Thermal Delight in Standardised Architecture

Between Thermal Gradient and Spatial Movement

Tiffanie Genilloud, HS 2024, Honey, I shrunk the house, ETH Zurich

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Repetition

Walking through the village of Neuendorf, one particular type of house attracts attention. Single-family houses built in the 1970s and 1980s are repeating themselves. Their particular, recurring shape, although slightly varied, is duplicated in the Neuendorf landscape.

With its asymmetrical gable roof, the shape gives the house a particular character, positioning and orientating the building in the landscape in a specific way, at first glance. However, throughout the village, the houses multiply and each seems to choose a specific orientation according to criteria as numerous as there are replicas in the Neuendorf landscape.

The Banackerweg 1 single-family house is the starting point for an exploration of this type, characteristic of Swiss suburbanisation in the 1970s and 1980s.

Model of Collectiv Imaginary

This type of villa proliferated across Switzerland during this period, becoming a familiar feature of the Swiss landscape. Yet, despite their omnipresence, they seem to remain anonymous: they have no specific names, and do not appear in architectural literature. They can be found in fragments in advertisements, and they are reproduced and commercialised in miniature, underlining their importance in the collective imagination and their place in the common architectural trends of the time. They embody the banality of an era when the single-family house became both a consumer product and a symbol of rising social status for the middle classes.

Among this landscape of standardised villas of the time, one of them appears in an article in the Eternit promotional magazine in 1969, where this house is highlighted for its use of an emblematic material: fibre cement slate, and its type is referred to by the brand as 'Kappendächer' (Cap Roofs). This name underlines the dominant role of this material in the visual and symbolic definition of these houses.

Material Culture

These houses are characterised by their materiality, especially their roofs, which are covered with Eternit fibre cement slates, capping the house like a cap, in the words of the Eternit brand. Eternit, a highly influential Swiss brand at the time, and now renamed SwissPearl, was a symbol of technological progress and industrial innovation. The brand was representing Swiss ingenuity and the country's ability to innovate in building technologies at that time, although later health concerns about asbestos led to changes in how the material was produced. The shift at this time from traditional materials such as wood and ceramic tiles to processed materials indicates a transformation in material culture towards modernisation and the use of synthetic materials in construction. In using this material, the builders of these houses were part of a wider cultural movement to adopt the modern building techniques and materials that defined the era.

Suburban Swiss Product

In Switzerland in the 1970s and 1980s, the middle class aspired to live in single-family houses while minimising their maintenance. The middle class wanted to be protected in a functional, modern and affordable house. These houses reflect this transition to a consumer society focused on functionality, quality, durability and everyday comfort. The advertising campaigns by Eternit, promoting its fibre cement slates, were perfectly aligned with these needs, promising resistance to the 'harshest' Swiss climates, long life and simplicity of maintenance, thus contributing to the image of these houses as functional and timeless products.

The choice of building materials such as Eternit and the functional, modernist design of houses of this type bear witness to a material culture focused on accessibility and practicality for the burgeoning middle class, and to the social and technological changes that shaped Switzerland at the end of the 20th century.

Fireplace and Social Representation

The house becomes a product, an efficient system for good living. Its interior was also strongly influenced by the trends of the time. The interiors are 'mise en scène.' The volumes characteristic of this type of house give the space a 'high standing' character, reflecting the desire for social representation at the time. The fireplace takes a central place in the interior space. Projecting an idea of social representation, it seems to be spatially instrumentalised for purely symbolic reasons. And yet, through its presence, a characteristic thermal element is at the centre of this type

of house. Protected from all external climatic influences by the most modern technologies of the time, the interior of the hermetically enclosed house is imagined around the fireplace, a traditional and central thermal element in housing for centuries, conferring a tangible and symbolic warmth on the space that contains it.

Thermal Delight

While the quest of our time is to control the environment as precisely as possible, our bodies are sensitive to micro-climatic changes, and our memories are deeply marked by these sensations, in the words of Lisa Heschong, in Thermal Delight In Architecture. It is often spaces with distinct thermal qualities that remain imprinted in our memories, marking a connection between architecture, our bodies and delight.

Whether for reasons of thermal delight or for current ecological reasons, should we not learn to live with the climate rather than trying at all costs to keep it out? As with the place given to fireplaces in this type of house, should we not put our understanding of the local climate back at the heart of our way of life, in order to rediscover the spatial habits that have been lost to technology? Protecting ourselves from the climate and adapting to it is an integral part of our culture, but we are no longer aware of it because the climate is so incorporated into our culture that we no longer realise its climatic origins.

Thermal Gradient in Standardised Architecture

In the specific context of the Banackerweg 1 house in Neuendorf, this project aims to understand the specific context of this house, in order to reflect on and question how a different way of living, porous to its environment, based on the appreciation of thermal variations and on daily and seasonal rhythms can be imagined.

Through the prism of climate, the project aims to reimagine the single-family house as a dynamic space with spatial temperature gradient, where rooms move fluidly from one thermal zone to another, offering a diverse range of thermal experiences. By analysing the spatiality of the façade and its interaction with natural elements and human movement, the project aims to foster a deeper connection between occupants and their environment. Through the concept of daily and seasonal nomadism, this thesis informs how architectural spaces can adapt to the seasons, be flexible and in constant dialogue with their climatic environment.

How can the integration of thermal gradients and spatial movement within the design of a single-family house create a responsive and adaptive living environment that aligns with the microclimate, enhances thermal delight, and aligns with the daily and seasonal rhythms of its inhabitants?

Facade Porosity

Material Culture

Suburban Swiss Product

Microclimate

Thermicity and Spatial Movement

Thermal Delight

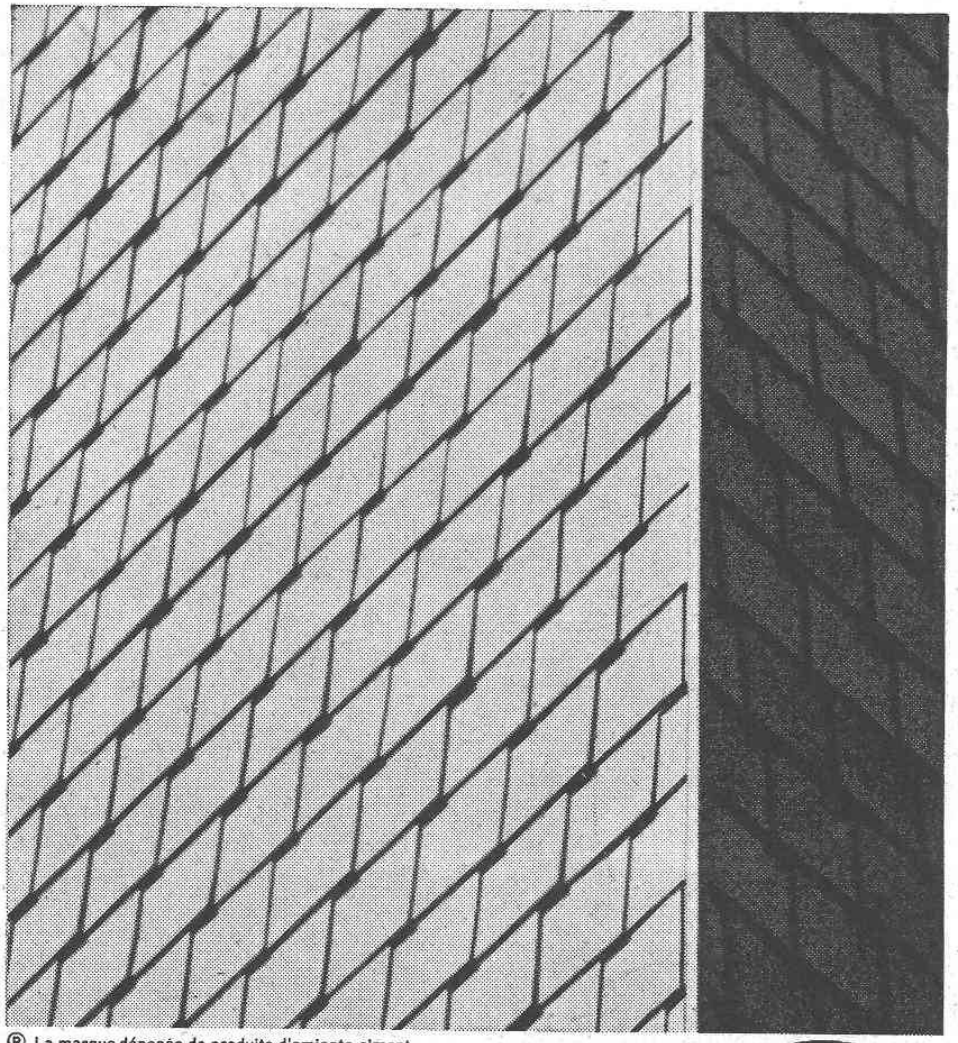
Model of Collectiv Imaginary

Daily and Seasonal Nomadism

Spatial Temperature Gradient

Repetition

Banackerweg 1 as a case study



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Ardoises en amiante-ciment pour façades, marque «ETERNIT», incombustibles et durables, la meilleure protection de la construction de bois. Les teintes et les revêtements variés permettent des solutions architectoniques des plus satisfaisantes.

Eternit publicity, Bulletin technique de la Suisse romande, 1964

model Faller H0, 1:87

model Faller H0, 1:87

model Faller H0, 1:87

model Faller H0, 1:87

Eigenheim einer Architektenfamilie in Herzogenbuchsee BE

Architekten: H.+K. Moser, Herzogenbuchsee

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Gesamtansicht des Eigenheimes von der Strasse aus.

Das Wohnhaus mit Büro liegt auf einer nach Norden geneigten Bauparzelle mit Blick auf den Jura und das vorgelagerte Flachland. Durch die Hanglage war es möglich, die gut belichteten Büroräume im Untergeschoss unterzubringen und damit Wohn- und Geschäftsteil zu trennen. Die Wohn- und Schlafräume sind auf zwei Etagen verteilt. Durch die asymmetrische Dachform erreichte man, dass das Haus sowohl von Norden wie von Süden her einen zweigeschossigen Charakter erhielt. Die grossen Glasflächen von Wohn- und Essraum erweitern den Wohnbereich bis zum Garten hin. Die Küche ist vom Essplatz mit einer offenen Bar abgetrennt. Im Obergeschoss befinden sich die Kinder- und Gastzimmer, ein Näh- und Arbeitsplatz und ein geräumiger Estrich. Für das Erdgeschoss wurde ein weiss verputztes Zweischalenmauerwerk gewählt, das einen sehr guten Kontrast zum dunklen, mit schwarzen Asbestzement-Schiefern «ETERNIT» eingedeckten Dachgeschoss bildet.

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Das Haus mit der asymmetrischen Dachform fügt sich gut in die Natur ein. Die mit schwarzen Asbestzement-Schiefern «ETERNIT» in Doppeldeckung 40/40 eingedeckte Dachhaube umschliesst das ganze Obergeschoss. Der First ist als Strakkord ausgebildet. Der seitliche Dachrand erhielt ein Ortgebinde, Details siehe gelbe Beilage.

Eigenheim einer Architektenfamilie in Herzogenbuchsee BE, H.+K. Moser, Eternit 69, 1969, 32–33.

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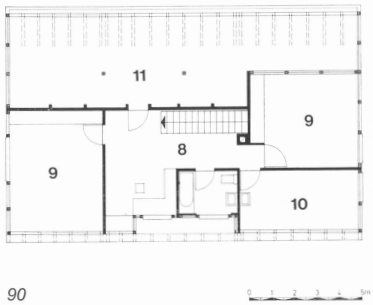

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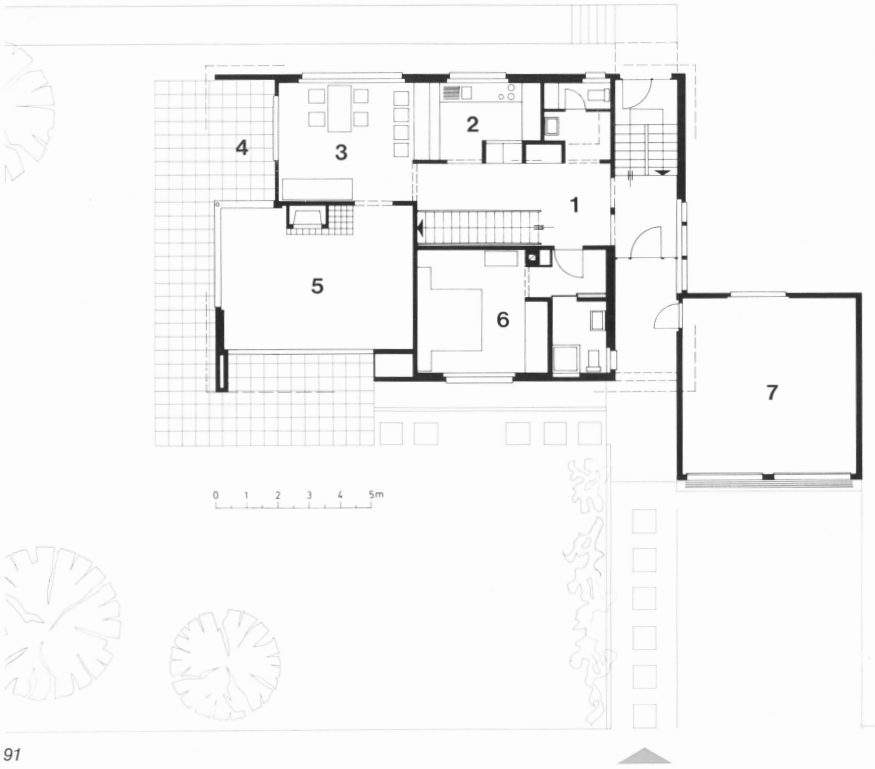

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89
Grundriss Untergeschoss

90
Grundriss Obergeschoss

91
Grundriss Erdgeschoss

1 Vorplatz
2 Küche
3 Esszimmer
4 Sitzplatz
5 Wohnzimmer
6 Schlafzimmer
7 Garage
8 Vorplatz
9 Zimmer
10 Gästezimmer
11 Estrich
12 Vorplatz
13 Büro Chef
14 Zeichnungssaal
15 Waschküche
16 Luftschutzraum
17 Oeltankraum

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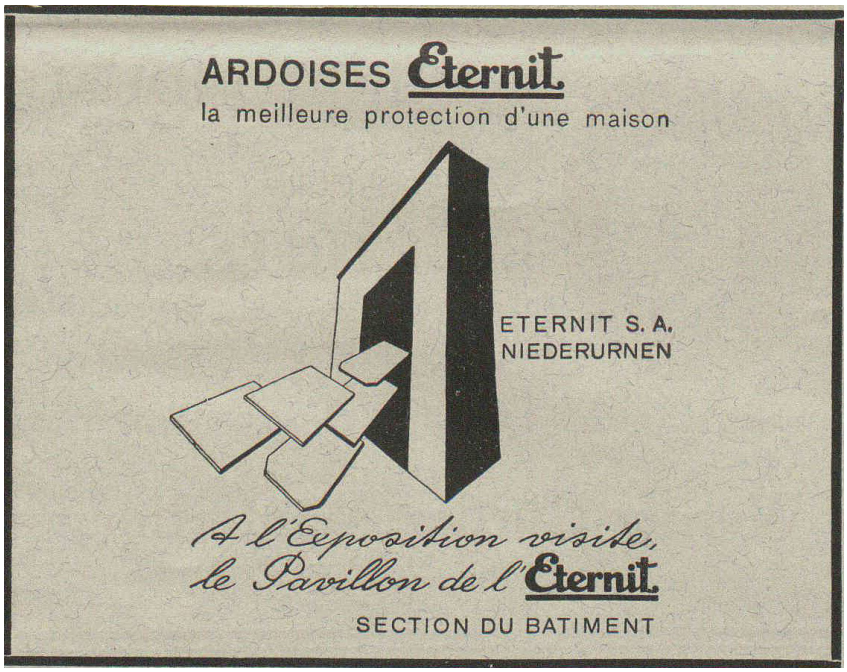
Rückfront mit den Fenstern für die Büroräume im Untergeschoss.

Material Culture

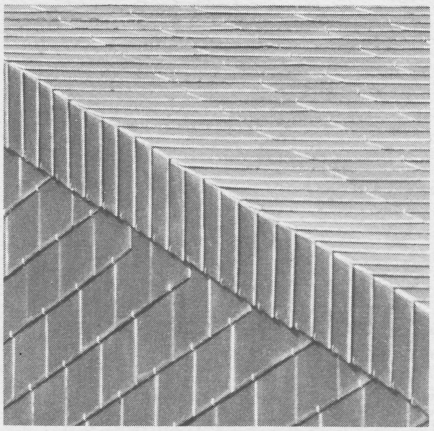
Planification.

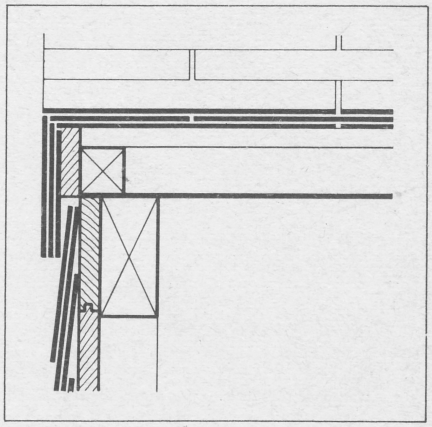


Eternit publicity.

Ortausbildung mit Ortgebinde

Das Anbringen eines Ortgebindes ist bei allen Dächern mit Doppeldeckung möglich. Das Schieferformat darf allerdings 40/40 nicht überschreiten. Die Dachneigung spielt keine Rolle.





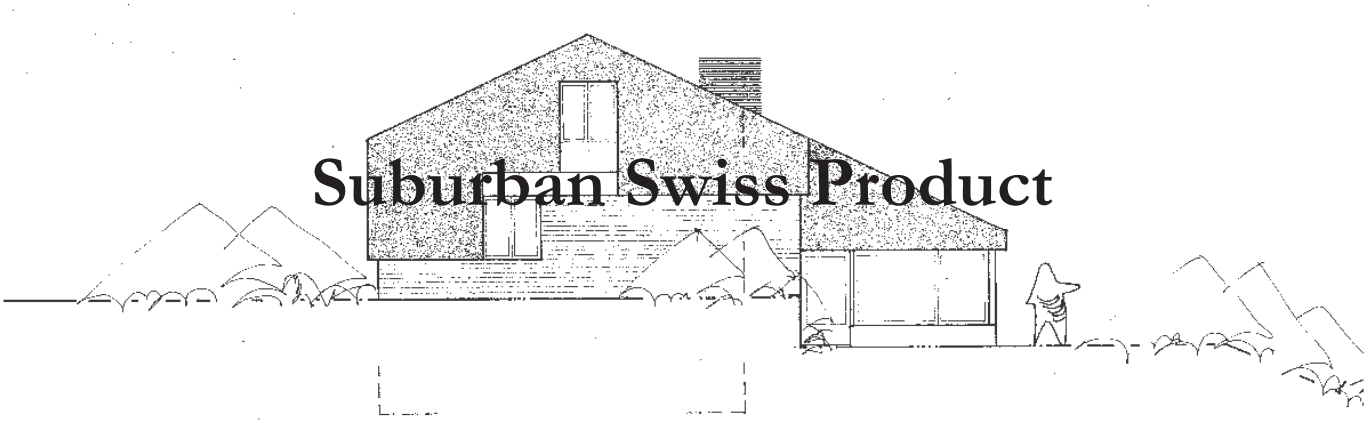
Construction detail, Eternit.

As one and a half storeys is better proportioned than two in a medium-sized detached house, and symmetry is frowned upon these days, people sometimes opt for a pitched roof or an asymmetrical gable roof. The same applies to the roof, which covers the body of the house like a cap and whose surfaces are also part of the exterior wall, and to the roof, whose empty framework extends outwards like a bar, are the expression of a pronounced plastic form.

Eternit, 1969.

Eternit Publicity.

Suburban Swiss Product



Brunnacher 24 Grossaffoltern, Bern.

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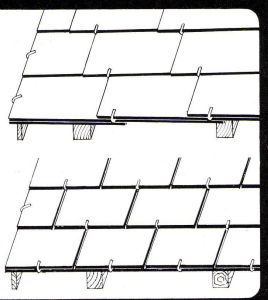

Je besser das Dach, umso behaglicher fühlt sich der Gast. Daher wurde die Hostellerie Rigi-Kaltbad mit schwarzen Asbestzement-Dachschiefern «ETERNIT» eingedeckt. (Arch.: Dr. J. Dahinden, Zürich)

Asbestzement-Schiefer «ETERNIT» beweisen immer wieder, dass sie auch härtesten Beanspruchungen standhalten. Man wählte sie für die Seilbahnstation Moléson (2002 m ü. M.) mit Windgeschwindigkeiten bis zu 220 km/h, für Ski- und Berghütten in über 3000 m Höhe, für ein Mehrfamilienhaus in La Brévine, der Ortschaft mit den eisigsten Temperaturen in der Schweiz.
Kein Wunder, daß sie sich mit solchen Referenzen auch als ideales Bedachungsmaterial im Mittelland erweisen.

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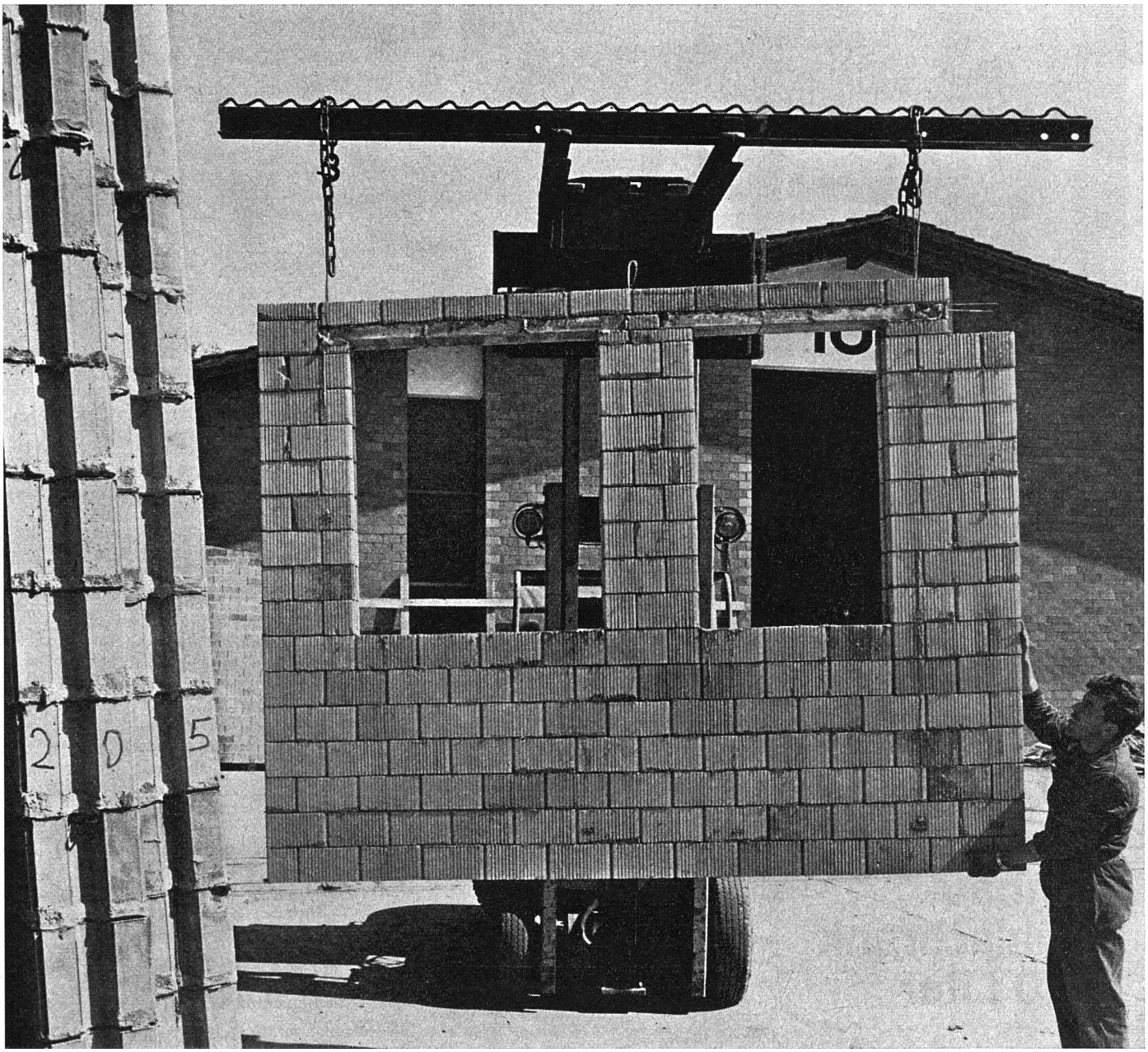
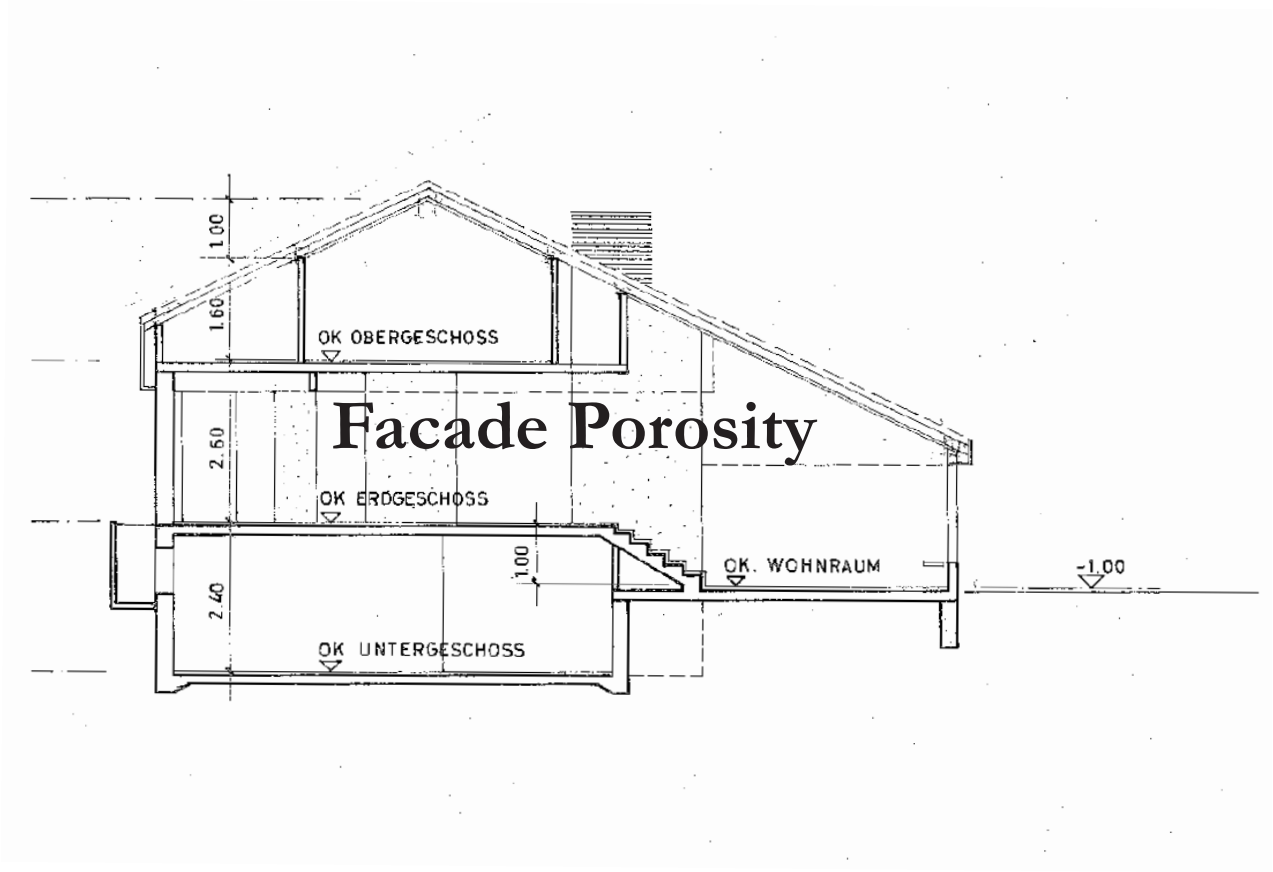
Eternit Publicity.

Babylonstrasse 24, Neuendorf

Climate Control



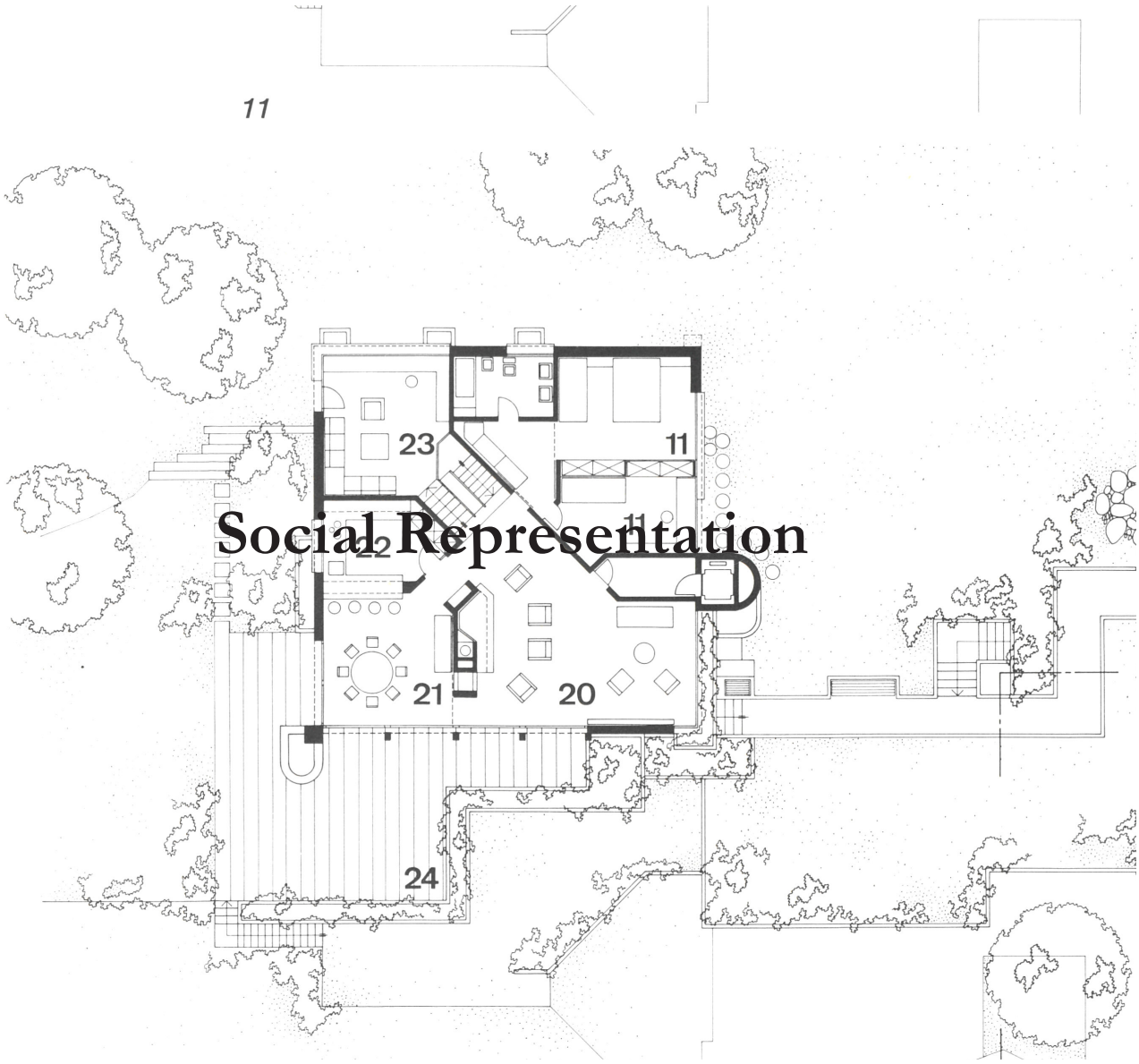
PreTon AG System.



Facade Porosity

Zwei Einfamilienhauser in Illnau, ZH, Rudolf Fuchs und Fritz Moos, Eternit 80, 1975.

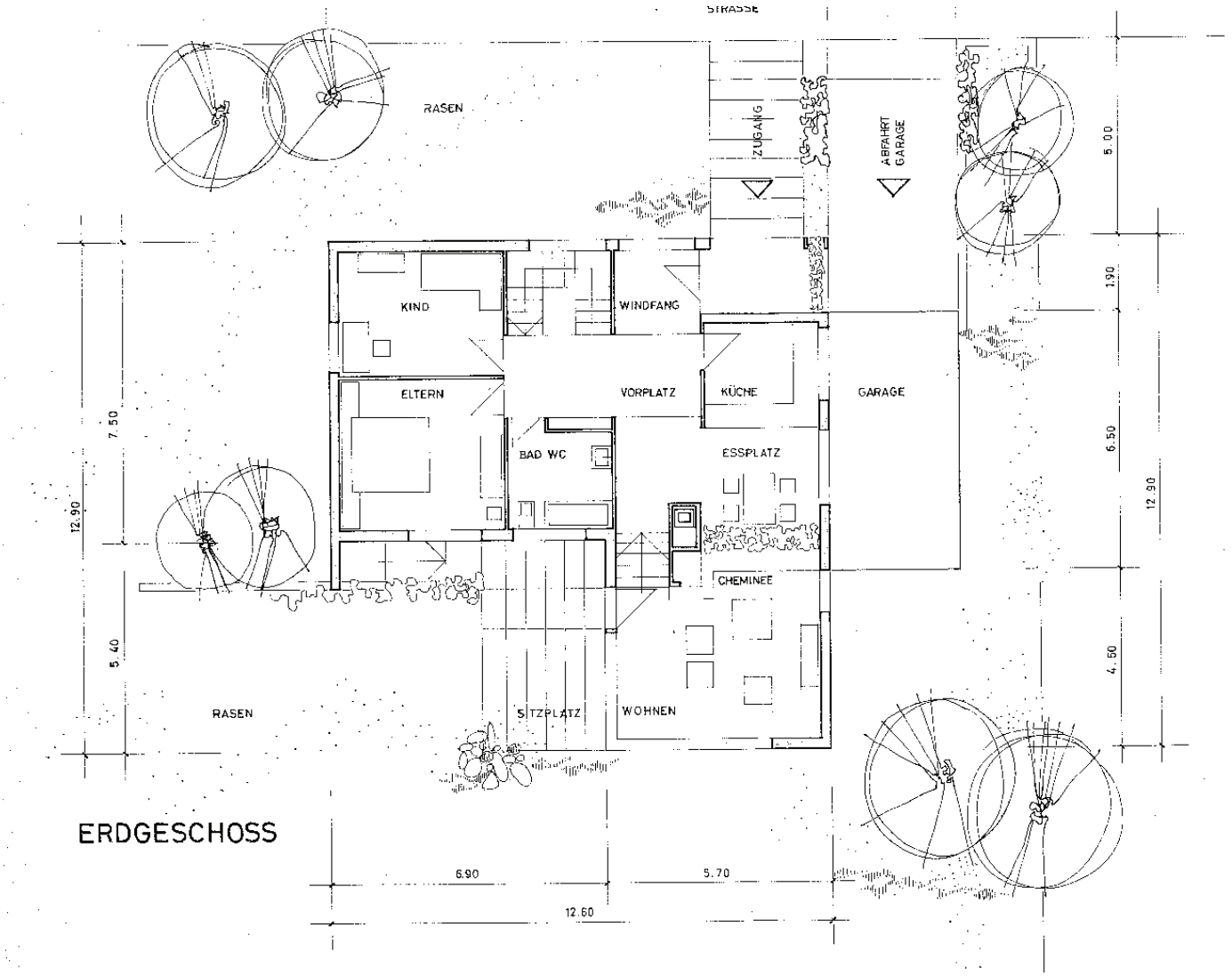
Social Representation



Zwei Einfamilienhauser in Illnau, ZH, Rudolf Fuchs und Fritz Moos, Eternit 80, 1975.

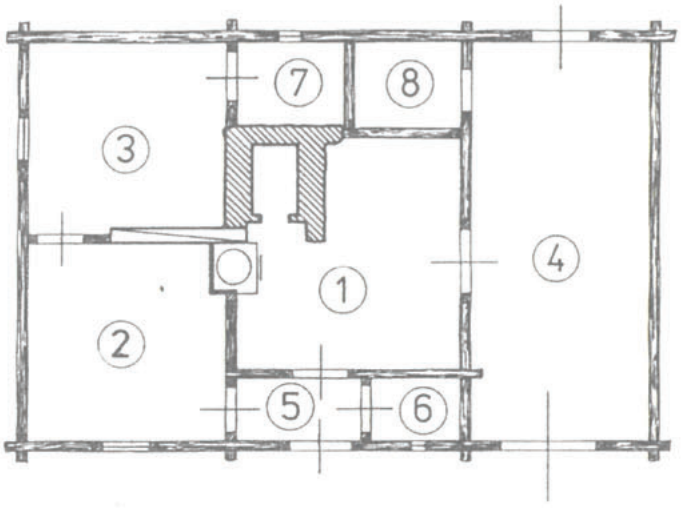
Zweifamilienhaus in Herrliberg, ZH, Rolf Limburg, Eternit 80, 1975.

Brunnacher 24 Grossaffoltern, Bern.



Brunnacher 24 Grossaffoltern, Bern.

Thermicity and spacial Movement

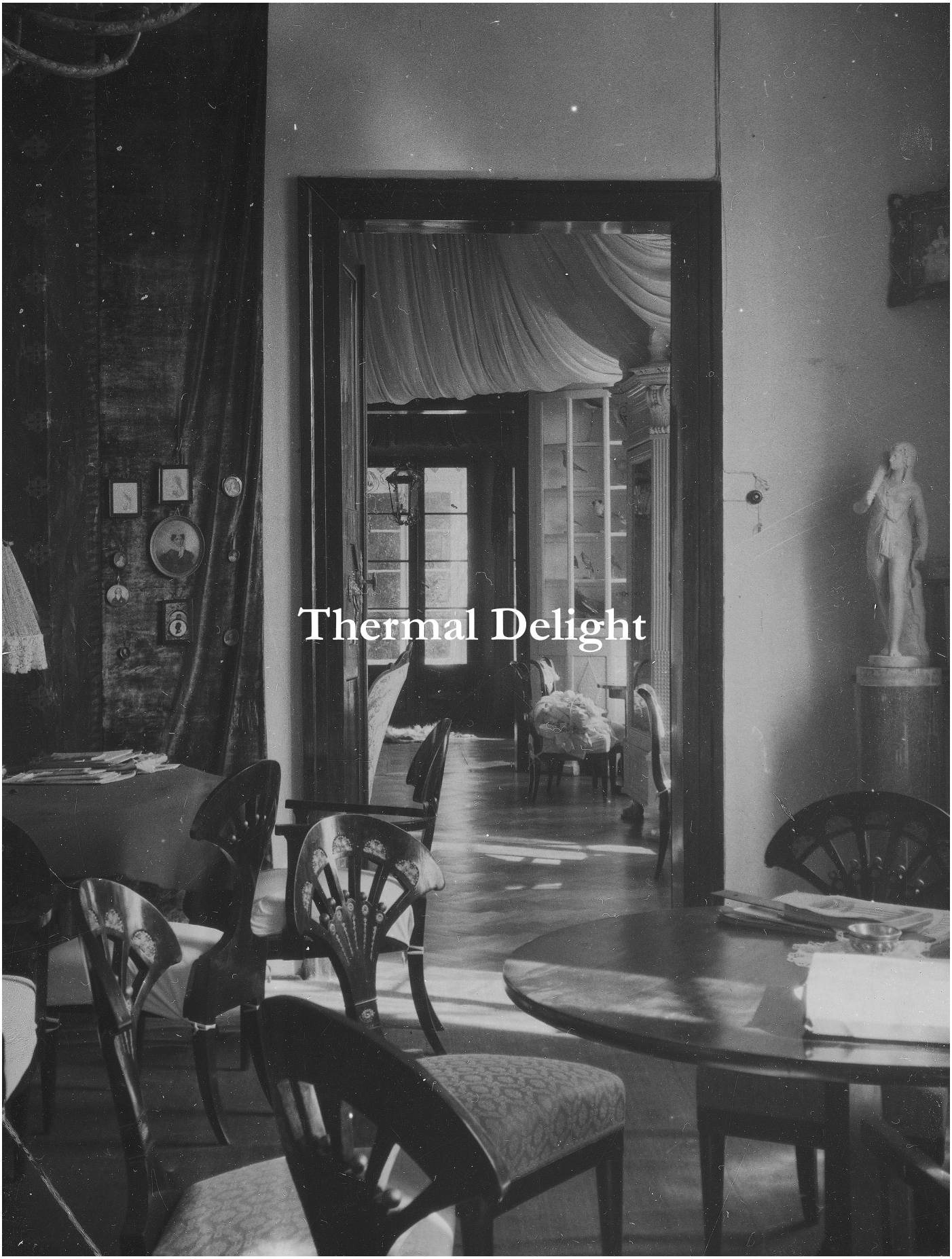


Lange, Estonia.

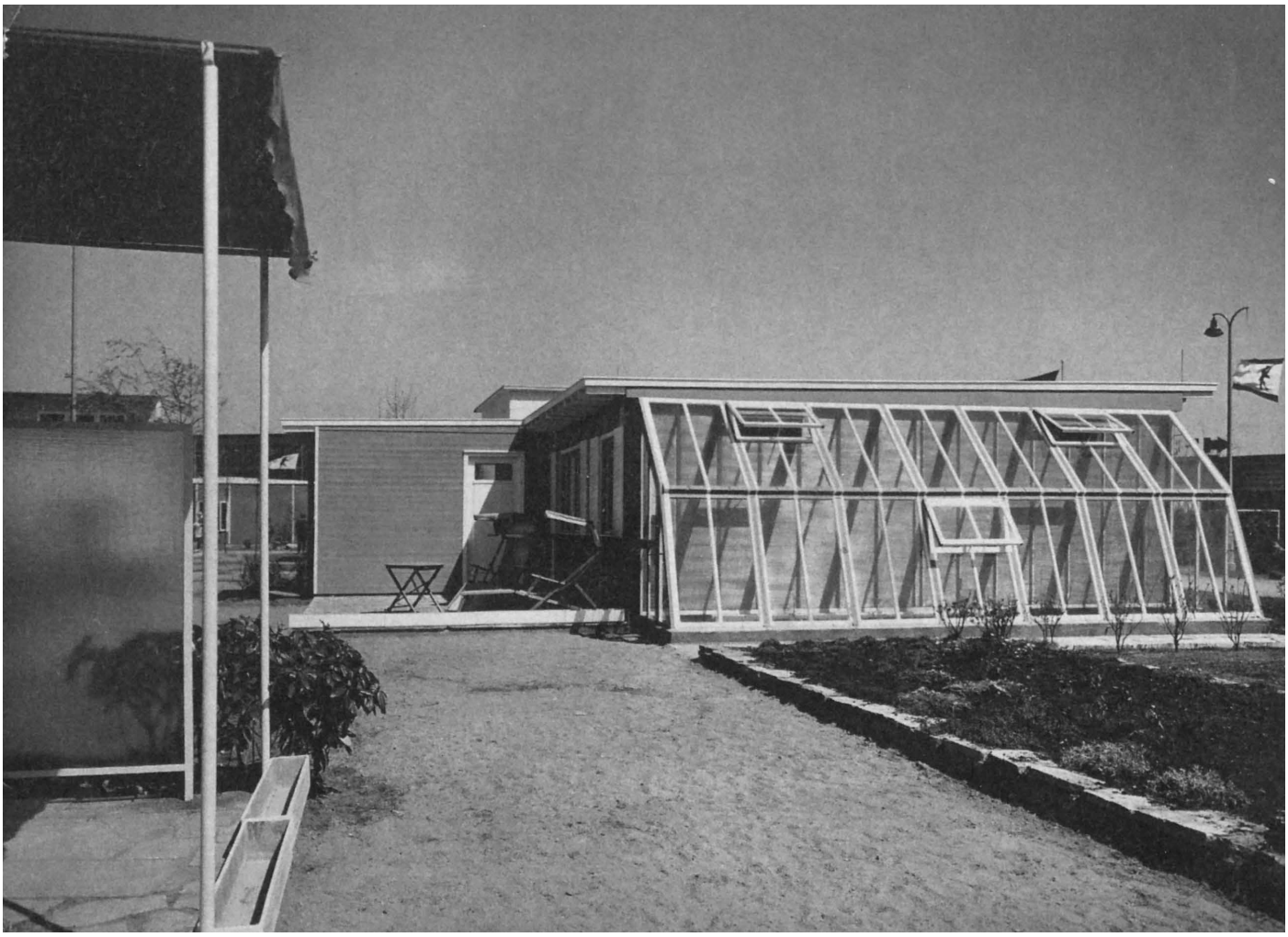
Spatial Temperature Gradient

Thesis exploration of keyworks

Podpinka, Zarzecze, Poland.

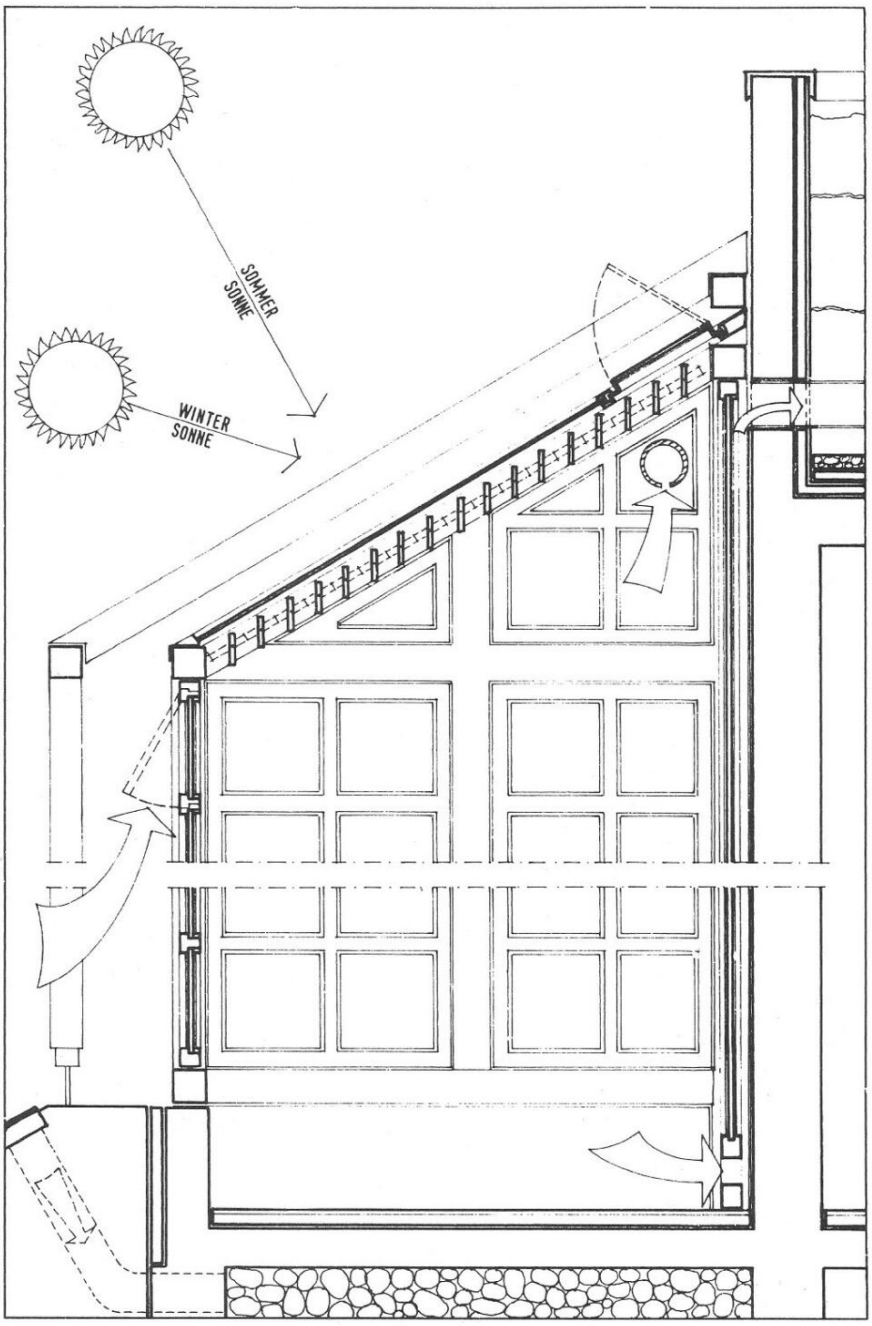


Dzieduszycki Palace, Zarzecze, Poland.



Growing House, Walter Gropius.

Microclimate



PASSIVES SOLARSYSTEM GEWÄCHSHAUS

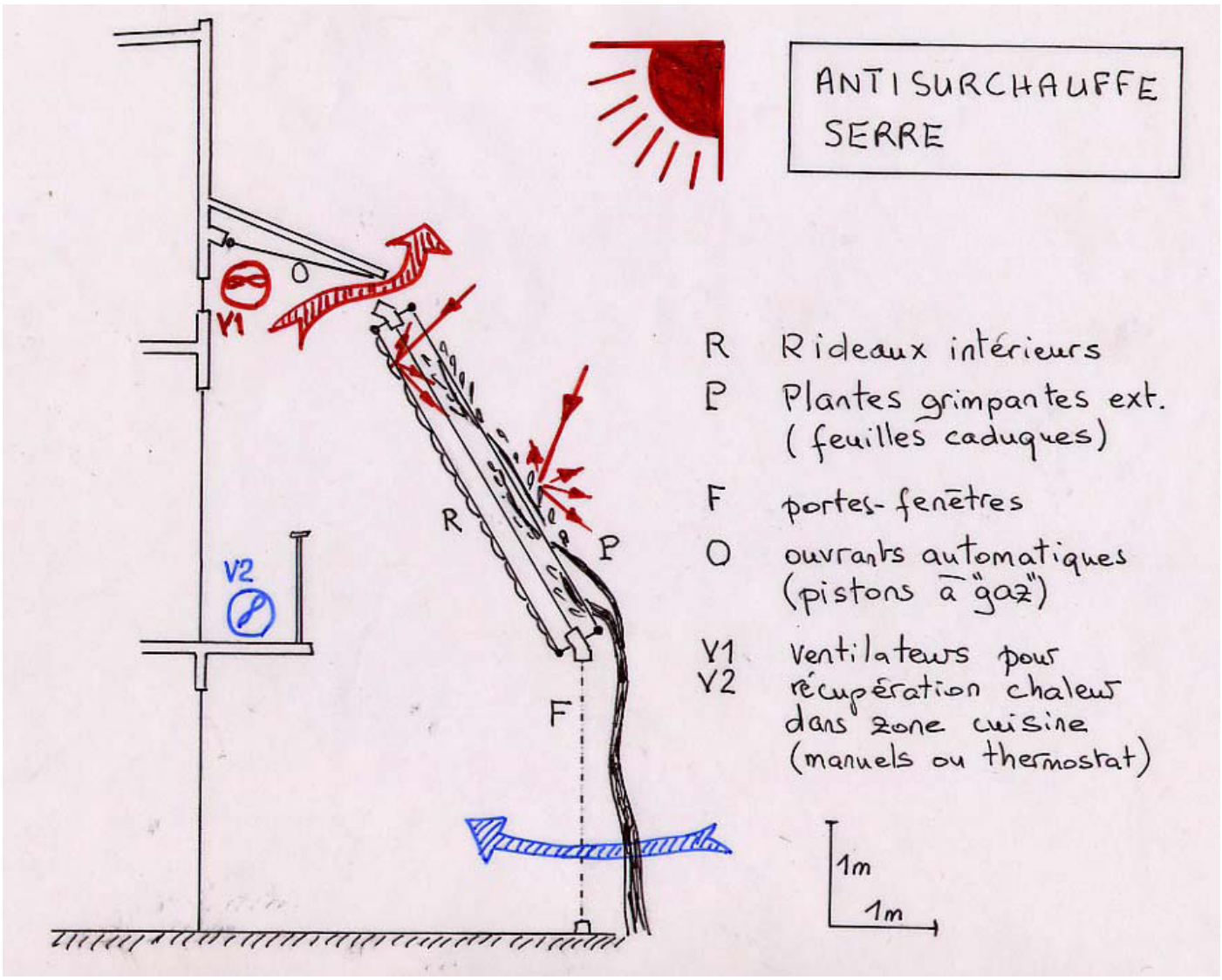
TREIBHAUSEFFEKT UND TROMBEWAND

- In gemäßigten Klimazonen ist die Verglasung außen liegender Pufferzonen sinnvoll, um sie energetisch zur Wärmefalle für die einfallende Sonnenstrahlung zu machen. Das kurzwellige Sonnenlicht durchdringt das Glas und wird vom Fußboden und angrenzenden Wänden absorbiert und in langwellige Wärmestrahlung verwandelt. Im Frühling und Herbst kommt der Wärmegewinn den dahinterliegenden Wohnräumen zugute, während im Sommer durch bewegliche Sonnenschutzelemente sowie durch Querlüftung eine Überhitzung vermieden wird.

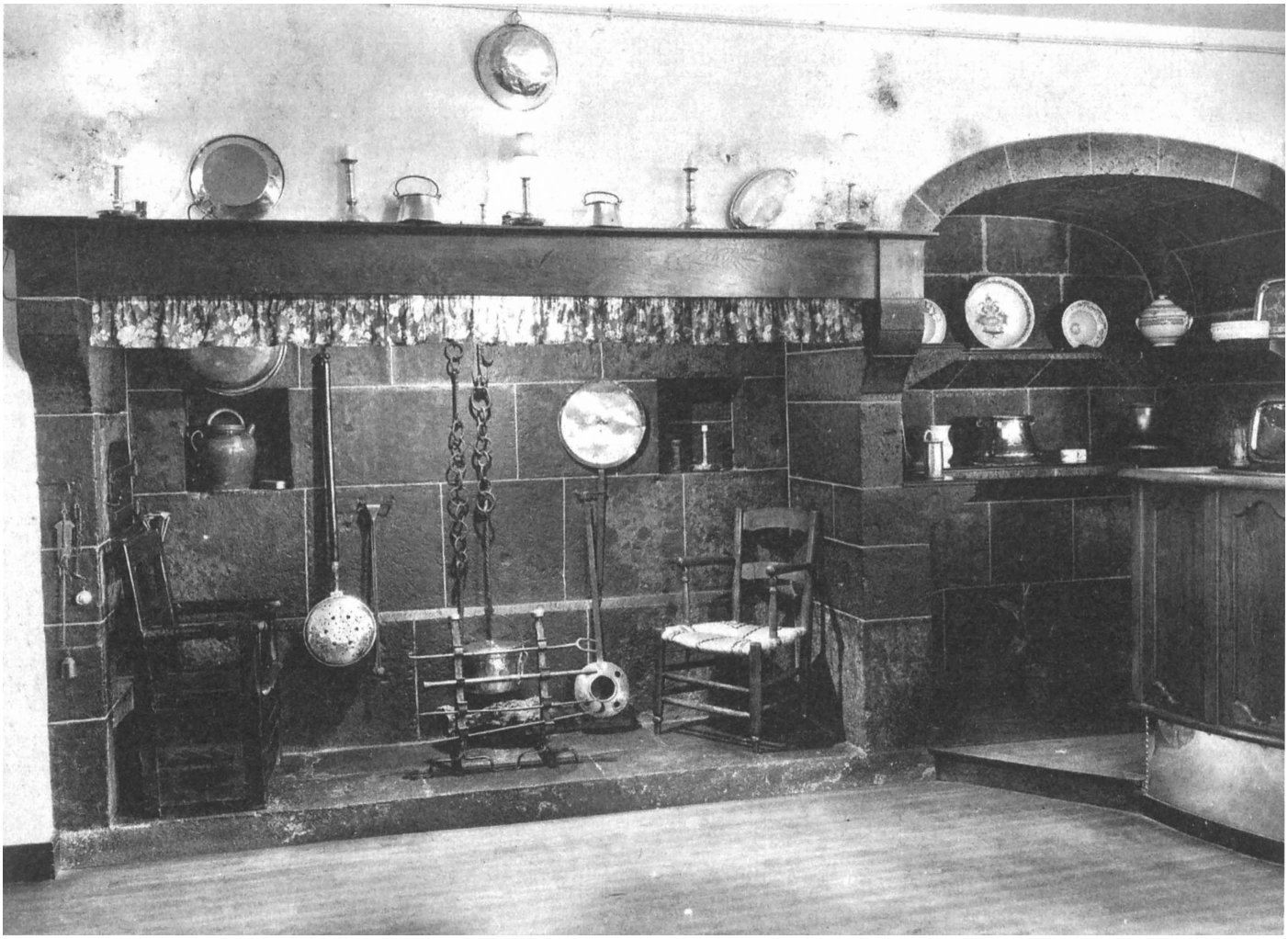
- Eine Speicherwand hat die Fähigkeit, Wärme aufzunehmen und diese zeitlich verschoben wieder abzugeben, d.h., massive Steinwände speichern tagsüber Wärme, sorgen so für relativ kühle Raumtemperaturen und geben sie in der Nacht wieder ab.

- Die Trombewand bedient sich beider physikalischer Wirkungsweisen. Vor einer dicken Steinspeicherwand ist eine Glasfassade angeordnet. Kalte Luft strömt unten zwischen Glas und Speicherwand, erwärmt sich, steigt auf und tritt an der Oberseite der Speicherwand in den Raum. Die Außenverglasung einer massiv-speichernden Außenwand vermeidet den Nachteil der Zusatz-Außendämmung in der Form, daß trotz Verbesserung der Wärmedämmung der solare Strahlungsgewinn nicht nur erhalten bleibt, sondern durch den Treibhauseffekt noch gesteigert wird. Bei hinreichender Speicherwirkung ergibt sich über das Jahresmittel eine positive Energiebilanz dieser verglasten Massivwand.

Solar house, Oswald Mathias Ungers.



Maison écologique, Françoise et Olivier Guisan, Vaud.



Fireplace as a room, Occitania, France.

Daily and Seasonal Nomadism

Fireplace as a room, Occitania, France.

Fat Wall and Breathing

index

People have a sense of warmth and coolness, a thermal sense like sight or smell, although it is not normally counted in the traditional list of our five senses. It is usually included with other aspects of the sense of touch. They are taken as one, probably because the thermal sense is located in our skin where our senses of touch and pressure also lie, or perhaps because we notice the temperature of something most accurately when we touch it directly, that is, when we conduct heat to or from it. But the thermal sense is definitely a separate sense, for we have specialized nerve endings whose only function is to tell us if some part of our body is getting cooler or warmer.

As with all our other senses, there seems to be a simple pleasure that comes with just using it, letting it provide us with bits of information about the world around, using it to explore and learn, or just to notice. The stone is cool; yes, it feels cool when I touch it; perhaps it has been in the shade for a while. The coffee cup is warm; it warms my hands. There is something very affirming of one's own life in being aware of these little pieces of information about the world outside us. When the sun is warm on my face and the breeze is cool, I know it is good to be alive.

Thermal Delight in Architecture, by Lisa Heschong, 1979

Keeping warm and keeping cool have been everyday activities for people since time immemorial. But they proceed at an almost unconscious level of culture, for these actions are so common and usually so well integrated with all the other aspects of the culture that people don't often notice their particular character as a response to thermal need. It is only the rare literary traveler who may remark how a peoples' customs are suited to the local climate—a subject for travel essays only slightly more sophisticated than remarking on the weather itself. And yet from the minute scale of gesture and posture to the grand scale of ritual and festivals, social customs often involve a thermal aspect. The image of a Southern lady nervously fanning herself is that of a coquette using the fan as a prop for flirting, rather than a woman merely trying to cool herself. Europeans have the custom of using furniture, chairs and beds, to raise themselves conveniently above the cold air that accumulates at floor level. Hindus, on the other hand, use no such furniture but sit directly on the floor where they benefit from the extra coolness held in the ground. Christmas is known as a religious festival. Yet the notion of celebrating Christmas in the southern hemisphere at the height of midsummer heat is slightly unsettling to people in the northern hemisphere. In spite of its religious basis, Christmas has strong connotations of being a warm, cozy time set in contrast to midwinter cold. Similarly every culture has its set of rituals, customs, and special activities associated with each season.

The inglenook and the gazebo may seem more like settings for a children's story than examples of thermal environments relevant to today's needs. Yet the very affection with which they are remembered, revealed in the bits of romance or nostalgia attached to them, suggests that there is something of value to be learned from them. The words we use to describe such places—snug and cozy or airy and refreshing—all imply that these places offer us a sense of thermal well-being. And it is partly this association of the experience of well-being with a particular place that leads us to think of it fondly. As with the toddler's blanket or the old sun hat, we can develop an emotional attachment to the places that have been responsible for pleasant moments in our lives.

Places with desirable thermal qualities naturally tend to become social spaces as people gather to take advantage of the comfort found there. Examples of places with important thermal qualities that are also social spaces abound in every culture. In Saudi Arabia, mosques are designed with a special basement prayer hall that stays cool during the hottest Arabian days. In addition to being used for prayers, it is also a favorite place for the men to stay and socialize or take their afternoon nap. For the women of southern Italy the baker's shop is the place to gather for gossip in the winter, for the ovens make it the warmest place in town. In nineteenth-century America each farmstead or town was likely to have an ice house to store the ice harvested from a pond in winter for use during the summer. The ice house was a much favored, though often illicit, place for children to play during hot weather.

Thermal Delight in Architecture, by Lisa Heschong, 1979

SPATIAL COMPRESSION
Can regulation of temperature determine the height of a room?

Throughout history, living spaces have responded actively, dynamically to seasonal temperature changes. In certain parts of Europe, for example, they hung draped textiles from the ceiling in order to reduce the volume of the room and thus make it easier and faster to heat; come summer, they would raise these drapes and return the room to its original size. Vertical space dividers served the same purpose.

The room volume in contemporary buildings is usually invariable and absolute, and as a result does not respond to the seasons. With various interventions, however, it could adapt to different temperature conditions through the year, thus activating the living environment as a relative, changing, and experientially diverse space that is responsive rather than static.

COCOON
Can human body heat
shape construction standards?

Heat sources were a precious commodity in the past, so any, however unlikely sources at hand were used in the most ingenious ways. Body heat was utilized to warm small sleeping chambers that were closed off with a wooden or fabric screen. Arranged as alcoves integrated in the wall or positioned in the room as small independent units the chambers, owing to their small volume, trapped body heat inside.

In contemporary living environments it's the norms and standards applied in the process of designing architecture that dictate the size of the rooms, which as a result are more often than not generic. The human body is an excellent source of heat and can be used to warm up small sleeping chambers. Architecture that harnessed this potential would result in radically different, non-standard spaces with a hybrid heating system.

ROOM WITHIN A ROOM
Can limited energy sources redefine spatial organization?

In the past, the concept of a small, heated room within a larger space made heating much more economical. The warmest, inner room with a heating element was used for social activities and served as the central space of the house. The temperature gradient gradually decreased towards colder regions of the house through indirectly heated bedrooms and service spaces all the way to unheated pantries and barns. An extreme example of such an arrangement is a herdsman's hut that features a small living cell with a fireplace at the center of the room, which was surrounded with a shed for the cattle. The animals served as a living heat source and as thermal insulation that kept the living cell in the center warm.

Today we tend to heat every room, irrespective of its purpose, to the same or similar temperature. By setting up smaller rooms within bigger ones we can create an architectural design in which the placement and dimensions of a room generate differently tempered spaces suited for different activities. Heat-based differentiation of spaces goes beyond modernist tenets and creates conditions for dynamic living practices that respond to the seasons.

HOT SPOT

Can heating generate new social activities?

Until recently, people used a fireplace or stove to heat their living spaces. As a rule, these multifunctional heating elements also served to dry crops and clothes, and to cook food. They were places where people rested during the day and where they slept at night, when the heating device had cooled but still radiated pleasant warmth. These heat-generating devices were therefore also generators of social activity and daily rituals in the house.

A heating system could be much more than just a technological solution – it could serve as the central spatial element that fosters new social interactions and spatial relationships that present-day standard, monofunctional solutions no longer tend to support.

INTERMEDIATE ZONE
Can the façade work as a space that reacts to the seasons?

The extended façade used to be a utility space that functioned as a special climate zone of the house, regulating the temperature in the interior. The space was used for other purposes as well, and could serve as a place to dry crops, as a barn or pantry, and similar.

As a rule, the façade today serves as a linear barrier that protects the interior space against external factors. But this fixed barrier that separates the outside from the inside could be extended to include the intermediate zone, which functions as a temperature regulator, warming the interior space in winter and cooling it down in summer. At the same time, the façade would become an additional seasonal room that would allow for different programs according to season.

SEASONAL LIVING
Can adapting to seasonal temperatures promote the nomadic use of spaces?

Up until the early 20th century, when technologically advanced central heating systems became commonplace and allowed people to heat all their living spaces to the same temperature, most houses used an autonomous heat source that heated only the living areas. Rooms were used according to the seasons. Some houses consisted of a string of consecutive volumes, others placed the heat source in the center of the house, while the rooms arranged around it would get colder as they moved towards the outer perimeter of the house. During the warm season people would use the entire building, and when it got cold they moved to the smaller, heated unit.

Contemporary homes could be divided into several separate units to be used on a seasonal basis. Their program and use would adapt to different temperatures through the year. Such a nomadic arrangement would generate typological solutions that would respond to changing climatic and temperature conditions.

GREEN SHIELD
Can greenery be used to regulate living comfort?

Before the arrival of contemporary air conditioning systems that ensure comfortable indoor temperatures in our homes greenery served just such a purpose, appearing alongside people's homes in different shapes and forms and assuming different ecological functions. A tree appeared as a volume that protected a structure against solar radiation, a high hedge as a green wall by the house that served as a windbreak, and creepers as an additional façade layer that prevented the interior from overheating in the summer; and come winter, when the leaves had fallen, served to passively heat the house.

Today's air-conditioning systems require closed spaces that strictly separate a building's interior from its surroundings. Green areas and volumes could be understood as integral architectural elements, an additional layer that creates an intermediate bioclimatic space between buildings and their surroundings, which provides for more comfortable temperatures and better overall living conditions.

SEASONAL DRESSING

Can a building envelope serve as a dress that adapts to temperature changes and various uses?

Before the invention of thermal insulation solutions that comprise the multi-layered building envelopes of today, people would clad the exterior walls of their homes with various dried organic materials that they found in the vicinity. In the winter, when the roof was covered with snow, these additional materials served as thermal insulation. A similar principle was employed in some villages where people used parts of their houses to dry their crops in the summer, which served to shade and protect against overheating.

Walls could be designed in several layers that would differ in their materiality and tectonics and would adapt to different temperatures, like clothes, thus constantly changing the building and its relationship with its surroundings. For its part, the façade could be composed of several movable layers that would allow it to respond to the conditions around it.

TEMPERATURE ZONING
Can temperature zoning replace functionalist zoning?

Before the functionalist spatial organization that was based on foreseen use, vernacular zone-planning of the interior was based on the room temperatures required to accommodate specific uses. From the outset, the floor plan together with the structural and material design of a house were based on desired room temperatures. The use assigned to a space was fixed and did not change.

The design of rooms and their materialization could evolve through the articulation of the relationship between specific activities and related temperature requirements. A home would thus feature a system of rooms with specific temperatures and associated activities.

FAT WALL
Can wall thickness influence
architectural typology?

Before the development of modern building technologies and techniques stone and brick walls featured large structural sections. Fat walls accumulated heat and maintained a relatively comfortable interior temperature, despite any unfavorable conditions outside: in the winter they kept the house warmer, and in the summer kept it cooler than outside.

The need for fat monolithic walls disappeared with the development of structural systems. Today, their potential (other than insulation) could be harnessed by integrating various elements – furniture and deep openings as well as service and even living spaces.

BELOW THE SURFACE

Can reconfiguring the terrain create a climatically favorable home?

Vernacular builders used various strategies to reconfigure the terrain or adapt to it, depending on its natural features. They dug their houses into the ground either partially or completely, backfilled them, and even lived in cave dwellings, always with the same end in mind – to ensure a consistently comfortable indoor temperature.

Architecture could become a topographic operation, and the object so produced would not be autonomous but integrated into the landscape. Utilizing the specifics of the landscape and reconfiguration of the terrain could evolve into a contemporary approach, introducing a type of dwelling that enjoyed favorable climatic conditions without complicated temperature control systems.

WASTE HEAT MATTERS

Can utilizing waste energy generated as a by-product become a question for architecture?

Throughout history, people used anything at hand to regulate temperature. Historically speaking, animals were not an "industrial" food source separate and distinct from humans. Human cohabitation with animals served more than simply to satisfy the need for food – in certain cases it became an energy concept, and our ancestors learned to utilize the body heat radiated by animals. The barn was connected to the home under or next to the living area of the house, which thus received an additional heat source and insulation.

Human homes today no longer support cohabitation with animals (other than pets). Their former role as heating bodies has been entirely replaced by contemporary technology. Our homes are packed with technical devices that (like animals before them) generate heat as a by-product. Heat, cold, water and other by-products generated by modern technology could be utilized in the design of contemporary dwellings.

SENSITIVE ORIENTATION
Can changed conditions redefine dogmatic design conventions?

Vernacular houses conformed to the characteristics of their location – topography, solar radiation, wind direction and similar in order to optimize and economize on both the construction and home life. This justified the substantial time and materials invested in homes that would be and were used for several generations.

In line with our contemporary ecological reality – different and changing climatic conditions and related weather phenomena – we should re-examine established design and construction conventions and guidelines. Every project should be conceived without the generalizations typical of modernism and instead be based on the present-day climatic context, and all aspects of architecture rethought with regard to the specifics of the micro-location.