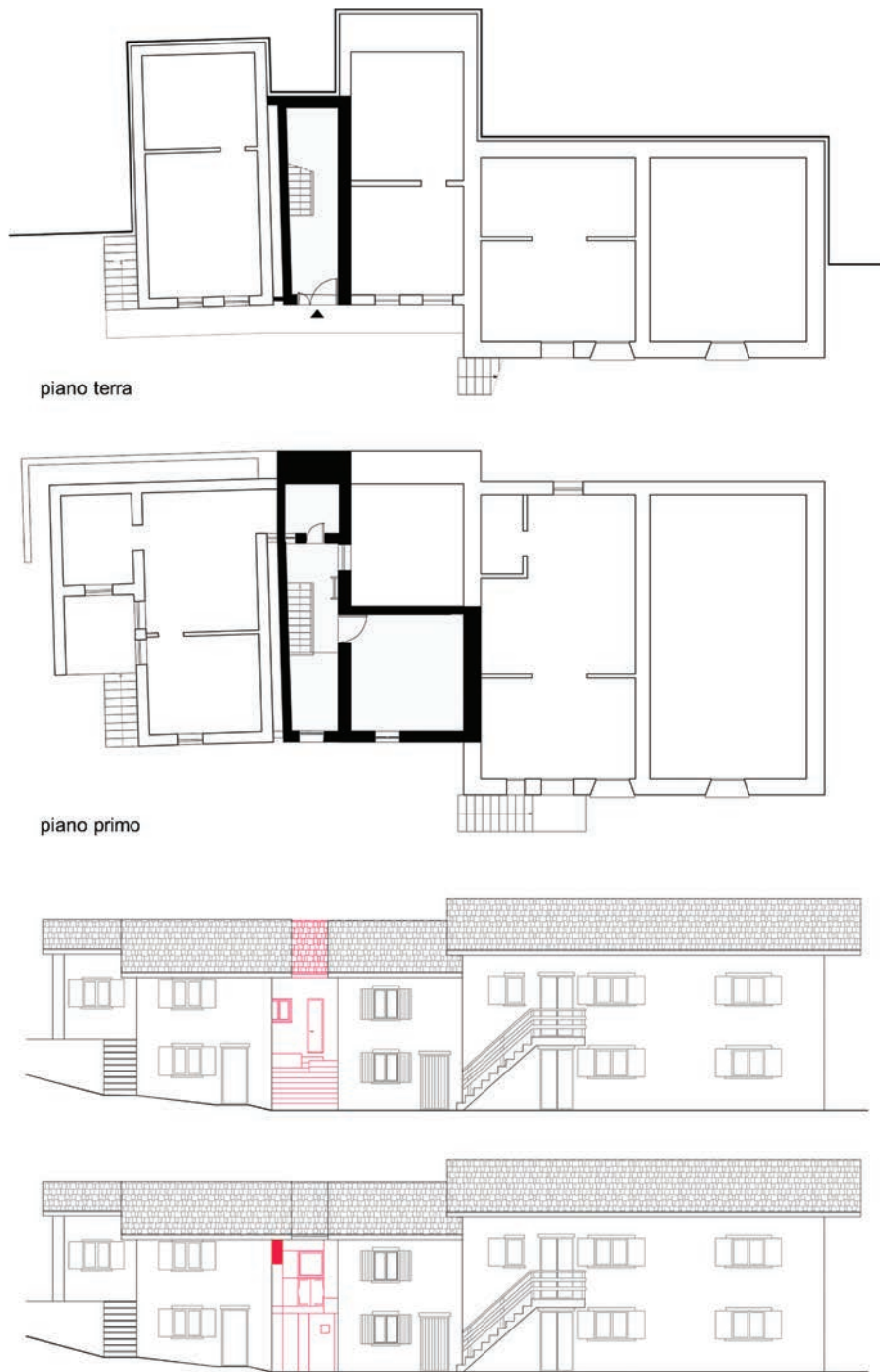
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particolare facciata

particolare piano primo

particolare piano terra
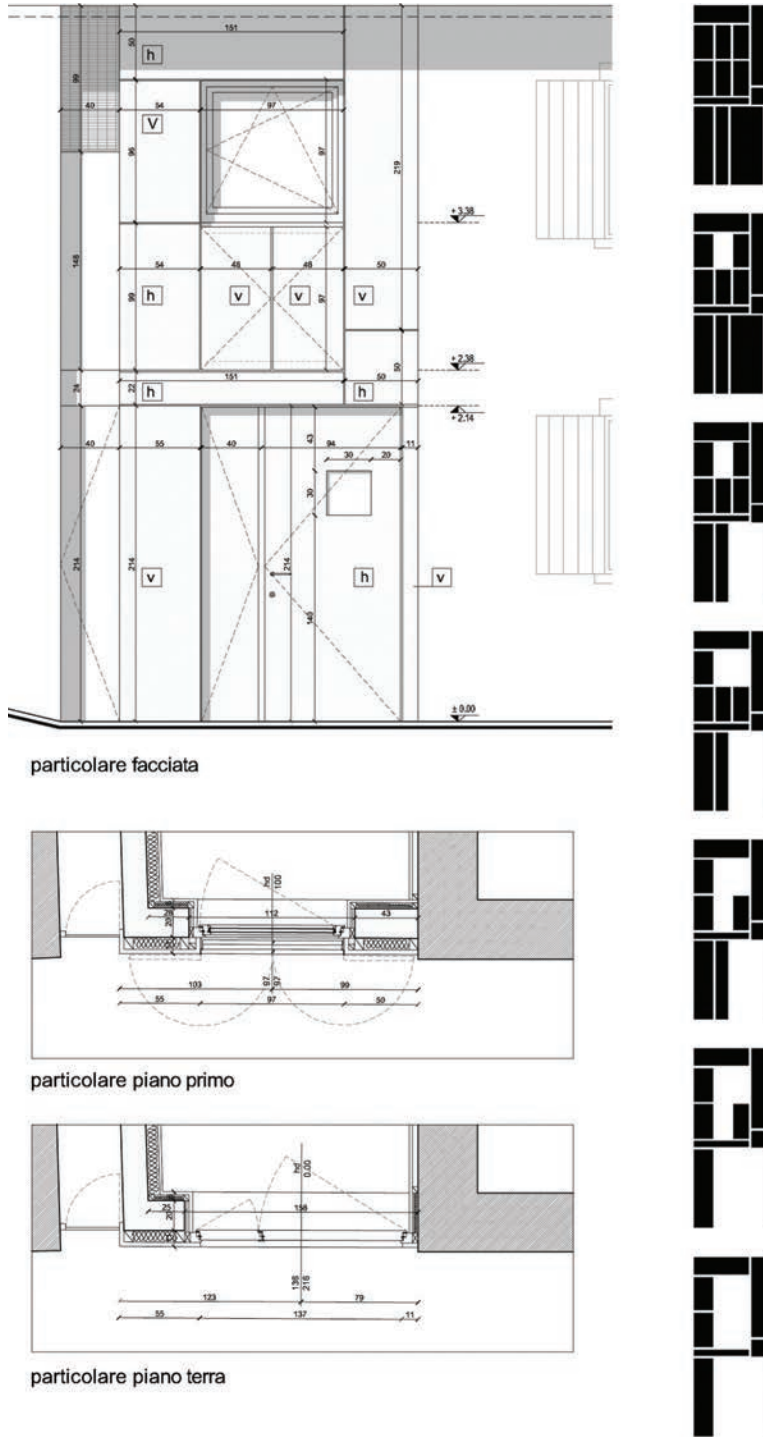
Fig. 8. *Wardrobe in the Landscape.* Technical details

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Architecture in the Valtellina and Valchiavenna.
Local identity, global modernity

Simone Cola

The first half of the twentieth century witnessed the construction in the province of Sondrio – which historically has always been peculiarly isolated – of a major system of works of infrastructure and civil architecture which in fact shaped the relationship of civic society and designers with modernity.

Hydroelectric and roadbuilding projects, sanatoriums and public buildings, residences for rapidly-developing town centres left their mark both before and after the Second World War on the profound changes in settlement patterns and local land management, thus highlighting – particularly in tourist resorts – the existing contradictions between international languages and local contexts.

The clear contrast between the rare examples of high-quality architecture and generally mediocre construction shaped the great expansion which took place in the second half of the twentieth century, thus and at the same time rendering the theme of local identity ineluctable.

The contradiction between an open society oriented towards the globalisation of processes and cultures, and the need to give physical substance to a concept of territory which, first and foremost, ought to be of benefit in tourism markets, has been clear.

Construction has grown and expanded, moving from an essentially uncritical importation of external models to an attempt to fit such paradigms into the local context, offering, however, not so much a profound reflection on the principles of construction and settlement which are specific to the subject but more the uncritical reproposal of forms and materials deemed to belong to an ill-defined local tradition in many cases suspended between property speculation, romanticism and *genius loci*.

Yet several architects have grown up in this context, with all of its contradictions, and have tried in their daily practice to relate to these cases, thereby contributing to the attempt to propose a different idea of broad architectural quality which, although it does not solve global contradictions is nevertheless capable of consciously challenging modern construction methods in a context such as that of the Alps.

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Fig. 1. *'MP' Single-family Home*, Albosaggia, Sondrio

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Fig. 2. Recent publications about Architecture and Landscape in Valtellina
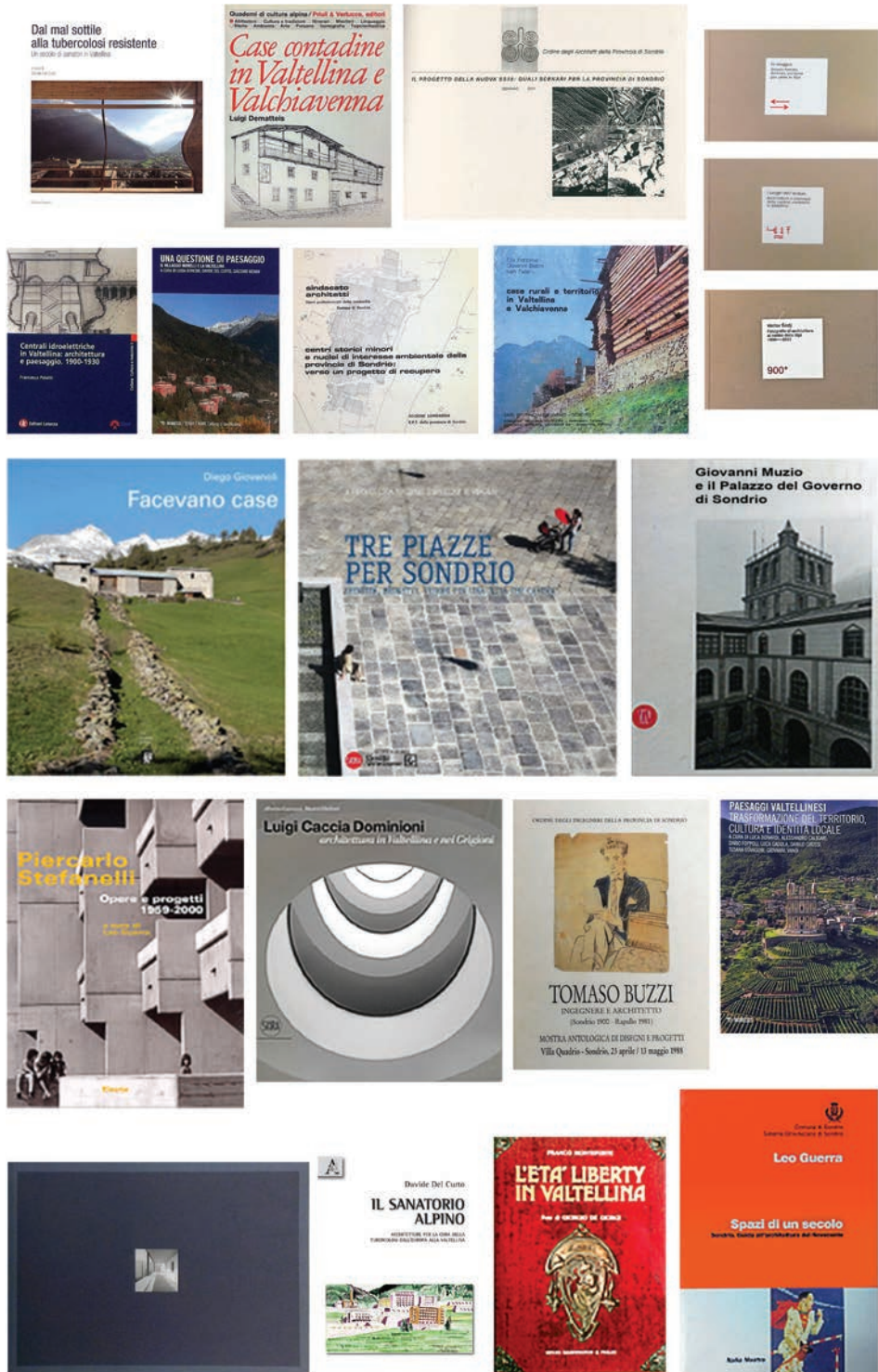
Map of the Sondrio Province

with marks on the places of interest and a legend for the works
reproduces in the following pages

LIVIGNO

MADESIMO

CHIAVENNA

COSIO VALTELLINO

VALMASINO

BERBENNO DI VALTELLINA

CASTIONE ANDEVENNO

SONDRIO

PONTE IN VALTELLINA

POSTALESIO

ALBOSAGGIA

MONTAGNA IN VALTELLINA

PIATEDA

MORBEGNO
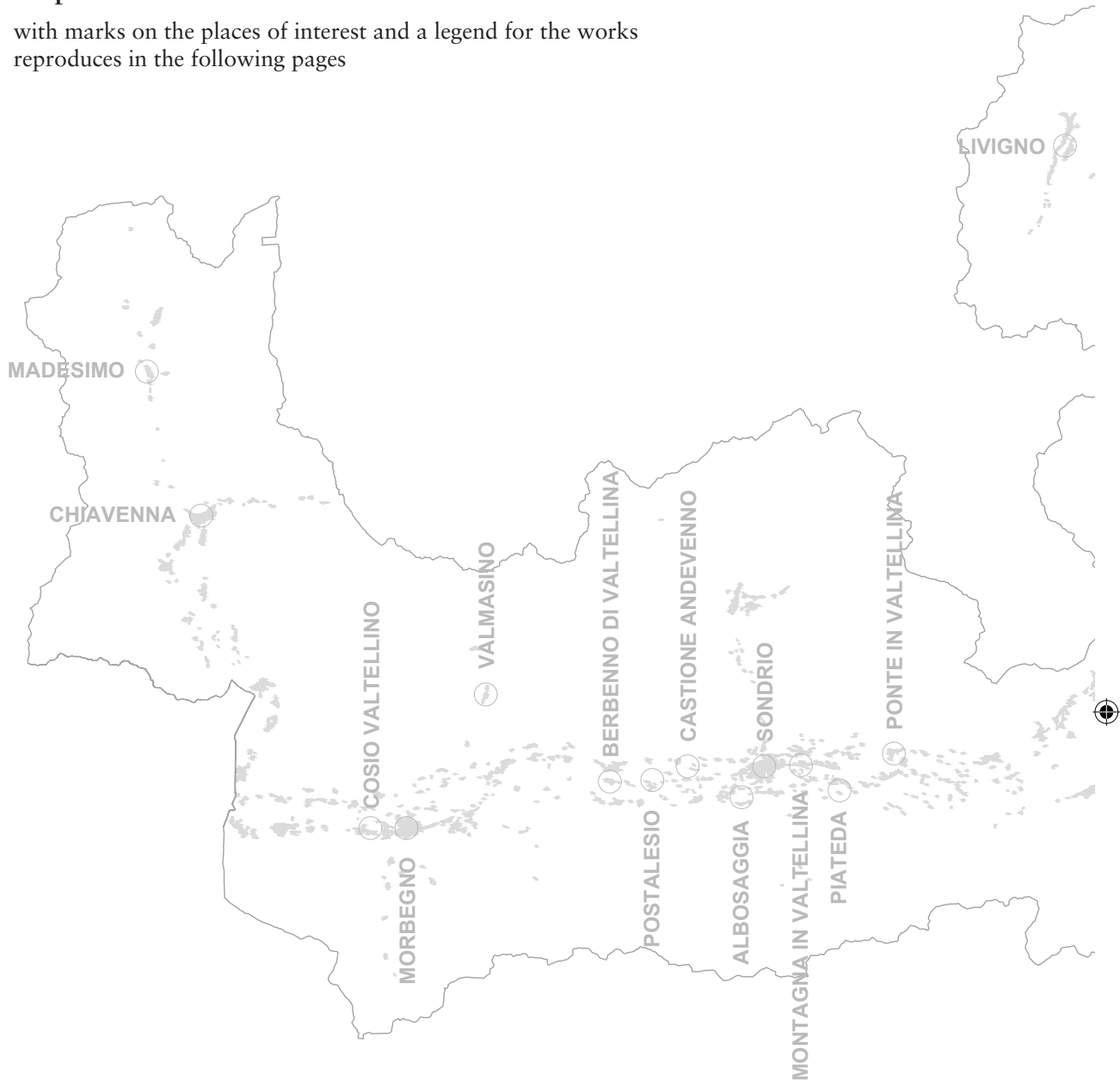
Architectures - Buildings and public spaces

1 - ACT Romegialli, Enlargement of the gra-
veyard, Regoledo di Cosio, 1999-2000

2 - Enrico Scaramellini, Guido De Novellis,
Rest Area, Madesimo, 2002

3 - Fabio Della Torre, Claudia Bigi, Aurelio
Valenti, Francesca Ciapponi, Civic Hall, Town
Hall Square, Montagna in Valtellina, 2000-05

4 - Fabio Rabbiosi, Pedestrian and cycle brid-
ge, Morbegno 2005

5 - Simone Cola, Recovery of the graveyard
area in Cepina, Valdisotto 1999-2006

6 - ACT Romegialli, Parking space of the 'cam-
pus', Sondrio, 2006-07

7 - StudioA3architettiassociati, Railway station
interchange, Sondrio, 2007

8 - Andrea Forni, Enlargement of the Piazza
cemitery-Valdisotto, 2005-08

9 - Simone Cola, design for street furnitures in
Pianazzo, Madesimo 2007-08

10 - Marco Ghilotti, Daniele Vanotti, Re-
furbishment of Piazza Unità d'Italia, Tirano,
2005-11

BORMIO

VALDISOTTO

TIRANO

16 - Simone Cola, Information point and rest area, Postalesio 2001-04

17 - Simone Cola, Nicole e Piercarlo Stefanelli, Studio Sibilla Associati, Al Studio, Al Engineering, Community public services centre, Cepina di Valdisotto, 2004-05

18 - Stelline S.I. - Fabio Della Torre, Fernando Grattirola, Refurbishing of a bank branch Via 18 - Ambrosetti/Via Vanoni, Morbegno, 2007-08

19 - StudioA3architettiassociati, Robustelli's firm offices, Tirano, 2008

20 - ACT Romegialli, Padiglione Onlus Martino Sansi, Cosio Valtellino, 2013

21 - ACT Romegialli, Refurbishment and enlargement of a commercial and residential building, Cosio Valtellino 2013

22 - Giovanni Vanoi, Claudia Gusmeroli, On Site headquartes, commercial building, Castione Andevenno 2011-14

Architectures - Residential buildings

23 - Zelig Associati (Cattone, Cola, Selvetti), Single.family home, Ronchi di Mossini, 1997

24 - Giovanni Vanoi, Casa RF, Single-family home Berbenno di Valtellina 2002-24

25 - Giovanni Vanoi, Villa AZ, Single-family home, Berbenno di Valtellina 2003-05

26 - Pierluigi Pastori, Single-family villa, Ponte in Valtellina 2005

27 - Paolo Delvò, Refurbishment of a residential building in the Scarpatetti distrct of Sondrio 2006

28 - ACT Romegialli, Two-family house, Morbegno 2006

29 - Simone Cola, Refurbishment with enlargement of a single-family house, Mossini 2008

30 - ACT Romegialli, 'Dmb' House, Montagna in Valtellina, 2010

31 - Guiducci e Mercandelli Architetti Associati, Single-family house, Piateda, 2011

32 - Enrico Scaramellini, Madesimo House, Madesimo, 2010

33 - Enrico Scaramellini, Renovation and enlargement of a private house, Madesimo, 2014

34 - Giovanni Vanoi, Claudia Gusmeroli, refurbishment and enlargement of a rural building, Castione Andevenno 2011-14

35 - Simone Cola, 'MP' single-family house, Albosaggia 2013-15

36 - Andrea Forni, Nicola Stefanelli, Avant-garde residential building "Il Granello", Sondrio, 2014

Architectures - Manufactoring/Tertiary sector

11 - Simone Cola, Paolo Bissoni, Central kitchen for catering services, Via Valeriana, Sondrio, 2000-01

12 - Simone Cola, Fumarogo Sport Center, Valdisotto 1999-2002

13 - ACT Romegialli, House of the Mountain Guides, Val Masino1989-96

14 - Giovanni Vanoi, Valmetal headquarters, workshop, Berbenno di Valtellina 2002

15 - Andrea Forni, Ski resort, Oga ValdiSotto SO, 2002

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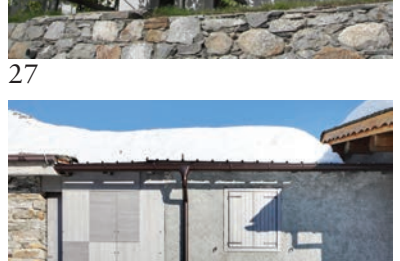
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Dolomiti Contemporanee.
A regeneration strategy for built landscape
Gianluca D'Incà Levis

Dolomiti Contemporanee (DC) is a cultural innovation project which since 2011 has been working through contemporary art and networking strategies to regenerate a number of major "hub site" in the landscape of the Dolomites as a UNESCO World Heritage Site.

It is also through the work conducted in these extraordinary sites that the landscapes themselves – economic, cultural and social – have come to be formed and take shape in their interaction with people.

For Edoardo Gellner, the landscape is generated by the interaction between natural environment and the work of humans.

And we must admit that no landscape value, no UNESCO heritage can exist before people, who arbitrarily determine the criteria for evaluating the asset itself, deeming it as such. In this, heritage is not absolute: it is a (relative) function of humanity. It must be constantly redefined, through life and practices, responsible for commitment.

DC is concerned with sites which are major (former) economic or industrial production centres, or symbolic places in relation to a dynamic interpretation of the living area, which is thus built by people every day, through its social, cultural and productive actions.

These sites are now living a critical phase, a phase of inertia which needs to be overcome, to rehabilitate them as local resources.

Indeed, they are not dead, and their potential which remains intact below the surface, awaiting a regenerating idea.

The major sites (such as the former ENI Village in Borca di Cadore, where the Progettoborca platform is active) or particularly significant ones (Nuovo Spazio di Casso, in the Vajont area, where Twocalls, another

platform for a working re-interpretation of the landscape, operates) become "total construction sites" which work through contemporary art, the effective force of ideas, the culture of renovation, creative enterprises, strategies that cut across politics, economics and development, the fluid, aggressive models of an open, inclusive design approach.

   Built heritage, quality contemporary design, local (and extra-local) sustainable development strategies: these expressions belong to us, it is on this that we work daily, rejecting and breaking free of any dangerously schematic approaches or excessive segmentation, in order to create procedures that are new, interdisciplinary, shared and concretely functional, and which are capable of rethinking the mountain and contemporary landscapes.

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Fig. 1. *Borca project* (Progettoborca) at the former Eni Borca di Cadore Village. Photo by Giacomo De Donà ©

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Fig. 2. The *New DC Space of Casso* (Nuovo Spazio di Casso) with the Monte Toc in the background. Photo by Giacomo De Donà ©

Fig. 3. The *New Casso Space* with the host Marc Augé, who looks at the Monte Toc through the window. Photo by Giacomo De Donà ©
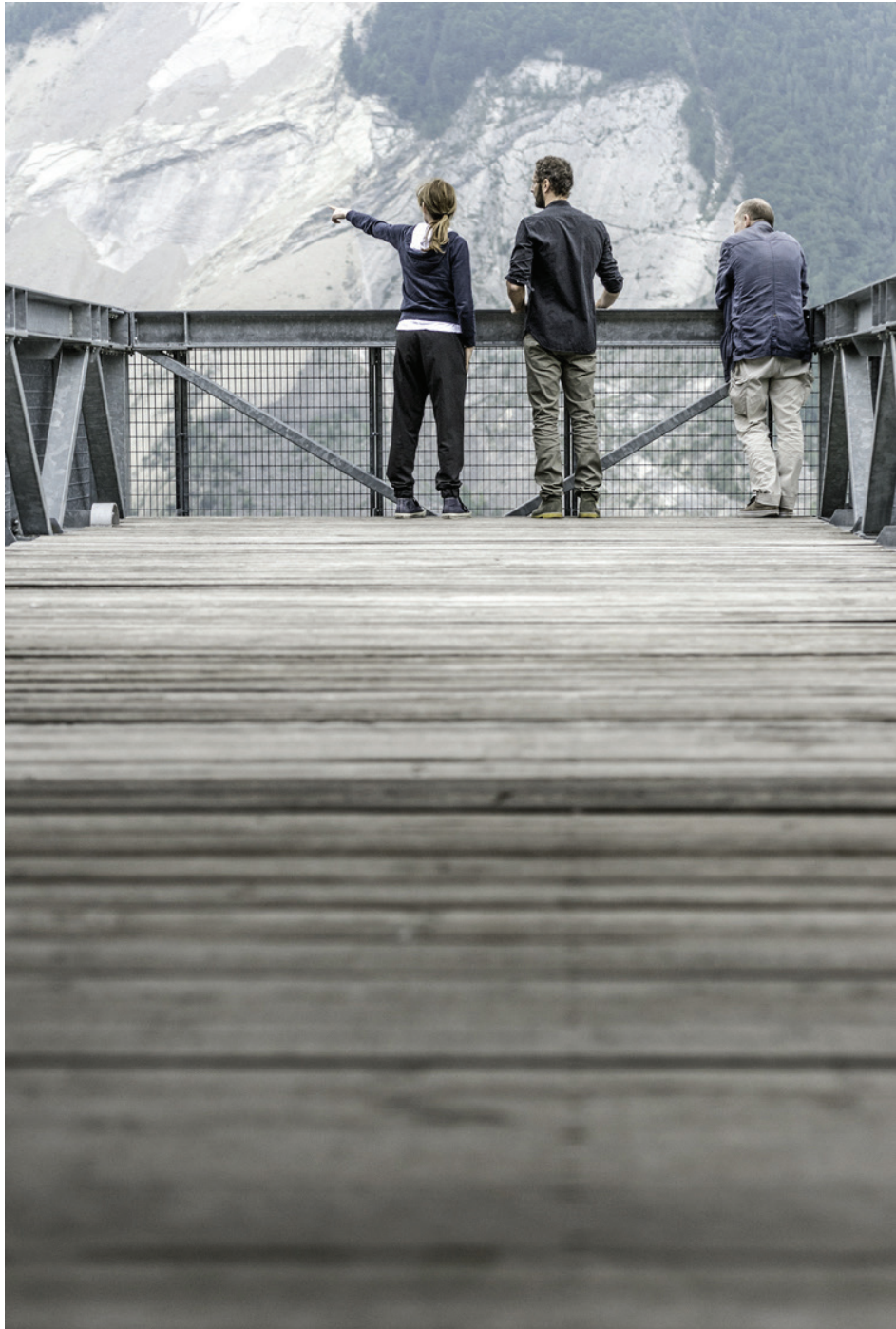
Fig. 4. The *New Casso Space*, boardwalk in front of Monte Toc. C.D. Friedrich in the contemporary landscape at Vajont. Photo by Giacomo De Donà ©

Fig. 5. *Progettoborca*, Public Hall (Aula Magna alla Colonia) at the former Eni Village summer-camp, designed by Edoardo Gellner, Borca di Cadore. Photo by Giacomo De Donà ©

Fig. 6. *Progettoborca*, Former Eni village, Atelier cabin in the summer-camp. Photo by Giacomo De Donà ©

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Fig. 7. Atelier for artists at the summer-camp. Photo by Giacomo De Donà ©

A new season for the Alps?
10 theses for the contemporary alpine territory project
Antonio De Rossi

Introduction

Perhaps the paradigm of the "Alps heritage" seems to be entering, after more than three decades of life, its descending phase. Born in opposition to the process of the industrial transformation of tourism in the mountains, running alongside the phenomenon of abandon by the local population, which was the alpine leitmotiv of the "short century" and of the phase of urban Fordism, the paradigm of the "Alps heritage" has come to be founded on the centrality of the public player and on considerable funding, particularly from Europe. This focuses on a precise idea: the enhancement and capitalisation of the tangible and cultural heritage (history, traditions, rural architecture, soft tourism, etc.) as a "platform" to bring out the areas which are not subject to the development of tourism from their margins.

This season, which has been undoubtedly important and has also implicated a new kind of native self-awareness, has, with time, revealed a series of limits. First of all, the centrality assigned once more to the theme of tourism. And, above all, an idea of contemporary design of the mountains based essentially on elements of the past, starting with "tangibility" and symbolic values, all recorded under historical alpine civilisation. As though it were impossible to build new values for the mountains.

Today's structural crisis, the absence of public action, and the dynamism which is definitely small scale but nevertheless pioneering and innovative, of certain local projects in places which, until not so long ago, were considered more marginal, show geographies (of players, places and values) which are strongly changing. No longer a simple tourist playground, the

Alps today present a theme which is unprecedented in many ways: like returning to being an all-round territory for living.

In all this, the new alpine architecture, the landscape project, the physical project elements entwined with those of an economic and cultural nature, care of the environment and enhancement of the resources of the mountain (water, wood, farming, etc.) play a very important role. From this point of view, a look at the most innovative protect elements is all it takes to grasp the new connection that links physical projects and new hypotheses of development and identity of the mountain. If for Carlo Mollino, alpine architecture was a "filter" capable of transforming city dwellers into skiers in the 20th century, now it's up to the new mountain architecture to translate the new themes of the Alps as a place to live in into something tangible.

From this point of view, the Alps re-propose their nature of *strategic laboratory*. in an image brought into focus for the first time by Horace-Benedict de Saussure. It is on the Alps that new development models can be tested, capable of reconciling growth and quality, innovation and enhancement of the heritages. It is on the Alps that we can establish a new agreement between the mountains and the city, the only road open to escape – as we are reminded by Enrico Camanni in *La nuova vita delle Alpi* – the false alternative between transformation and conservation.

What follows in the attempt to outline a sort of handbook of reference for the contemporary project of architecture and the alpine territory, also in the light of the new European strategy for the alpine region, Eusalp.

A. *The context*

1. *A "zero growth" territorial project*

What does this really mean and what does the application of the *third way* desired by Camanni implicate – beyond out-of-context modernisation, but also beyond mere conservation, being different but complementary phases of the same urban vision in relation to the mountain – in the physical-transformative facts of the Alpine territory?

Can the Alps become a remarkable test laboratory for an idea of territorial development capable of reconciling "zero growth" and territorial innovation processes, through a specific and meticulous wok of conservation and rewriting of parts of constructed landscape?

All modern architecture and urban planning is supported by concepts of growth, expansion and enlargement. But these concepts, especially in our mountains, are now obsolete. Here there is no "outside" towards which to expand. If anything, there is a minutely constructed, made up of a close

and continuous network of houses, canals, roads, terraces, dirt tracks and fields: in the mountains the whole landscape is *historically built*. There are opportunities for enhancement – solar expansion, ground use capacity, presence of water, etc. – and environmental risks to cope with, as the mountain populations have always known. In this framework, the obsolete logic of growth, which originates in cities, has to be replaced with the more profitable logic of the *programme*. As we are reminded by geographer André Corboz, the metaphor of the programme allows us to reason in other terms, precisely assessing the parts of the landscape that have to be conserved or reinterpreted and reused, or even radically rewritten.

The lens of the programme allows us to see the *characters* of the alpine physical space: not an opposition of constructions and nature, of "solids" on which to focus the attention, and of "hollows" considered to be of little significance, but an articulation and an entwining of natural, agricultural and built elements closely connected to one another. This vision – which is of a higher order and closely related to the specificity of the alpine territory, as well as being intrinsically ecological - leads to a radical review of the methods of conceiving the physical transformation of space. It is an understated architectural writing, attentive to the great landscape configurations determined by geomorphology. A writing with which to attempt to build a new alpine urban plan (even though the words "urban plan" are ontologically irreconcilable with this way of conceiving mountain constructions), configured as particularly sensitive to passages of scale and the constructed characters of space in all-round terms.

2. *A contextual and self-reflexive development of places*

As mentioned earlier, the mountains are profoundly articulated: there are the mountains of the great infrastructural corridors, those of the big winter tourist resorts, of cultural and soft tourism, of the rural enclaves, etc.

Every place, child of history or 20th century modernity, has acquired its *own tradition*: of language, of settlement principles, character and atmosphere. If, during the years of the economic boom and mass tourism, the urban-modernist style of speculative construction often cancelled the different identities of places, today the same risk is represented by the indistinct use of vernacular linguistic formulas, lacking in context with respect to the specific nature of places. They have a dual value: soothing the senses of guilt related to what has happened in the past, but above all, allowing new expansive strategies of constructions. The neo-rustic décor, configured as a sort of lowest common denominator of the tastes and imaginations of all the mountain players – tourists and inhabitants,

technicians and administrators –, makes it possible to make it more visually sustainable things that are perhaps environmentally less so. Consequently, in the modernist *cité des sports d'hiver* of the 20th century, stone and/or wood claddings become compulsory on at least 50% of façades.

But this physical-conceptual shortcut to the alpine territory project is coming to an end: with their wooden flower boxes, wood panelling, pre-fabricated balconies and Chinese stones imitating the antique slates, all the places in the Alps are becoming exactly the same. The permanent nativity atmosphere might seem reassuring, but the processes of *jolisation* don't seem to be enough anymore: the people from the cities and planes are look-ing for real differences and specificities.

This means that every single place in the alpine territory now needs a specific contextual project, *self-reflexive* with respect to its settlement his-tory, it culture of living and tourism, and the stratifications of character and language. It is now obvious how this "contextuality" interacts directly with the quality of living, the growth of the identity-linked processes and, above all, with the economic development of places. Reductionist and standardis-ing design cultures are the enemies not only of the landscape and the envi-ronment, but also of the growth of the local economy.

3. *The centrality of the jeu d'échelles*

More than any other space or terrestrial environment, the mountains teach us how every transformative act has effects and generates changes also on higher and lower scales than those of intervention. In the mountains, every single thing is closely linked to the others. And design has to take on responsibilities that go beyond the mere sphere of operation. This trans-scalar nature of alpine design can be grasped immediately in terms of sim-ple puro-visibilism of the landscape: in the three-dimensional space of the mountains – where perspective visions are joined by those from up high, in a game of practically infinite multiplication of the points of view –, every design operation, including the most limited, can have profound effects on the nature and perception of places.

But this *jeu d'échelles*, considered as a highlight of mountain design, is also valid for more complex dimensions than that which is merely visual. Think about the effects of physical projects in the mountains on microclimatic characteristics (exposure, wind, etc.) of places, on the water cycle, and on geomorphological arrangements. And the effects of architectural and territorial projects on the identity-related, social and economic dimension. This last element must be particularly emphasised: in the mountains, the *jeu d'échelles* applied by transformation projects is never neutral. Architectural

and landscape projects have direct consequences on the way inhabitants think and their relationship with places, on tourist mechanisms and on the layouts of the local economy. And everything has to cause us to think responsibly of the outcome of every single design action.

Again, we could say that the *jeu d'échelles* that we are taught by the alpine territory can work as a useful antidote to an idea of contemporary architecture which has transformed the theme of the absolutisation of the object – seen as a non-scalar object of design – into fetish, with the consequent cancellation of the passages of scale.

B. *Forms and methods*

4. *Network versus separation and specialisation*

Even before the environmental and landscapist point of view, the Alps represent an alternative world to the metropolises and the plains, for the potential ways of life. This is why the alpine territory attracts new inhabitants every year, attracted by the opportunities for life that these places offer, *choosing* the mountains as a space in which to live. An idea of places, of living practices and of life, based on the *network*, rather than temporal and spatial *separation and specialisation*, as happens in cities.

A network of activities, with work tending to merge with free time and with the practices and methods of tourism, and therefore with a perception of the living spaces that can be deeply aesthetic. A network of different stories, with the co-penetration of contemporaneity with the memories of people and the traces of physical heritages of history, inscribed in the places. A network of spaces, with the constructions hybridising with the natural and agricultural environment, workplaces with those related to free time and tourism. This isn't a nostalgic attempt at re-establishing an organic fullness characteristic of premodern mountains, by at exploiting the opportunities offered by the contemporary Alps.

But to make this idea of alternative network to the spatial and temporal models founded on specialisation and separation tangible, it is necessary for the architectural and territorial project to break away from a vision centred on the urban transformation of places and a *modus operandi* founded on the reiteration of "catalogued" projects. It is particularly necessary to perfect types of housing and settlements, spatial ideas and conceptions of territory-city that are specifically alpine and mountain-related, and prioritise the metaphor of *fabric* over that of a territorial architecture seen as the mere sum of single objects. A fabric of open spaces and constructions, of historical and contemporary places the spatial articulation and wealth of

which are very close to that idea of *twistedness* exulted by Giancarlo De Carlo in one of his last works.

5. *Interpretation versus construction*

Working in favour of the network, of co-penetration between past and present, between construction and nature, between workspace and living space, means, first of all, changing the paradigm that lies at the basis of the architectural and territorial project. It means weakening the centrality of the constructive and transformative act of design to prioritise the heuristic and interpretative value. In this way, the project will no longer be merely what the designer "adds", but the final layout of a place and of a site, created by the combination of elements – and above all, of meanings – which have been discovered and subsequently confirmed or changed on one hand and included *ex novo* on the other.

  This attitude, which determines a renewed attention for the maximisation of the opportunities and physical resources found in the place – an attention which has been replaced in the last fifty years by the *tabula rasa* of mechanised sites, made possible by the unlimited availability of energy from fossil fuels –, mustn't be seen as a mimetic or roughly conservative way of proceeding. On the contrary, it requires great intelligence and design-related sensitivity. Attentive and deep culture, to be able to recognise the value of the signs and traces found on the land.

6. *Putting the idea of reuse/recycling at the centre*

Corollary of the ideal of interpretation is the centrality that has to be assigned to the theme of reuse. Reuse not only of con, but also, and possibly most importantly, of the structures of open space, of historical settlement configurations, and of the "maps of sense" inscribed into the land by the peoples of the past. The idea of reuse/recycling adapts well to a philosophy of contemporaneity which, in line with the alpine civilisation of the past, aims to avoid useless waste and transformations. It is a culture of enhancement, of respect not only for History – considered as the absolute value which is paradoxically turned into non-historic value –, but also for the peoples, cultures and constructive interpretations that have been stratified in a place. An attitude of this kind requires the awareness that we are participating in a long-term constructive process of transformation of the territory which, without repudiating innovation, accepts dialectic confrontation with what was left in the ground by those that came before us.

7. *Construction and territorial substruction*

In the constructive interpretations of the alpine territory offered by the historical populations, the relationship between what has happened above ground and the geomorphological configuration of the soil is complete and absolute. Every single conoid, slope, saddle and terrace gives life to specific forms of settlement, to peculiar settlement principles. All this has been removed and the mechanisation of construction sites with the use of "catalogued" design models have gradually cancelled the territorial ground – the *substructure* – considered to be the *inner material of the project*. At the most, the hydro-geomorphological characteristics of places becomes elements of the charters of risks and restrictions, but they have long since lost their project-related value.

Yet due to the three-dimensionality of the alpine space, every constructive act of the mountain territory should be accompanied – as we are taught by Ruskin and Viollet-le-Duc – by a complementary and parallel *substructive* action. Design in section is the physical ad conceptual place through which to carry out this recomposition between ground and construction. And even before the stylistic and linguistic elements, the belonging of an architecture and a settlement to a precise geographic place is given by its capacity to constructively interpret the ground.

8. *A new figurative and conceptual minimalism*

Today the attention to environmental sustainability, to pertinent technological innovation, to the values of history and places, leads towards a new alpine architectural aesthetic. If, in the Fifties, for Carlo Mollino the expressive value of mountain architecture was the result of «slipping into uselessness», capable of going beyond the "zero level" of functionalism, today the works of Jürg Conzett and Gion A. Caminada show how the absolutisation of figurative and structural minimalism – accompanied by a higher level of technological innovation and typological invention – represents an extremely sophisticated conceptual element. This isn't traditional architectural minimalism, in which *less is more*. It is the decanting and sublimation of structural and figurative solutions which allows these architectures to configure a new relationship with the built-up landscape of the context, overcoming the false contraposition between modern and antique, between transformation and conservation.

C. *The philosophies*

9. *A laboratory for the elaboration of new cultures of local action*

The alpine territory, with its specificities and particularities, can become a remarkable laboratory to try and overcome the contemporary epistemological crisis between theories and practices. A stalemate in which, on one hand, academic knowledge cannot tangibly influence reality, risking transformation into celibate machines, while on the other, action tends to be reduced to mere operation, crushed into single occasions. This isn't just a matter of transferring theory to practice, but of refounding methods of interaction between scientific reflection and *savoir faire* – thanks to the redefinition of models of knowledge.

   From this point of view, the Alps are the ideal ground for building a new way of acting, in a conceptual redefinition of local development. A laboratory where to study and simultaneously practice new themes of research and work: technological innovation applied to territorial planning, state of the art sustainable construction the development of the timber chain, naturalistic engineering, the hydro-geological management of places, and the construction of infrastructure with zero impact. It goes without saying that all this could have considerable effects on the economy and the peoples of the Alps in the meeting between public support and private resources.

10. *Border architecture*

Last, but by no means least, is the theme of the conceptualisation of identity and local culture, through the lens of the architectural and territorial project. Attention to specificities at local level mustn't become stiffness and exultation of localist identities, of *petites patries*. Alpine architecture has always been characterised by hybridisation, a crossroads of cultures and transmigration of symbols – being a constructive interpretation of *border spaces*: geoclimatic, cultural and conceptual. This is what we have to look towards – not the re-proposition *ad libitum* of "international rustic alpine" styles – if we want to combine development and innovation, a society of knowledge and quality of living in the Alps of tomorrow.

On page 290
Fig. 1. Crotti+Forsans architetti, A. De Rossi, A. Armando, design entry for the 2-stages architecutral competition *"Plan Revel-Abitare la montagna"*, Bardonecchia, 2014

Copertura in tavole di legno a giunto aperto
Lamiera grecata verniciata
Doppio strato isolante esterno e interno
Pannelli strutturali tipo X-lam

Setti strutturali, solai e rampe scale in pannelli tipo X-lam

Serramenti in legno
Vetrate a doppia camera con gas

Rivestimento esterno in tavole di legno
Doppio strato isolante esterno in fibra di legno
Pannelli strutturali in X-lam
Strato isolante interno in fibra minerale
Doppio cartongesso

Assito in tavole di legno a giunto aperto
Struttura in acciaio zincato

Fig. 2. Crotti+Forsans architetti, A. De Rossi, A. Armando, design entry for the 2-stages architecutral competition *"Plan Revel - Abitare la montagna"*, Bardonecchia, 2014. Exploded view of the basic block
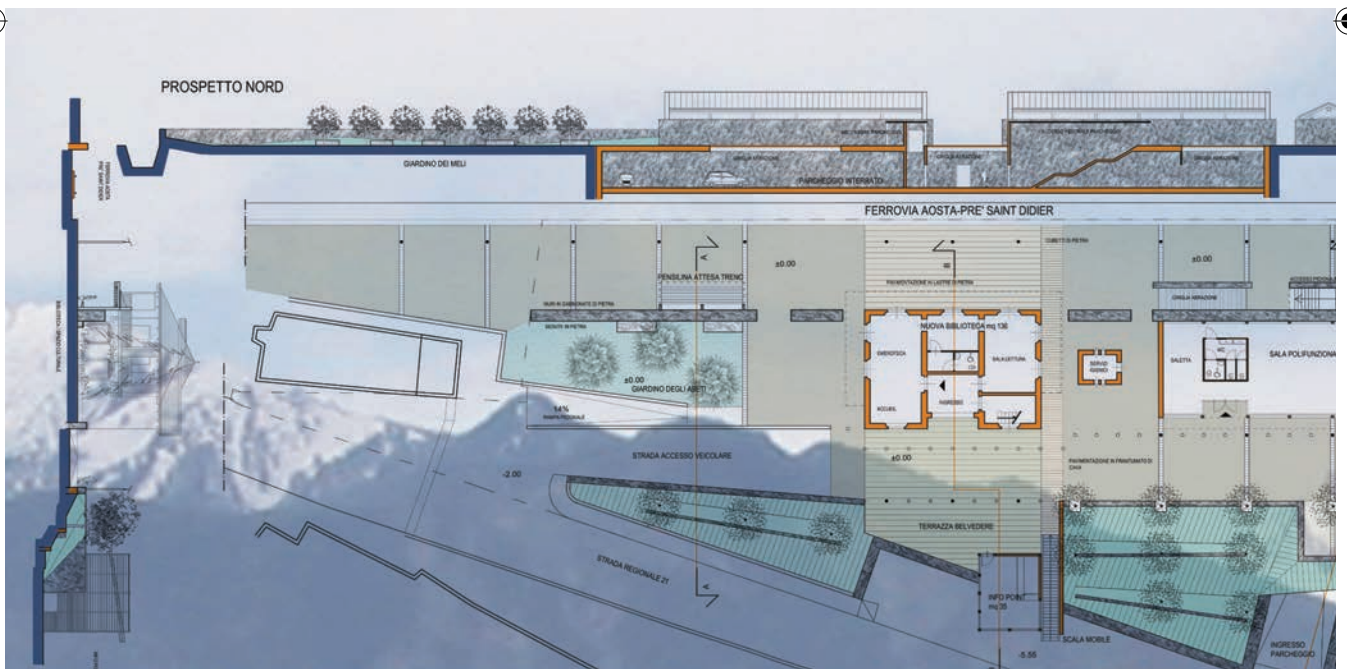
Fig. 4. Crotti+Forsans architetti, A. De Rossi, R. Dini, D. Hugonin, A. Zych, Layout for the restoration of the area of Sarre station, 2004

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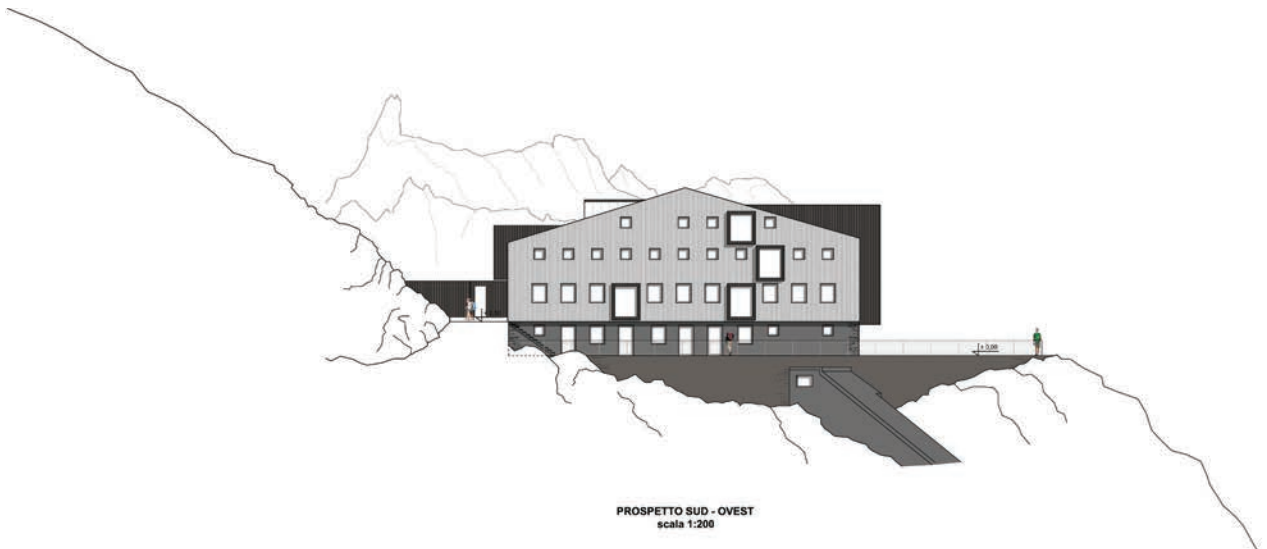
Figg. 3-5. A. De Rossi, M. Crotti, R. Dini - Department of Architecture and Design, Turin Polytechnic, Study for the restoration of the *Torino Nuovo hut*, Mont Blanc - Courmayeur, 2012. Photo simulation and southwest front
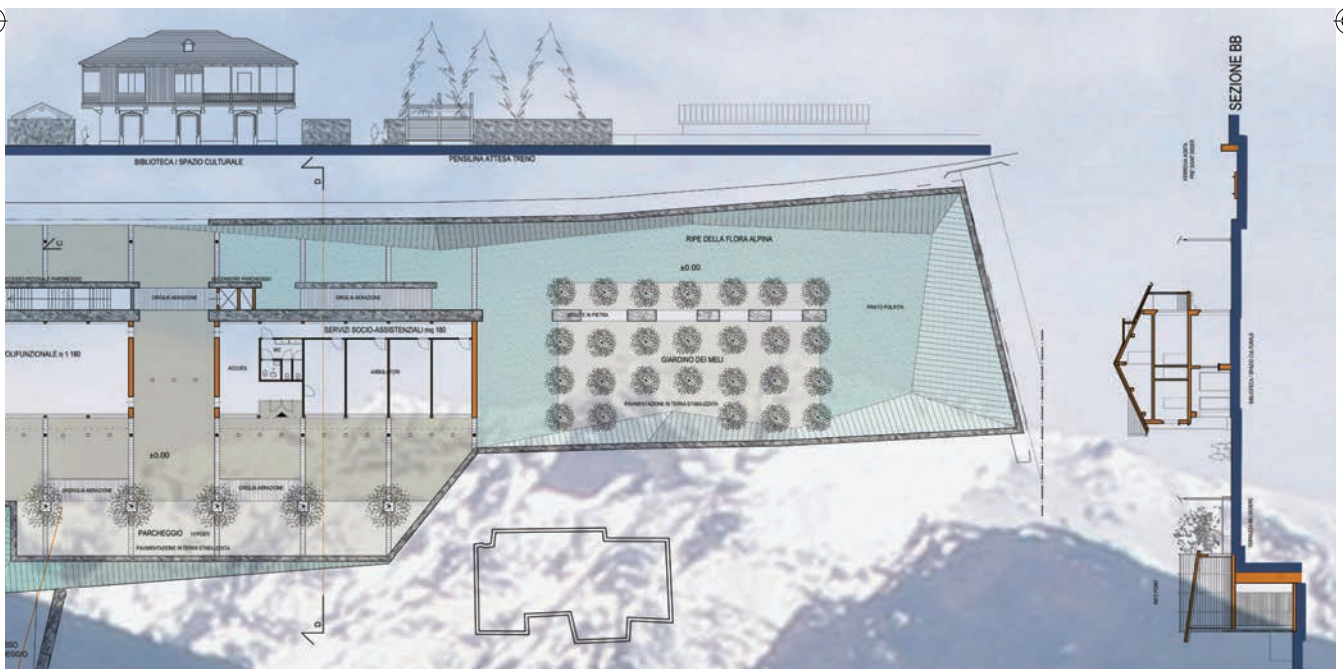
On the next page
Fig. 6. Crotti+Forsans architetti, A. De Rossi, F. Camorali. Collaborators: S. Gomes, S. Giannini. Consultants: L. Ceppa, R. Gianoglio, C. Rossato, "Transetti", layout for the *Environmental Education Centre* at Parco del Gran Paradiso, Campiglia Soana, 2007

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Der
Kristallberg

Der Fels ist
oberhalb der
Vegetations-
zone behauen
und geglättet
zu vielfachen
kristallinischen
Formen.

Die hinteren
Schneekuppen
sind mit
Glasbögen-
architektur
bebaut.

Vorne Kristall-
nadelpyra-
miden.

Über dem Ab-
grund eine
Brückenver-
gitterung aus
Glas

Safeguarding the territory or protecting the landscape. Historian's view of the Alps

Alberto Grimoldi

«The shepherd from Val Camonica, switched constantly from one local authority to another, always remained a Brescia man. The shepherd from Valsassina takes on the identity of a distant city that he has never seen, and talks about the shepherd on the next mountain as if he were from Bergamo»[1]. Carlo Cattaneo's famous words – like so many writings which establish and almost force a vision and a way of thinking, which look if not for constants then at least for long uninterrupted periods – express at best a half truth. In fact, they ascribe an emblematic value to recent, homogenous administrative divisions introduced in the Napoleonic period and confirmed during the Restoration.

Cattaneo's statement also implies a more general viewpoint, one which in flowery language could be called «autonomy and heteronomy of the Alpine space». Should studies put primary emphasis on specificities, on geographic data, on real or rather apparent invariants, or should they focus on the Alps as a space of transformation, of relations between the two opposing sides? Should they give ethnography and ethnology a special place, or read even those components within a more complex historical vision? Amidst the more general transformations in society and the evolution of knowledge and extremely variegated and rarely constant geographic data, relationships constantly change.

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1   C. CATTANEO, *La città considerata come principio ideale delle istorie italiane*, in «Il Crepuscolo», 1858, nos. 42, 44, 50 and 52; 17 and 31 October, 12 and 26 December 1858. Now in C. CATTANEO, *Scritti storici e geografici*, edited by Gaetano Salvemini and Ernesto Sestan, Le Monnier, Firenze 1957, vol. II, pp. 383-437. The passage quoted is on p. 386.

The two approaches include different ways of seeing the "landscape" understood as an image which culture restores to the territory – according to a roleplay which Claude Raffestin[2] described well – and involve the aims and the practice of safeguarding. One safeguards an image, which reflects a static and limited synthesis, made of a few often stereotypical elements; one fixes them into an unreal immobility; or one controls and administers in the long term a heterogeneous but concrete stratification of the crops and artefacts which constitute the territory[3]. This second alternative implies, also for the Alps, a particular role in the articulation of history, from transformations in society to the history of sectors, such as agriculture. One can attempt to clarify it, albeit imperfectly, relying on what is suggested by the examples rather than on the broad and coherent synthesis it deserves.

Comparative literature and the image of the Alps

In an unfortunate article in «Nuova Antologia», *Storia dell'alpinismo politico* [History of political Alpinism][4], Filippo Mariotti – a parliamentarian with a particular interest in safeguarding, Minister for Public Education[5] and a Senator since 1892, who has written one of the first studies of the relevant legislation in Italian states pre-Unification[6], concludes with the image of the Alps in Manzoni's *Adelchi*: «mille son quei monti, irti, nudi, tremendi, inabitati, se non da spirti» [there are a thousand of these mountains, bristling, bare, terrifying and uninhabited, if not by ghosts]. In this sublime romanticism reappear the oldest fears reawakened by journeys and by Alpine landscapes which have been amply verified by the sources, not mainly or only in an emotional but also in a functional sense[7]. In this context, Piero Camporesi rightly stresses that «landscape images…are

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2   C. Raffestin, *Il paesaggio introvabile,* in *Il senso del territorio,* edited by Paolo Castelnovi, Ires, Torino 2000.
3   This position is well expressed by C. Tosco, *Il paesaggio storico. Le fonti e i metodi di ricerca tra medioevo ed età moderna*, Laterza, Bari 2009, especially pp. 16-29 ("perché una storia del paesaggio").
4   F. Mariotti, *Storia dell'alpinismo politico,* in «La Nuova Antologia», July-August 1901, pp. 221-244.
5   M. Severini, in «DBI», vol 70, 2008, s.v.
6   *La legislazione delle belle arti*, Unione cooperativa editrice, Roma 1892.
7   The theme reappears in G. Castelnuovo, *Les Alpes et leurs dangers*, in *Le calamità ambientali nel tardo medioevo europeo: realtà, percezioni, reazio*ni, edited by. M. Matheus, G. Piccinni, G. Pinto, G. M. Varanini, colloque international, San Miniato, mai-juin 2008, Firenze University Press, Florence 2010, and id. *Le strade alpine fra immaginario, realtà e politica*, in J.F. Bergier, G. Coppola, *Vie di Terra e d'acqua. Infrastrutture viarie e sistemi di relazione in area alpina (sec. XIII-XVI)*, Il Mulino, Bologna 2008, pp. 189-210.

unthinkable» in the fifteenth century, when attention is concentrated on the «environmental concreteness or reality of human geography, maybe placing it into approximate categories, into purely conventional stereotypes and clichés»[8], and so the historian has the task not only of understanding how these «stereotypes and clichés» describe a mentality and at their limit determine collective behaviours, but also of lingering over what specific details can still be recognised and understood better from their material remains. Identifying what is hidden in texts written with different objectives – sometimes scientific or technical, sometimes poetic – requires a difficult and above all always open kind of research, which can be reduced to always provisional syntheses. François Walter's effort to address these stereotypes, in literature but also in other ways of representing the territory – in a work which was very ambitious but full of intuition and emotional appeals[9], and would be very significant especially for Switzerland[10] – shows the difficulty of moving beyond Camporesi's engaging and learned anthology. The Alps are reduced to a landscape, in the contemporary sense, up to its culturalist conclusions, with the establishment of modern science and its descriptions, with the aesthetics of the picturesque and the sublime. This literature too is in danger of reducing itself to the *pensée analogique*[11] so widespread in the centuries before it – that is to discourse built on other literature, not on direct observation of reality. It is the eighteenth century: the start of the crisis in the institutional but also practical model of organising transport and trade, while timber production and the Alpine mining system are changing their dimensions.

From the cities to the Pass-Staden

The relationship between pre-Alpine cities has continually changed, from the late Middle Ages and early modern period up until the present day. The distances suggested, especially in the mountains, forms of institutional autonomy which were different every time: the authority and jurisdiction became less efficient and substantial in proportion to the distance in time, rather than space, separating the seat of judicial power from the territories over which it could or should have been exercised. Sources recreate a more

8   P. Camporesi, *Le belle contrade. Nascita del paesaggio italiano*, Garzanti, Milano 1998, pp. 13-14.
9   F. Walter, *Perception des paysages, action sur l'espace: la Suisse au XVIIIe siècle*, in «Annales. Economies, Sociétés, Civilisations», 39, 1984, pp. 3-29.
10   F. Walter, *Les figures paysagères de la Nation. Territoire et paysage en Europe (16-20 siècle)*, Editions de l'École des hautes études en sciences sociales, Paris 2004, pp. 35-53.
11   Ivi, p. 37.

complex reality than Cattaneo's works represent. In the *Congregazione dello Stato di Milano*, the Valsassina, represented by its own mayor, was distinct from the rest of the ducal province, and the inhabitants of Val Camonica in the mid-1500s «long for a Venetian superintendent and will give him a convenient salary»[12], that is they aspire for institutional autonomy for Brescia within the Most Serene Republic. Uncertain borders, which until the seventeenth century frequently unravelled[13] – from the Maritime Alps to the Ligurian and Tuscan-Emilian Appenines, but also in the plains – in a mosaic of imperial feuds, and only their reduced size placed a de facto limit on the theoretically vast sovereignty of the feuding parties.

The links with the cities are counterbalanced by the complex and uncertain aspects of an Alpine specificity, which give rise, in time, to different political geographies[14]. Around the principal transit routes, what Albrecht Haushofer in the Twenties called *Pass Staaten*[15] had been organised, often extending across both sides of the Alps. The formula has enjoyed considerable success, and is close to the concrete historical conditions, if one interprets the *Pass Staaten* as the result of complex institutional dynamics, which mediate for long periods between territories with different cultures and social equilibriums. They are not the deterministic product of particular geographic, and therefore economic, conditions, which emerge «precociously compact, from the ashes of the Carolingian public order»[16]; in fact, they consolidate in the late Middle Ages and reach their apogee in the early modern period. This is the case with the complex arrangements holding together the Savoy state, and the particular development of its capital, conditioned from the beginning by factors more political and institutional than social and economic[17]: Turin is more similar to a *Residenzstadt* of the

12 Attributed to Pregadi Marcantonio da Mula, Captain of Brescia, in 1547. *Relazioni dei Rettori Veneti di Terraferma, IX; Podestaria e Capitanato di Brescia,* edited by Amelio Tagliaferri, Giuffré, Milano 1978, p. 34.

13 For the Milanese state, see A. Scotti Tosini, *Lo stato e la città. Architetture, istituzioni e funzionari nella Lombardia illuminista,* Franco Angeli, Milano 1984. *L'immagine della Lombardia nel XVIII secolo. I confini e le rappresentazioni cartografiche*, pp. 21-51.

14 See G. Scaramellini, *Tra unità e varietà,continuità e fratture: percorsi di riflessione e ambiti di ricerca nello studio del popolamento alpino,* in *Lo spazio alpino: area di civiltà, regione cerniera,* edited by G. Coppola and P. Schiera, GISEM Liguori, Napoli 1991, pp. 49-94, which gives a critical appraisal of previous studies from this point of view.

15 A. Haushofer, *Die Pass-Staaten in den Alpen*, Vowinckel, Berlin 1928 (Edition of the dissertation presented at München university in 1924).

16 G. Castelnuovo, *Lo spazio sabaudo medioevale: modelli, gerarchie, frontiere*, in «Archivio per l'Alto Adige. Rivista di studi alpini», LXXXVIII-LXXXIX, 1994-95, pp. 483-90.

17 G. Castelnuovo, *Le prince, ses villes et le politique: pouvoirs urbains et pouvoir savoyard des deux côtés des Alpes (Chambéry et Turin, XIVe – XVe siècles)*, in *Le poli-*

Holy Roman Empire, built around its sovereign. Its role, even its cultural role, has an essentially administrative foundation[18]. Other Italian capitals based their relations with the territory, great or small, which was directly subject to them, on economic relations of long standing, on investments by the city aristocracy, and on a system of relations established since the communal era.

After 1861, with the disappearance of the Savoy *Pass Staat*, Turin needed and was able to reconstruct a relationship with *its* Alps, the ones nearest to it, from which it had taken the wood, stone and building materials it needed to expand. The adjective "sub-Alpine", which the city recognised as a description of itself since the mid-nineteenth century, veiled its trauma and preserved the memory of its now dramatically reduced former role.[19]

The distance between the reality of the territory and the ways it is perceived is the context to an important part of the history of Switzerland, the last surviving *Pass Staat*, in the extent to which at the twilight of the early modern period the myth of the Alps consolidated around the Confederation.

In 1996, François Walter, republishing a revised edition of his successful 1990 book, *Les Suisses et l'environnement. Une histoire du rapport à la nature du 18e siècle à nos jours*[20] in German, chose the title, *Bedrohliche und bedrohte Natur*[21], threatening and threatened nature. Alongside the idea of territory and landscape, developed the idea of environment, the idea that is of an equilibrium to understand, eventually change and consciously manage, calculating and controlling the effects of work and everyday life with their changeable demands. The new title clarifies better how over two centuries an attitude was turned around.

tique et la ville (XVe – XVIIIe siècles), Journées d'étude, Nanterre avril 2001, Nolin, Paris 2004, p. 47-64; ID. *Lo spazio sabaudo a Sud e a Nord delle Alpi: specificità e confronti*, in *Comunicazione e mobilità nel medioevo. Incontri fra il Sud e il Centro dell'Europa (secoli XI-XIV),* edited by Siegfrid de Rachewiltz and Josef Riedmann, il Mulino, Bologna 1997, pp. 473-494.

18   For the medieval period see G. CASTELNUOVO, *Centri urbani, organizzazione del territorio e vie di traffico nell'area alpina occidentale: Chambéry, Torino e le loro montagne (X-XV secolo)*, in «Histoire des Alpes - Storia delle Alpi - Geschichte der Alpen», Volume 5, 2000, *Ville et montagne - Stadt und Gebirge*, pp. 101-108.

19   The relationship between Turin and the Alps from the mid-eighteenth to early nineteenth century is illustrated in detail in A. DE ROSSI, *La costruzione delle Alpi. Immagini e scanari del pittoresco alpino (1773-1914),* Donzelli, Roma 2014, especially pp. 221-264, (*Torino e le Alpi*), but in fact the theme reappears much more frequently throughout the work.

20   F. WALTER, *Les Suisses et l'environnement. Une histoire du rapport à la nature du 18e siècle à nos jours.* Zoé, Genève 1990.

21   F. WALTER, *Bedrohliche und bedrohte Natur: Umweltgeschichte der Schweiz seit 1800*, Chronos, Zürich 1996.

Still as a historian, Walter has also shed light on the always conflictual and problematic way in which this equilibrium has been organised socially and institutionally; in which people have governed a space so dense, more intensely crossed and contested the more difficult the terrain becomes. And again, he spoke of the relations which are instituted between societies and settlements in a territory like that of the Alps, of the ability to organise in this difficult context such an intense, complex and "artificial" form of collective life, a very special form of "urbanisation" – what with the city network and the pervasive spread of tourism – which has absorbed and in part replaced the functions of the *Pass Staat* in perpetuating the cohesion of a unique institutional whole[22].

Routes and transport

Historical research on the Alps has naturally put alongside the affairs of institutions the material, concrete business of trade and transport, the organisation of which explains a very relevant part of the activities of the *Pass Staaten*[23]. This purpose was almost taken to an extreme in the centre of the Rhaetian Alps, where the "Three Leagues" brought together Graubünen, what is now the Grisons and the province of Sondrio. A mosaic of feuds, of ecclesiastical potentates, of villages organised as small oligarchic cities, it reflected the same autonomies and the same equilibriums with which Philip II had ensured he had solid support in the State of Milan. This unique state tried to reach Lake Como and spent almost three centuries trying, with little success, to clarify whether the disputed Teglio agreement of 1512

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22   The relationship between city and territory is also central to his synthesis, *Une histoire de la Suisse*, Alphil Presses universitaires suisses, Neuchâtel 2016 (but published in different volumes since 2009).

23   A bibliographic overview of relationships across the Alps, as a whole and individual cases can be found in Reto Furter, *Urbanisierung - Transitverkehr - Bädertourismus - Alpinismus: Indikatoren zum Hintergrund des Alpendiskurses 15. bis 19. Jahrhundert*, Univ. Dissertation, Bern 2005, partially published, with updates, in distinct contributions including Reto Furter, *Traffico di transito nell'area alpina fra XIV e XIX secolo,* in *Vie di terra e d'acqua: infrastrutture viarie e sistemi di relazioni in area alpina (secoli 13.-16.),* edited by J. F. Bergier and G. Coppola, Il Mulino, Bologna 2007, pp.83-122. In the last fifty years a systematic contribution has been made by Jean François Berger (Ch. M. Merki, H.-U. Schiedt, L. Tissot, *A Jean-François Berger (1931-2009) in memoriam*, in «Schweizerische Gesellschaft für Wirtschafts- und Sozialgeschichte», Band 2, Jahr 25, 2010, pp 17-21 and pp. 23-33; J. F. Bergier, *La traversée des Alpes, moyen age te temps modernes: questions ouvertes*, in un numero interamente dedicato al tema. On the Tirolese passes in the Middle Ages see J. Riedmann, *Vie di Comunicazione, mezzi di trasporto*, in *Comunicazione e mobilità nel medioevo*, cit., pp. 109-134.

and the no less controversial Jante or Ilanz accords, and the interim treaty made at the Diet in February 1513 were *foedera aequa* or *foedera iniqua* or simple statements of submission and therefore whether the three *terzieri* of Valtellina, and the counties of Kleve and Worms, of Chiavenna and Bormio were allies or vassals[24], or whether each case was different – a headache for the old law historians[25]. The plurality of denominations the Leagues tolerated was a good response to their purpose as a free area in the *ancien regime*, which guaranteed contact between Venice and Germany's Protestant States, and at the same time between Milan, the Catholic states and the Hapsburg dominions. These were the *Pass Staat par excellence*: they controlled what remained – more than half – of the Alpine chain, or its key access points, like the Duchy of Milan.

With the annexation of the Republic of Venice, the Hapsburg Empire had for a brief time after 1814 regained maximum geographical consistency. The spread of roads suitable for vehicles and, after the middle of the century, of railways, the flow of people and goods was concentrated in a few directions where they could move quickly and in large numbers. It was a failure for the thick network of routes, with their support systems, and the permeability (or, still better, the absence) of borders which was ideal not only for the delicate organisation of transport which the *Pass Staaten* were created for, but also for the flow of people and the cultural as well as economic exchanges which enriched vast areas of the territory of the Alps.

From valley to valley, the failure of less favoured and local routes consolidated borders and increased the isolation of whole territories. Again, the Valtellina serves as an example. In the late Middle Ages and the early modern period, there were a great many crossings across the Rhaetian Alps: at Gotthard, Lukmanier, San Bernardino, Splügen, Septimer, Julier, Muretto[26], Bernina and even at Orobie there were more passes than there are today. The hub of Bormio, with its uniquely complex and "urban" organisation[27],

24   G. Scaramellini, *I rapporti fra le Tre Leghe, la Valtellina, Chiavenna e Bormio*, in *Storia dei Grigioni, (Handbuch der Bündner Geschichte),* Casagrande, Bellinzona 2000, Vol.II, pp. 142-175; *1512: i Grigioni in Valtellina, Bormio e Chiavenna*, atti del Convegno storico, Tirano e Poschiavo 22 e 23 giugno 2012 edited by A. Corbellini, F. Hitz, Institut fur Kulturforschung der Graubunden, Sondrio 2012.

25   E. Besta, *Le valli dell'Adda e della Mera nel corso dei secoli, II, il dominio grigione*, Giuffré, Milano 1964, pp. 1-13, and id., *Storia della Valtellina e della Valchiavenna. Dalle origini all'occupazione grigione*, Giuffré, Milano 1940, 1954², pp. 508-516.

26   G. Scaramellini, *Vie di terra e vie d'acqua fra Lario e Val di Reno nel Medioevo. Nodi problematici e soluzioni pratiche*, in *Vie di terra e d'acqua,* cit., pp. 11-64.

27   As recognised by an acute early modern observer, Johanesn Guler von Weineck (o Wyneck), «Raetia, das ist: ausführliche und wahrhaffte Beschreibung der dreyen Loblichen Grawen Bündten und anderer Retischen Völcker…», Johann Rodolf Wolffen, Zürich: 1616, in part. liber XI ff. 167r.- 168r.

both from a material and from an institutional point of view, has for more than a century attracted the interest of historians[28]. The altitude made such a high level exceptional, even though the services and exchanges across the main transalpine routes had supported the growth of true small cities. All economic and social life revolved around that geography of exchange, and translated into the building of settlements and the definition of road routes: the remains of these, some more extensive than others, are still easily recognisable today. The search for easier routes had privileged the Maloja pass since the eighteenth century[29], to the advantage of the Hapsburgs, who were hostile to the project of the Republic of Venice to reinforce the links between Valtellina and Val Brembana. First the Napoleonic Kingdom of Italy, then the Kingdom of Lombardy-Veneto, returned all the Lombard mountains to the context of a single state. The renovated road along the valley floor was an ambitious work also from a technical point of view, which went as far as the Stelvio pass, but did not prove very effective commercially and remained primarily a sight for tourists[30]. This continual change in communication systems – and we have referred briefly only to one of the more radical passages – is essential for describing the territory, and it was and probably remains an essential tool for organising it.

28   The publication of legal sources and documents starts at the end of the nineteenth century. The great law historian from Valtellina, Enrico Besta, devotes himself to the copious sources on Bormio in a number of works, from his slim early volume *Un comune alpigiano di transito nel medio evo*, Reber, Bormio-Palermo 1908, to *Bormio antica e medioevale e le sue relazioni con le potenze finitime*, Giuffré, Milano 1945, an essay already published in 1926 in issue no.1 of the *Archivio storico della Svizzera Italiana*, up until the last work he wrote. He is followed by Gian Piero Bognetti, who makes urban organisation the subject of his *Il liber stratarum di Bormio trecentesca*, in «Bollettino della Società storica valtellinese», n. 11, 1957, pp. 3-35; L. Martinelli Perelli, *Bormio medioevale: vie di comunicazione e strutture urbane*, in «Nuova Rivista Storica», a. 56., fasc. 3-4, 1972, p. 316-335; S. Baiteri, *Bormio dal 1512 al 1620*, Giuffré, Milano 1960, pp.24-35; and R. Celli, *Longevità di una democrazia comunale: le istituzioni di Bormio dalle origini del Comune al dominio napoleonico*, Del Bianco, Udine 1984, pp. 20-26, both founded in large part on what the Statutes ordered.The studies, published locally between the 19th and the 19th by Tullo Urangia Tazzoli are certainly full of indications, but the writing's lack of rigour can make them impossible to use.
29   M. Berengo, *"La Via dei Grigioni" e la politica riformatrice austriaca*, in «Archivio Storico Lombardo», serie ottava, vol.VIII 1958, pp. 1-109.
30   G. Donegani, *Guida allo Stelvio, ossia Notizie sulla nuova strada da Bormio all'incontro colla postale di Mals: con alcuni cenni sul rilevamento dei progetti di strade montane e sulla esecuzione pratica delle gallerie perforanti*, Tipografia Guglielmini e Redaelli, Milano 1842; to be read alongside the contemporary text by the author's son, Giovanni Donegani, see the catalogue *Carlo Donegani: una via da seguire: progettista dell'impossibile tra Spulga e Stelvio*, edited by Cristina Pedrana, Liceo scientifico Carlo Donegani, Sondrio 2001, con la bibliografia ad annum.

Cities, borders, exchange network: the Milanese example

The Milanese state saw its Northern borders shrink early from the start of the sixteenth century onwards, and besides the Ossola and immediate Prealps no mountain area belonged to it anymore. Even the Bergamesque Alps had, since the third decade of the fifteenth century, passed to Venice. The Duke of Milan – a Hapsburg, the King of Spain first and the Emperor second – always exercised a decisive influence however, both on the Confederations and, even before he officially ratified them in 1639, on the agreements reached, in Milan no less, on the Leagues. Since the Middle Ages the city's merchants had made economic agreements which directly influenced the transalpine routes[31] and the alternating affairs of the two great commercial routes, the Simplon[32] and Gotthard passes.

Luca Mocarelli's question «Is Milan an Alpine city?» is therefore not without foundation[33] and sheds light on the concrete, prosaic foundations of what in Cattaneo can be read as a search for identity, as a dubious appeal to feeling: not only do seasonal migrations from other states in the context of specific trades establish an economic integration which is constantly renewed, and then lost with industrialisation[34], but many sectors, from food to building[35], to the artisanal production of luxury goods which contributes decisively to the city's international fame, not infrequently draw their raw materials from the Alps. Rock crystals arrive in Milan from the mountains to the east of Gotthard[36] and are worked on by very able engravers,

31 G. Soldi Rondinini, *Le vie transalpine del commercio milanese dal secolo XIII al XV*, in *Felix olim Lombardia: studi di storia padana dedicati dagli allievi a Giuseppe Martini*, Ferraris, Alessandria 1978, pp. 343-484; L. Frangioni, *Milano e le sue strade: costi di trasporto e vie di commercio dei prodotti milanesi alla fine del Trecento,* Cappelli, Bologna 1983.

32 *Tradition-Vision-Innovation: Hommage zum 400. Geburtstag von Kaspar Stockalper*, Vorträge des zehnten Internationalen Symposiums zur Geschichte des Alpenraums, Brig 2009, hrsg. von Heinrich Bortis et alii, Rotten Verlag, Brig 2013.

33 L. Mocarelli, *Milano: una "città alpina"? Cambiamenti e trasformazioni tra Sette e Novecento*, in «Histoire des Alpes / Geschichte der Alpen / Storia delle Alpi», Vol. 8, 2003, *Andes, Himalya, Alpes*, pp. 225-244.

34 Ivi, pp. 237-238.

35 For building, see also D. Sella, *Salari e lavori nell'edilizia lombarda durante il secolo XVII,* Fusi, Pavia 1968, pp. 34-36.

36 As discussed by J. Simmler, *De alpibus commentarius*, in *Vallesiae descriptio*, libri duo, Excudebat Ch. Froschouerus, Tiguri (Zürich) 1574, ff. 125 r. ev., 126 r., and in more detail J. J. Wagner, *Historia naturalis Helvetiae curiosa...*, Joh. Henricus Lininnerus, Tiguri 1680, pp. 324-326. If both cite in particular the high Rhine Valley, Lumnezia and Engadin as the crystal's place of origin, what emerges is the widespread distribution of crystals across the Central Alps, observed also by Guler von Weineck, *passim*, and a certain randomness in finding them.

who create superb objects which famous jewellers mount in gold[37], and more modestly are used to make beads for chandeliers: Frederick III of Hohenzollern, the "Grand Elector" of Brandenburg, ordered the chandelier beads for the Berliner Schloss from the *Via dei Tre Re* (now the site of the Galleria Vittorio Emanuele) in Milan[38]. Then crystal, glass with iron or potassium, stripped of its impurities, will set its rapid decline in train. The "University of crystal makers" will be among the first corporations to be abolished, due to its very low turnover and therefore the very low tax collected from its members[39].

Pass Staaten: invented by a determinist geography?

When a definition, like Albrecht Haushofer's, takes hold, it is always useful to ask in what context it was produced, how it has changed its meaning from that intended by the author. Haushofer's father Karl – who shared his son's ambiguous relationship with Nazism and had a different, but equally tragic fate[40] – had been a geopolitical enthusiast and in the idea of *Lebensraum*, or living space, had taken inspiration from Friedrich Ratzel, one of his most famous predecessors as geography lecturer at Munich Technical High School. The renowned geographer had made the Alps the subject of a long, perfunctory article, for which he had proposed the title *Political geography of the Alps*, seeking to overcome the purely descriptive, exclusively naturalist approach. As a term of comparison, if not of contrast, he referred back to time and historical matters. More than in his broad, vague concepts, or his notions which were known and accepted at that time, Ratzel's interpretative work can be inferred from his subtitles (*The slowing of historical movements, The influence of the Alps on the formation of States, The political passivity of the Alps, The territorial specificity of Alpine history, The great lines of Alpine geology*

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37   L. Arbeteta Mira (ed.), *Arte transparente: la talla del cristal en el Renacimiento milanés*, Museo Nacional del Prado, Madrid 2015; P. Venturelli, *Splendidissime gioie: cammei, cristalli e pietre dure milanesi per le Corti d'Europa (XV - XVII secc.*), Edifir, Firenze 2013.

38   K. Kappenblach, *Kronleuchter mit Behang aus Bergkristall und Glas sowie Glasarm-kronleuchter bis 1810*, Bestandskatalog der Stiftung Preußische Schlösser und Gärten Berlin-Brandenburg, mit einem Beitrag von Edith Temm, Berlin 2001.

39   L. Mocarelli, *Una realtà produttiva nel secolo dei Lumi: Milano città atelier,* CLUB, Brescia 2001, p.74.

40   See J. März, *Haushofer, Karl,* in *Neue Deutsche Biographie,* n. 8, 1969, from p. 121 onwards.

in the formation of States)[41]. The «dependence of mankind's historical development on the natural conditions of his own soil, on the climate and on the animal and vegetable world» which Ratzel theorised, lends itself or would lend itself, like any good German phrase, to many interpretations, even contradictory ones, and would not be the most suitable for synthesising a vast, constantly evolving work: recent historiography, in the context of the general rereading of culture and society in the Willhelminian Era, has brought Ratzel's theories back to the context in which he wrote them,[42] and has drawn out several aspects which are closest to the sensibilities of today. Ratzel, insists Muller, is the inventor of the contemporary use of the word "Umwelt", environment. In his work, *Über die Naturschilderung*, he had legitimised literary texts as sources for the geographer to use - foreshadowing the passion for Adalbert Stifter's books[43] among architects even between the wars – and had put pictures of the landscape alongside the texts[44]. It is in this artistic genre that we find the connection to Paul Schultze Naumberg's Alpine photography: Naumberg, a painter, was President of the *Deutscher Bund Heimatschutz* which Ratzel had helped to found[45]. The seventh volume of the *Kulturarbeiten*[46], though, while criticising industrialisation, has fewer ambiguous appeals to the *Biedermaier* and to the very remote "good old days".

41 *Die Alpen immiten der geschichtlischen Bewegungen*, in *Zeirschrift des Deutschen und Österreichischen Alpenvereines*, 1896, Band XXVII, pp. 62-88, republished in *Kleine Schriften von Friedrich Ratzel*, ausgewählten und herausgegeben durch Hans Helmolt, Oldenbourg, München-Berlin 1906, vol. II, pp. 311-346. The title proposed by Ratzel was *Politische Geographie der Alpen*.

42 Gehrard Müller has summarised the salient aspects of this revision in: *Friedrich Ratzel (1844-1904). Naturwissenschaftler, Geograph, Gelehrter*; neue Studien zu Leben und Werk und sein Konzept der "Allgemeinen Biogeographie".

43 For example see W. Voit, *Vom Urhaus zum Typ: Paul Schmitthenners "Deutsches Wohnhaus" und seine Vorbilder*, in *Moderne Architektur in Deutschland, 1900-1950: Reform und Tradition,* hrsg v. Vittorio Magnago Lampugnani, Romana Schneider, Hatje, Stuttgart 1992. On the readings about Schmitthenner see also C. Weller, *Paul Schmitthenner Buch. Das deutsche wohnhaus: zur Rezeption eines umstrittenen*, textes in Hardmut Frank, Wolfgang Voit, Paul Schmitthenner 1884-1972, Wasmuth, Tübingen-Berlin 2003, pp. 47-66; the most systematic multi-authored work on architecture to date.

44 G. Müller, *Über die Naturschilderun,* R. Oldemburg, München 1904. An extract of the introduction was published in «Kunstwart», July 1905, pp. 341-349. Stifter – and his *Nachsommer,* loved by Schmitthenner – are cited on p. 346, on the "silence", *Stille,* of nature.

45 *L'Aufruf zur Gründung eines Bundes Heimatschutz* is republished in *50 Jahre deutscher Heimatbund – Deutscher Bund Heimatschutz,* Gesellschaft für Buchdruckerei, Neuß 1954, pp. 59-67 (Ratzel is named on p. 66) and cited in W. L. Rollins, *Cultural Politics and Environmental Reform in the German Heimatschutz Movement*; Michigan University Press, Ann Arbor 1997, p. 85.

46 *Die Gestaltung der Landschaft durch die Menschen*, which in its turn is divided into three volumes.

It is not by chance that Thomas Nipperdey, one of the main authors of this new vision of German history, has laid emphasis precisely on two aspects of German history, cultural heritage and landscape, then brought together the choices of the men who shaped them. Winfried Speitkamp's theories on the safeguarding of monuments[47] to the, and that Andreas Knaut's work on the defence and safeguarding of the natural environment[48], promoted by Nipperdey, do not treat these areas as specialist subjects. Both essays serve to show how and in what directions the administrative and professional bourgeoisie developed its vision of society and its ability for political action with the support of representatives of the economic and social elites.

For these movements, particularly Heimatschutz, aesthetic sensibility's role in the *fin de siècle* mentality, and a certain conservatism linked to the defence of local identities, opened people's eyes to the serious contradictions which urban drift, and the pollution of an uncontrolled industrial system, raised about the politics and institutions they were the result of: people saw the need for more involvement from ordinary citizens, or at least educated public opinion, in decision making, an involvement which succeeded, at least in part, in influencing the legislature and administration. Willhelminian Germany was more than just authoritarian capitalism or the remains of feudalism, and the vileness of Nazism was not its bourgeois culture's only possible destination: only a dangerous historical determinism would give such a summary credence.[49]

In Switzerland too an autonomous *Heimatschutz* (1905)[50] movement established itself, followed by the *Bund Naturschutz* (1909). In its origins, it moderated the landscape ethics of the French model with the environmental and identity dimension of the German model. The movement's educated bourgeois founders accepted some of its conservative tendencies in terms of taste, but they were also able to develop its progressive elements. As in Germany, in Switzerland too in the early twentieth century, the image of

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47   W. Speitkamp, *Die Verwaltung der Geschichte - Denkmalpflege und Staat in Deutschland 1871-1933,* Vandenhoeck & Ruprecht, Göttingen 1996.

48   A. Knaut, *Zurück zur Natur! Die Wurzeln der Ökologiebewegung,* Kilda-Verl, Greven 1993; *Ernst Rudorff und die Anfänge der Heimatschutzbewegung in Antimodernismus und Reform: zur Geschichte der deutschen Heimatbewegung hrsg. von Edeltraud Klueting,* Wissenschaftliche Buchgesellschaft, Darmastdt 1991, pp. 20-49.

49   Some doubts are raised by the emphasis placed on the continuity between the pre-war period and Nazism in F. Walter, *Les figures paysagères,* cit., chap. 4, *Les Métaphore paysagères*, in particular pp. 258-264 and chap. 6, *La mobilisation politique des analogies paysagères*, especially from p. 430 onwards, seeing as how, in note 257, p. 461, the title of the *Kulturarbeiten* is adapted to *Die Gestaltung der Landschaft*, published in 1915, as previously in n. 238, chap. 4.

50   *Erhalten und Gestalten: 100 Jahre Schweizer Heimatschutz,* hrsg. von Madlaina Bundi, Hier+Jetzt Verlag für Kultur und Geschichte, Baden 2005.

these places was the epiphenomenon of a reasonable relationship between resources and activities; and this vision, safe from the tragedies which marked German history, could bring along with it the protection of areas of natural beauty, and contribute, directly to indirectly, to the establishment of concepts and contemporary practices for the defence of the environment.[51]

The Alps and work

Originally, in Ratzel's essay, the *Pass Staat* is not just a socio-political but also a geographical reality and the layout of the territory is an essential part of its development. It is not by chance that the history of the Alpine area has included since its origins the constant changing of the mountains, its population and its economic sectors. In a physical context itself shaped by climactic changes, a large part of the territory's surface has been trans-formed again and again as people have exploited it in different ways.

Mineral resources – halite, iron, copper, lead and silver – were a motor of the Alpine economy from the Middle Ages through the early modern pe-riod to the first half of the nineteenth century[52]: the Davos sphalerite mines benefited from the rapid success of zinc during the Restoration[53]. As far back as the sixteenth century, though, they did not escape pollution and, on a social level, the instability produced by immigration, including of the specialised workforce: already in the sixteenth century Simmler cites these disadvantages in support of the Swiss option of limited extraction of fer-rous metal and above all rearing livestock[54], showing the ancient origins of an Alpine consciousness destined for later success. No less essential to the Medieval and Early Modern economy are the production and transport of

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51   F. Walter, *Les Suisses…*, cit., especially on pp. 116-122, emphasises the nationalist and conservative elements in particular.

52   A general overview for the Central and Eastern Alps and for non ferrous metals in H. Kellenbenz, *Le strutture dell'industria mineraria nel settore dei minerali non ferrosi e dei metalli nobili in territorio alpino,* in *Lo spazio alpino: area di civiltà, regione cerni-era,* edited by Gauro Coppola and Pierangelo Schiera, GISEM Liguori, Napoli 1991, pp. 179-202, p. 189 with a previous bibliography. For Tyrol one should add the studies of G. Mutschlechner, in particular *Bayerisch-tirolische Beziehungen im Berg-und Hüttenwesen,* in *Bayerisch-tirolische Geschichten - Bd 2.* s.e., Innsbruck 1993, pp. 200-206; *Stand und Organisation des Tiroler Berg-und Hüttenwesens im ausgehenden 18. Jahrhundert,* in *Alpenregion und Österreich*, hrsg. von Eduard Widmoser, Tiroler Landesarchiv, Innsbruck 1976, pp. 67-88; *Das Messingwerk Achenrain in Tirol*, Mon-tan-Verl., Wien 1971; *Das Messingwerk in Pflach bei Reutte: ein bedeutsames Indus-trieunternehmen zu Beginn der Neuzeit*, (with Rudolf Palme), RTW, Innsbruck 1976.

53   A. Guillerme, *Bâtir la ville. Révolutions industrielles dans les matériaux de construc-tion. France-Grande Bretagne, 1760-1840*, Champ Vallon, s.l. 1995, p. 264.

54   J. Simmler, *De alpibus…*, cit., f. 126 r.

firewood, the use of which, as Werner Sombart aptly puts it, defines a true historical period. The loss, or the substantial reduction, over the course of the nineteenth century, of this productive role, has deprived wide territories of both their social and physical structures, leading to their becoming marginalised. The demands of metallurgy and of the iron and steel industry – first their constant increase and then their crisis – had a profound influence on the tree cover, changing the appearance of whole valleys, where deforestation had a profound effect, to make way for high altitude, low output arable land and above all for the consumption of firewood, both in the home and for carbon production and fusing processes[55].

The gigantic infrastructures with which the electric industry profoundly changed vast mountains areas have been brought back under the spotlight by the recent re-evaluation of "renewable sources"; and, with the transformation of the sector's protection techniques, the infrastructures have been transformed in terms of safeguarding and re-use. In Italy, they have been brought back to the more general and in some senses apologetic and reassuring area of industrial archeology, reflecting the evidence that one had tried to give an architectural guise almost only to power stations.

Their construction at the start of the nineteenth century did not arouse particular opposition in Italy[56]. The great hydroelectric works had to cooperate in the hydrological cleansing of the territory and be linked to reforestation, as studies have underlined[57]. So it is not surprising that one of their most convinced advocates, as Prime Minister supported laws in defence of the landscape. Giovanni Rosadi, undersecretary of state for the arts from 1919-20, took inspiration from the French law of 1906[58] and the

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55   On the problem of the woods, see G. Ciampi, *il dibattito sul rimboschimento a fine secolo,* in *Storia dell'ambiente in Italia fra Ottocento e Novecento,* edited by Angelo Varni, il Mulino, Bologna 1999, pp. 145-160.

56   On the essential support of tourism promotion societies (Touring Club, CAI), mildly active in defending the landscape, contemporaries agreed. See L. Parpagliolo, *La difesa delle bellezze naturali d'Italia*, Società editrice d'arte illustrata, Roma 1923, pp. 188-189, focusing on the Touring Club's position. E. Meyer, *I pionieri dell'ambiente: l'avventura del movimento ecologista italiano: cento anni di storia,* Carabà, Milano 1995, pp. 83-84, that insists on the policy of "conciliation" between industry and environment advocated by the association. F. C. Toso, *Centrale di Fraele. Percorsi interpretativi fra conservazione dell'archeologia industriale e paesaggio idroelettrico,* PhD thesis, Politecnico di Milano, 2014, cap. IV pp. 239-243, that describes in detail the consequences in the Valtellina context.

57   Cfr. M. G. Rienzo, *Il governo delle acque come strumento di politica economica: la costruzione delle dighe in Calabria negli Anni Venti del Novecento* in *Quando manca il pane*, edited by L. Mocarelli, il Mulino, Bologna 2013, pp. 75-91, which illustrates not only the Calabrian cases but also Nitti's overall vision.

58   See the report on proposed law no. 496 (presented to the Parliament on 2.7.1910, atti parlamentari, XXIII legislatura, vol. 892 pp. 593-605). G. Rosadi, *Per la difesa del*

aestheticizing and selective way it was conceived, but Benedetto Croce, who linked his name to the law, knew well how things were moving at the beginning of the century in Germany, the big country which was still an ally[59].

Here the construction of the *Talsperren*[60] was the centre of heated debates[61]. Even within the *Heimatschutz* movement there seemed to be differentiated positions, from the scepticism of Ernst Rudorff on the consequences as a whole[62], to the possibilism of Paul Schultze Naumburg, inclined to see things case by case, satisfied by the covering with large reinforced cement stones, but critical of the "sticky romanticism" of dams and power stations[63]. His target is certainly the neo-medieval imagination which characterised the building of some of them, from the first, Eschbach near Remscheid (1889-91)[64], to the most imposing, on the Eder (1908-14), both planned with the involvement of Otto Intze, the engineer recognised as the greatest expert on the sector[65]. It is maybe no coincidence that Franz Brantzky disguises the Möhne Talsperre, the largest dam on the Ruhr[66], updating for a *Sezession* context the neo-medieval themes, but he will do the same thing with the Cologne carnival floats. The architecture competitions serve to ensure publicity and public support. The most illustrious example of these ambiguous attempts is without doubt the Klingenberg dam in Saxony, plated on Hans Poelzig's initiative[67], whose overall context and specific details were affected by recent adjustments.

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paesaggio, Tip. Bonducciana, Firenze 1911; Id., *Per la difesa delle bellezze naturali,* in *Difese d'Arte*, G.C. Sansoni, Firenze 1921, pp. 51-63.

59   As seen in the report read in the Senate on 25.9.1920, on what will become law 778, 11 June 1922.

60   G. Garbrecht, *Historische Talsperren*, hrsg. vom Deutscher Verband für Wasserwirtschaft und Kulturbau e. V., DVWK, Wittwer Günther, Stuttgart 1987-1991, voll. I and II are still useful as the most general kind of reference work.

61   *Ibidem,* pp. 247-255; an overview in D. Blackbourn, *The Conquest of nature. Water Landscape and the making of Modern Germany,* Pimlico, London 2007, pp. 179-238.

62   D. van Laak, *Der Staudamm*, in *Orte der Moderne, Erfahrungswelten des 19. und 20. Jahrhunderts*, edited by A. Geisthövel, H. Knoch, Campus-Verlag, Frankfurt 2005, pp. 194-204.

63   P. Schultze Naumburg, *Kraftanlagen und Talsperre*, in «Der Kunstwart», maggio 1906, XIX, 15, pp. 130-136, p. 135. See also D. Blackbourne, *The Conquest of nature,* cit., pp. 224-225.

64   D. Blackbourne, *The Conquest of nature,* cit., pp. 190-191, with bibliography written at the same time.

65   H. D. Olbrisch, *Intze, Otto,* in «Neue Deutsche Biographie» n. 10, 1974, p. 176; D. Blackbourne, *The Conquest of nature,* cit., pp. 187-201.

66   K. Menne Thomé, *Franz Brantzky 1871-1945. Ein Kölner Architekt in s. Zeit,* Köln 1980. (Veröffentlichung d. Abteilung. Architektur des Kunsthistorischen Institutes. d. Univ. Köln.17); F. Brantzky; *Architektur,* Gerling, Köln 1906; *Entwurf MöhneTalsperre*, in «Zeitschrift Deutsche Konkurrenzen», Band XXIII, Heft 3, 1908.

67   The most recent and detailed contribution, with a preceding bibliography is H.S. Bolz, *Hans Poelzig und der "neuzeitliche Fabrikbau". Industriebauten 1906-34*, Doc-

The social costs, the environmental problems, the risks of disaster confirmed by buildings collapsing, especially in the Alps, where the counterparty was almost exclusively the hydroelectric industry, did not stop projects happening until after the Second World War, but did often downgrade them[68].

Very curiously, then, the productive dimension and the arrangement of the Alpine territory connected to it rarely found space in the collective imagination, which has hovered between "picturesque" and "sublime" ever since these two categories of aesthetic judgement were invented.

This imagination too must be historicised: to manage a territory one must reconstruct the successive ways in which control over it has been exercised, from direct methods of concrete change, to those which operate indirectly by changing the perception of a territory and transforming it into a landscape. This dual cultural and material approach, historical more than it is aesthetic, gives the best understanding of the stratification, the fragmentary nature, the meaning and context of the "natural" and artificial elements a territory includes, even in places whose established image – based on a superficial reading of past documents - is that they have hardly changed. Laws and regulations speak rightly of "safeguarding the landscape", because "conservation" can only be applied to specific artefacts or natural elements which can be physically preserved: this, then, as Claude Raffestin would say, addresses the landscape.

Geography and history in the architecture of the Alps

Nevertheless, even architects have thought of the Alps as a possible field for applying that geographic determinism which is rightly or wrongly ascribed to Ratzel. In the Alpine environment, the natural context would have a decisive influence on the way the territory and society were organised, and therefore on construction; and would determine the characteristics of that territory and society which, if not unchanging, were stable in time, in their frailty, both from an aesthetic and historical and from a naturalistic point of view.

It is on these basic questions that the choices of "Alpine architecture" in the interwar period are to be measured: the term was coined by Bruno

toral thesis, Rheinische Friedrich Wilhelm Universität zu Bonn, 2008, in particular vol. I, pp. 53-54 e 113-126, vol.II pp. 29 e 69-85 (drawings and photos of the time).

68   For Switzerland, see F. Walter, *La resistance aux monopoles électriques,* in *Les Suisses* et *l'environnement,* cit., pp. 163-171 and 244-245; and also, in a narrower context, F. Walter, J. Steinhauer, *L. PlanziäLand unter Strom Eletrikzität und Politik in der Westschweiz,* Société d'Histoire du Canton de Fribourg, Fribourg 2015.

Reichlin, after he had demolished the concept with penetrating irony[69]. The essay, published for the first time in 1995, is influenced by the more general rethinking of nineteenth century German history and cultures in the previous decade, and makes an autonomous, critical connection to the work undertaken by German architecture historians at the end of the Seventies in revising the historiography of the International Style[70]. Republished again in 2011, in a journal which specialises in social history, when knowledge of the subject had increased, the essay reaffirmed itself as an efficient and widely shared template for research, which the studies in fact used. Moreover, while the examples were all from a German language context and a limited geographic area – Tyrol on both sides of the Brenner Pass, together with an isolated example from the Schliffkopf hut in Schwarzwald – the essay's background is the Alpine area as a whole, defined essentially by its geographic characteristics, which the great cultural flows measure up against.

Having recourse to a learned, consolidated vocabulary, to a model, dimensions, forms and materials which are the fruit of very long experiences; placing himself not in the physical environment but in a building culture and the habits it has instilled: is the path chosen by Paul Schmitthenner in his *Berghütte*, mountain hunt, in Imst, Tyrol in 1932. The building also evokes an essential immobility in ways of life; consistent with the long periods of nature, it reconnects to those Stifter passages so dear to Ratzel in his later years. The natural surroundings, but above all the hut's function as a limited holiday home, allowed Schmitthenner his archaising rigour; in an urban environment like Schultze Naumburg, learned references 'mitigated' it as we would say now. How timeless that landscape is is difficult to say, since in the Middle Ages and Early Modern periods Imst remained an important mining centre[71].

Lois Welzenbacher and Franz Baumann opt for a more direct relationship with the place's characteristics through what Bruno Reichlin defines as

69   B. Reichlin, *Die Moderne bauten in den Bergen / Quando gli architetti moderni costruiscono in montagna*, in *Neues Baun in den Alpen / Architettura contemporanea alpina*, edited by C. Mayr Fingerle, Birkhäuser, Basel-Boston-Berlin 1996, pp. 85-129. French trans.: *Quand les modernes construisent en montagne,* in *Patrimoine rural architecture et paysage de l'arc alpin*, Actes du colloque de Sion, 20-22 juin 1996, Institut Kurt Bösch/IAUG, 1998, pp. 23-61, republished as *Quand les architectes modernes construisent en montagne,* in «Histoire des Alpes / Geschichte der Alpen / Storia delle Alpi», *L'invention de l'architecture alpine / Die Erfindung der alpinen Architektur,* n. 16, 2011, pp. 273-301.

70   Starting from the general overview given by Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur: das Zeitalter Wilhelms II*, Prestel, Munchen 1979.

71   G. Mutschlechner, *Der Erzbergbau in der Umgebung vom Imst*, in R. von Klebelsberg zu Thumburg (Hrsg.), *Imster Buch: Beiträge zur Heimatkunde von Imst und Umgebung*, Wagner, Innsbruck 1954.

"action", personal interpretation. Their morphology, panoramas and exposition reflect the natural environment around them; they open up not only to new codes of reading, but also to new habits as shown by the funicular railway stations on the Innsbruck-Nordkette (1927-28) line, the architects' own destination. Still Welzenbacher, especially from 1922 onwards in the *Settari house* at Drei Kirchen, between Waidbruck and Klausen, seems to reconnect with the teaching of Theodor Fischer, another of the founders of the *Bund Heimatschutz*, and to his buildings in Tyrol; and Baumann too, in Nordkettenbahn, has recourse to long quotations, in details and fragments but also in general descriptions. On the other hand, the Buchroithner house in Zell am See (1928-30) served to demonstrate how intensely and radically things had changed in a decade.

The *Schliffkopf* hut is finally a kind of *coincidentia oppositorum*, a hendiadys coined, in one of history's many ironies, by one of the most learned and famous of *Pass-Staat* sovereigns, of Bishop Princes of Brixen, Nicolaus Cusanus. Krüger is a graduate of Stuttgart Polytechnic, he has been a pupil of Schmitthenner and he will be replaced by Paul Bonatz during his move to Turkey. After 1945 he will move to Schwäbisch Hall, and as a civil servant will work on town planning and on managing the town's monumental heritage[72]. Bonatz, near which he worked, is on the jury of the competition for building the Alpine hut, with the blessing of the local *Heimatschutz*. The use of wood, the height and inclination of the roof, the volume, the simple building materials used, seek to respond in a reasonable way to the territory's concrete conditions, to profit from its topography, to exploit its materials.

But Krüger, whose works, including the Alpine hut, have in large part been destroyed, also carried out some more radical experiments, like a house for the weekend (1934) hanging on a pole of cement[73], unique standard-bearer of an Alpine International Style typology, of Denis Pradelle's *Châlet Lang* (1949), sawed and baled for 2013 years[74], overcome by the violence and vulgarity of the current Courchevel 1850.

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72   D. Leistikow, *Architekt Dr. Ing. Eduard Krüger,* in «Burgen und Schlösser», n. 9, 1968, p. 30.

73   «Der Baumeister», XXXII, 7 Juli 1934, pp. 247-251 – Ein Wochenende Kuckusheim in Stuttgart.

74   J.-F. Lyon-Caen, *Projet de sauvegarde du chalet Lang à Courchevel 1850*, in *Les carnets de l'Inventaire : études sur le patrimoine – Région Rhône-Alpes* [en ligne], 13 octobre 2014, http://inventaire-rra.hypotheses.org/2948.

Another, new specificity

The cut-off point would come with "mass" mountaineering, the ski stations without routes in any kind of local economy and cut off from any real relationship to the old settlements: the Laurent Chappis affair is the old fable of the sorceror's apprentice, the inevitable demonstration of Theodor Adorno's statement «there is no true life within a false life» with everything that implies.

This radical form of modernity has found space in Italy in limited areas – Pila, San Sicario – of the Aosta and Susa valleys, in Turin's brief industrial hayday, before giving way to the new demands and questions of a post-industrial society. It is not difficult to interpret also this antithesis as another chapter in the successful interpretation which has already been described.

The actual alternative, in terms of the amount of building work, from a certain Valle d'Aosta to Madonna di Campiglio, has been a kind of transposition of urban and particularly suburban growth, worsened by an unbearable collection of Alpine ornaments. It was, in terms of use and property regime, a case of second homes. Having now exhausted its drive, this phenomenon has become a research subject for economic historians: they compare it with the purely unnecessary development of settlements in Tyrol, where the small hotel business prevails, an updated version of the Pass-Staaten inn, which complements but does not replace a more organised local economy.

The problems are no different if one goes down from the Alps into the plains: it is a question of maintaining and putting back into productive life a heritage of buildings which are largely underused; and remedying, on a social and cultural level, the marginalisation caused by this physical and cultural void. It is about mobilising another "heritage", the knowledge and know-how which generations have built up. But even in this next difficult context, it will be about identifying a new specificity for the Alps.

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Fig. 1. *Der Kristallberg*. Source: Bruno Taut, *Alpine Architektur*, Hagen, Berlin, 1918

Fig. 2. Tomaso Buzzi, *Drawing for a wallpaper*, «Domus», n. 3, 1928

Fig. 3. Mino Fiocchi, *Baita for Mr. Piero Fiocchi*, Bormio, 1922.
Photo by Václav Šedý ©

appendices

Authors

Dario Benetti
Freelance architect in Sondrio, he is the editor-in-chief of the quarterly «Quaderni Valtellinesi», president of the «Quaderni Valtellinesi» Publishing Cooperative and director of the four-monthly publication «Mediterraneo Dossier». He has been adjunct professor at the School of Engineering-Architecture of Politecnico di Milano between 1997 and 2005. He is founder and president of Associazione Furfulera, which has been focusing on the study and the enhancement of rural dwellings in Italy since 2008. He is the author of several publications about the landscape, history and traditions of the Alps.

Luciano Bolzoni
Architect, scholar and writer from Milan. Vice President, cultural director and co-founder of «Cooperativa Alpes». He took part to national and international conferences as a lecturer, and he is the author of several publications, among which the books *Architettura moderna nelle Alpi italiane volumi I & II, Abitare molto in alto and Destinazione Paradiso. Lo Sporthotel della Val Martello di Gio Ponti*. He has written papers on «Domus», «Ottagono», «Costruire», «Abitare», «L'Architetto», «Frames», «d'Architettura», «AL», «A» and others. He has curated various Art and Architectural exhibitions among which *I Sette Savi di Fausto Melotti, Idea del Cavaliere di Marino Marini, Oggetti Misteriosi di Gio Ponti, Views di Marcio Petrus e Andrea Rovatti.*

Ramun Capaul e Goridan Blumenthal
Capaul & Blumenthal Architects was established in 2000 in Ilanz, Canton Graubünden, Switzerland. Ramun Capaul and Gordian Blumenthal studied at the ETH Zurich, where they completed their degrees with Flora Ruchat-Roncati and Hans Kollhoff, respectively.
Their projects include the restoration of the Türalihus in Valendas (2014), the Cinema Sil Plaz in Ilanz (2010), and the renovation of Casa da Meer in Lumbrein (2002). Their work has been honoured with various awards such as the Constructive Alps Award (2015), the Philippe Rotthier European Architecture Award (2011), and the Swiss Art Award (2008). Capaul & Blumenthal taught as guest professors at the Rhode Island School of Design in 2010, and have been teaching at the Lucerne University of Applied Sciences and Arts since 2015.

Conradin Clavuot
He graduated in architecture at ETH Zürich in 1988 with Prof. Fabio Reinhart. Since 1988 he has been leading his own architectural firm in Chur. In 1991 he published the book *Le centrali nel cantone dei Grigioni* (with Jürg Ragettli). Among his main works, Vorderprättigau electric station in Seewis (1993-1994), "Rossboden Garage" car dealership in Chur (1999). The school and multifunctional hall of St. Peter in the Grisons has won the Architettura Sesto prize in 1999. He has been invited professor at ETH Zürich (2003-2006) and at Liechtenstein University (2010-2016).

Simone Cola
Freelance architect in Sondrio, he operates within the design of public spaces, building construction and restoration. As a lecturer he has addressed issues related to contemporary architecture and environmental sustainability. He has published numerous articles and projects. Between 2006 and 2016 he has been a member of Consiglio Nazionale Architetti PPC as chairman of the Cultural Department and editor-in-chief of the magazine «L'Architetto». He is a member of Coordinamento Nazionale UrbanPro, of the Coordination Committee of the Biennale dello Spazio Pubblico and of the national executive council InArch. He is an adjunct professor of Design of public spaces at Politecnico di Milano.

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Massimo Crotti
An architect, Massimo Crotti is a researcher at Department of Architecture and Design in Politecnico di Torino where he teaches Architectural and Urban Design. He has been awarded several prizes and design projects, including the renovation and enhancement of houses and villages in the Alps of Piedmont. He is a member of the scientific committee of IAM, Istituto di Architettura Montana, run by the Politecnico di Torino, and has published articles and papers on topics concerning life and architecture in the mountains.

Gianluca D'Incà Levis
He graduated in Architecture at IUAV University with Guido Masè and he is creator and curator of «Dolomiti Contemporanee». He has opened the New Casso Space (Casso, Erto e Casso, Pn.) where he operates as curator. In 2014 he has been a research fellow at the Management Department of Ca' Foscari University in Venice leading a study on the topic of "Cultural entrepreneurship and creative industries as factors of local development. Territorial branding and creative regeneration. Rethinking nature and industrial landscape through contemporary art".

Antonio De Rossi
Architect, full professor of architectural and urban design and director of the Istituto di Architettura Montana (IAM) (Mountain Architecture Institute) research centre at Politecnico di Torino. He has been working on contemporary transformations of the alpine territory and landscape for some time, with various projects created in the mountains. He recently published, with Donzelli, the work in two volumes *La costruzione delle Alpi*: the first book, published in 2014 with the subtitle *Immagini e scenari del pittoresco alpino (1773-1914)*, won the Rigoni Stern Prize and the Acqui Storia Prize in 2015; the second volume, *Il Novecento e il modernismo alpino (1917-2017)* was published in 2016.

Davide Del Curto
Architect and Ph.D in Conservation of Architectural Heritage, he is Associate Professor at the Department of Architecture and Urban Studies of Politecnico di Milano, where he manages the Laboratory of Analysis and Diagnosis of the Built heritage and teaches Architectural Restoration. He has taken part to the restoration of monuments and sites such as Arena di Verona, S. Andrea cathedral in Mantova, Trostburg castle in Waidbruck, the Palazzo del Cavalleggero in Sabbioneta and the former Sanatorium Village in Sondalo. He is the author of various publications on the topics of restoration and preventive conservation of historic buildings.

Yvan Delemontey
Architect and Ph.D. in architecture, he a researcher at the Laboratory for the Conservation of Modern Architecture (TSAM) at the École Polytechnique Fédérale in Lausanne (EPFL). His work focuses on the prefabrication systems developed after 1945 and on the preservation of the XX century architectural heritage. He recently published the book *Reconstruire la France. L'aventure du béton assemblé, 1940-1955*, Ed. de la Villette, Paris 2015.

Roberto Dini
Architect and PhD at the Politecnico di Torino, where he work as researcher and teacher. He studies the recent transformations of the alpine landscape and territory. His publications include Guardare da terra. *Immagini da un territorio in trasformazione. La Valle d'Aosta e le sue rappresentazioni (2006), Architettura alpina contemporanea (2012), Architettura e territorio alpino. Scenari di sviluppo e di riqualificazione energetico-edilizia del patrimonio costruito (2015)*.

Caterina Franco
She graduated in architecture at Politecnico di Milano in 2013 and is now attending a Ph.D program in architecture at the laboratory de l'Histoire de l'Architecture, édifices-villes-territoires of Grenoble École Nationale Supérieure d'Architecture, under joint supervision with Politecnico di Milano. The Ph.D thesis, entitled *La construction d'un territoire pour le loisir de masse. Les Alpes franco-italiennes dans l'après-Seconde Guerre mondiale*, is directed by Catherine Maumi and Emilio Faroldi.

Luca Gibello
Architect and Ph.D in History of architecture and urban planning, he has been the director of «Il Giornale dell'Architettura» since 2015. He combines his interest in architectural history with his longtime passion for mountaineering (he has climbed 64 out of the 82 peaks of the Alps that exceed 4000 meters). He published *Cantieri d'alta quota. Breve storia della costruzione dei rifugi sulle Alpi* in 2011, which represents the first systematic study on the subject. He founded in 2012 and leads the cultural association Cantieri d'alta quota, which aims at the study and the exchange of knowledge about the history, construction and management of Alpine huts and bivouacs.

Alberto Grimoldi
Architect and full professor of restoration at Politecnico di Milano, he directs the Graduate School in Architectural and Landscape design and has been the coordinator of the Ph.D. in Preservation of architectural heritage. He has been invited professor at Geneva University and at École des Chartes. He has designed the restoration of monumental buildings such as S. Andrea cathedral in Mantova, the Centro Nazionale per il restauro degli Strumenti Musicali in Cremona and has been a consultant to the restoration of the Arena di Verona. His publications concern architecture, restoration and construction history.

Wolfgang von Klebelsberg
Freelance architect in Bolzano, he is the vice-president of Südtiroler Burgeninstitut (south Tyrol castles association) and of Associazione Dimore Storiche Italiane sezione Trentino/Alto Adige. The Associazione deals with the protection and preservation of historical and architectural monuments belonging to private owners, in particular it focuses on the preservation of castles, ruins, dwellings and fortified sites as well as the cultural assets they contain. He has been managing the prize "Albergo storico dell'anno in Alto Adige" since 2006.

Panos Mantziaras
Architect-engineer and Ph.D in Urban Design and Planning at Université de Paris 8. He is the director of the Braillard Foundation in Geneva. He has worked as an architect in Greece, Japan and France, between 1990 and 2007.Ha has taught at Columbia University, at the École Polytechnique Fédérale de Lausanne, at the École d'Architecture de Lyon and at the École d'Architecture de Clermont Ferrand. He has given lectures in the United States, Canada, Japan, Germany, Switzerland, Finland, Italy, Spain and Greece. He has published articles in various international magazines and has written *La Ville-Paysage. Rudolf Schwarz et la dissolution des villes*, Métispresses, Genève 2008.

Paolo Mellano
Architect; from 1989 to 2013 he worked with Flavio Bruna, with whom he founded the Bruna & Mellano studio of associated architects in Cuneo. Together, they took part in numerous architectural competitions and tenders, winning prices and attaining acknowledgements. Their works have been published in major Italian and foreign magazines and journals. In 2006, the monograph entitled *Bruna&Mellano, Architetture nel paesaggio*, was published by Skira.

Paolo Mellano is Full Professor of Architectural and Urban Composition, and director of the Department of Architecture and Design at Politecnico di Torino. He coordinates researches funded by public and private organisations, and organises exhibitions, conventions, workshops and design seminars.

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Architect, scholar and architectural critic. He has been professor at the School of Architecture in Nancy (1983-1984) and at the School of Architecture in Geneva (1984-2006), where he has directed the third cycle of studies "Sauvegarde du patrimoine bâti moderne et contemporain". In 2005 he has been invited professor at Mendrisio Academy of Architecture, where he is now professor emeritus. Since 2002 he has cooperated with Fondazione Archivio del Moderno and has curated several exhibitions and publications of international relevance. His numerous publications investigate modern and contemporary architecture with a special attention to the relationship with the Alps.

Armando Ruinelli
Freelance architect in Soglio, he co-founded Ruinelli Associati Architetti SIA with Fernando Giovanoli in 2000. He has realized several projects in Switzerland and Germany. He has been awarded with numerous prizes and recognitions, among which "Haeuser Award" in 2005, "Best Architects Award" in 2008 and 2011, "Haus des Jahres" in 2011. He has been invited professor at the School of Architecture of Biberach a.d. Riss (Germany) and has taught at the School of Architecture of Kaiserslautern (Germany). He is member of the committee for the architectural culture of Tyrol and of the Provincia di Bolzano. He also is a member of Federazione degli Architetti Svizzeri (FAS).

Enrico Scaramellini
Freelance architect, he has founded Studio ESarch based in Giussano and Madesimo. He has designed a number of projects regarding the Alps. He has taken part in symposia and seminars in Italy and has been member of several landscape committees. In 2012 he was one of the finalists for the Medaglia d'Oro prize for the italian architecture and in 2014 his works have been displayed at the Italian Pavillon in the Biennale di Venezia. Since 2003 he has been adjunct professor of Architectural composition at Politecnico di Milano.

Rosa Tamborrino
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and held conferences in a number of Italian and foreign universities. In 2016-2017, Professor Tamborrino is leading an International Joint Research Project involving Politecnico di Torino and the University of California, Los Angeles. She is Visiting Professor at Ecole des Hautes Etudes en Sciences Sociales, Paris (2017). She is Vice-President of the AISU (the Italian Association of Urban History), a member of the editorial board of the journal «Città e Storia», and of the journal «DigitCult, Scientific Journal on Digital Cultures». She is a member of the City History Museums and Research Network (Barcelona). Her research focuses on contemporary urban history and architectural culture. She founded the research group I_CHange Cultural Heritage (www.i-change.polito.it) with other scholars for interdisciplinary research that uses digital tools in the academic field of History.

Alberto Winterle
Freelance architect in Trento, he co-founded Studio weber+winterle with Lorenzo Weber in 1998. He has been editor and, since 2015, director of «Turrisbabel», magazine of the Foundation of Ordine degli Architetti della Provincia Autonoma di Bolzano. He is adjunct professor of urban planning at the Engineering-Architecture School of University of Trento since 2009. He is member of several landscape and urban committees. He has been President of Ordine degli Architetti PPC of Trento between 2011 and 2015 and he has been the coordinator of the association Architetti Arco Alpino since 2015.

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