

Jacques Herzog

La géométrie cachée de la nature

1988

Out of our préoccupation with architecture, and plans, models, sketches and text fragments arise. These text fragments can be put together into a text progression.

A part of these texts is entitled « the Hidden Geometry of nature ». The title is the expression of an approach, a search for perception and meaning, a search of something hidden, something that is intégral to nature, that occurs in nature. A search that must fail at the moment I believe I have found my geometry.

1 Tradition and the image of tradition

I am an architect. Before I became an architect I went to school for so many years that I learned, and probably changed my own nature in doing so, to do everything with my head. From the head, thoughts go down to the hands, which draw the plans for craftsmen and workers. I had seen the drawn craft détail somewhere before. Maybe I saw it in a firm or in an illustration. When I showed the détail, or my drawing of it, to the worker, I noticed that the real world had changed so much since my observation of it, that the worker no longer understood the détail. Building technology offered him another, probably better, détail and accepte dit because he believed that such things must change because they are subject to development which must be identified with progress. Never and never handles for doors, Windows and faucets ; never and never forms for tiles and bricks, for sinks and bathtubs ; never and never color schèmes for each and every building product.

The construction industry has thus changed craftsmanship and has suppressed the craft tradition the world over. Actually, traditions in the uncompromising and compréhensive sensé of the world no longer exist. At most there are still a few customs, useful for planning the annual calendar.

But back to the worker ; I can no longer build upon this tradition since he no longer exists. He had been replaced by the developers of construction industry who can certainly give me a few suggestions – usually warnings against some technical folly I was about to commit. But their brains are no longer interested in this process. Thus I must try to understand what it is that industry offers me. My images of the build world must be confronted with the reality of the construction industry's products, I have to analyze the products which are available to me – the images in my head and the industrial products. I have to heat up, melt and take apart both, and then cool them down again in my own sweat bath.

The architectural product has for a long time been the product of no craftsman. But already it is no longer a purely industrial one either. The coincidence and correspondence of industrial aesthetic and architectural aesthetic was lost with the fading away of the modern movement. A modern tradition is just as impossible to live out a tradition of craft periods. Never in the history of architecture has there been such a crass loss of orientation for architects as now. Never, too, was there so much terrible architecture as there is today.

But never before were there so many possibilities, so many directions in which to move without worrying about questions of style. As a matter of fact, never before was architecture so close to art and again so distanced from it. Architecture is perception, architecture is research without the demand for progress.

In these considérations, the concept of tradition is of central importance. In earlier cultures tradition was a kind of ethical pattern, a matrix for the identity of things, relationships and self-understanding. Tradition is a utopia. The utopia of a unified culture and the yearning for the intégration of life within a collective functioning at a highly complex level. Tradition is a compréhensive category of being and cannot therefore be split apart. I want to repeat that our architecture stands in no real tradition with earlier architecture. It does, however, allude to it through observations, critical perceptions, copies of it or denials of it. It is almost as if an earlier mediatory génération had been wiped out but an environmental catastrophe. At this juncture our contemporary culture, often designated as Post-Modern, comes in. Only this culture carries on earlier forms of behavior and building more in their appearance than in their original compréhensive form. The relationship to pre-existing architectural and building for mis unavoidable and important. Architecture has never arien out of nothing. But there is no longer a mediatory tradition. This can also be seen in the way that contemporary architecture so often tries to fabricate a Relationship to historical forms by means of quotation and with this practice pénérâtes no further than the surface of the eye's retina.

What else can we do but carry within us all these images of the city, or preexisting architecture and building forms and building materials, the smell of asphalt and car exhaust and rain, and to use our pre-existing reality as a starting point and to build our architecture in pictorial analogies ? The utilization of these pictorial analogies, their dissection and recomposition into an architectural

reality is a central theme in our work.

Taking the Plywood House of 1985 as an example demonstrates various relationships to other buildings with which we are all somehow familiar. In some parts of Basel you encounter wooden barrack-like building for kindergartens or for sports. The closer one looks at these diverse buildings, the more the differences, even the oppositions, between them and our Plywood House become visible. The kindergartens and the wooden sports buildings are more logical in their detail work and essentially determined by the finishing technique with a kind of linear, functional logic. Already here, no real tradition in the sense that I discussed before as an interpenetration of craftsmanship, building form and use – is present. But an « ordinariness » in the details and building form that is no longer possible today is still recognizable. Such buildings, when constructed today, are makeshift and clumsy or their ordinariness and inconspicuousness are treated as a joke and become merely picturesque. If we take a closer look at the traditional old house, oppositions become ever clearer. The severed tradition operates as the distant utopia of a complete and integrated culture.

The floor plan seems simple and clear ; a division following a standardized geometric pattern. If I look at it a while longer, I no longer perceive this division or subdivision, but rather as a whole assembled out of autonomous parts. I see it as if the house in its inherited form did not arise out division, that is, from the splitting off of one function form another, but out of the opposite process of assemblage to create a social, functional, spatial and constructional whole, literally a unified architecture.

If the plan form and the cross-section are expressed as geometric equivalents, the spatial integration of all building parts is strengthened. The building is simultaneously an architectural expression of each single building part as well as of their unified collective form. This specific Relationship between the parts and the whole is what we try to find in most of our projects, as for example in our Stone House in Tavole, Italy.

2 The presentation

Thinking about the presentation of an architecture is identical to thinking about the architecture itself. To say it another way, each architect's presentation communicates insight into architecture not so much through the images presented of this architecture, but through the presentation itself ; hence, our problematic Relationship to conventional architectural models and to perspective drawing. Unwillingly, we bow to the competition rules which require the well-known white site models. Although they are supposed to be « neutral », they, in fact, reduce architecture to

volume and geometry. Thus they appear to comply with a view expressed by Le Corbusier who wrote in « vers une architecture » : « Architecture is a scientific, correct and wonderful game of volumes assembled Under light » What, however, if architecture is not a game at all, especially not a scientific and correct one and if the light is often clouded over, diffuse, not so radiant as it is in the ideal southern landscape ? Sometimes architects are also required to present a perspective drawing in as naturalistic a style as possible. Such architectural pictures, always equipped with details from the latest contemporary design repertoire, are even more impossible than the neutral white models. Yet these two presentation techniques are internally related : while the one technique suggests knowledge through the omission of information, the other naturalistic technique achieves the same and through an overundance of information. The more naturalistic such a perspective drawing is, the more deceptive is its intention. A pictorial space comes into being which is more and more often perceived as real. Nonetheless, only a mood is captured, the single illusion of a not-yet-existing reality. The tradition filmmaker uses this means to begin the action. But in the cases of an architectural image, aside from the emotional field of action of the architect himself, this action is wholly lacking. Architecture, that is, the reality of architecture, cannot be represented through a perspective, naturalistic and illusionistic, manually or computer-aided produced drawing. Once fixed, the image of such an architecture will turn against its creator. It will wear out and become as ludicrous as the love letters once intended for an ex-girlfriend. The image will become confining because it fears the reality of the architecture arising from it. The perspective drawing will become confining because it does not allow its observer any new mode of seeing other than that which its author intended or any new perspective, naturalistic mode of presentation for architecture is therefore authoritarian and anti-enlightening. To the same degree, the architecture presented in this manner will tend to reflect such a position. The precision of an architectural presentation cannot be found in an intensification of the naturalistic outward appearance of the architecture. Rather, it is realized in a mode of representation which calls up other images of this architectural expression, both visible and invisible. This is a presentation which develops from the structure of architecture itself and changes from project to project just as the architecture itself and changes from project to project just as the architecture itself changes from site to site.

3 The reality

The reality of architecture is not built architecture.

An architecture creates its own reality outside of the state of built or unbuilt and is comparable to autonomous reality of a painting or a sculpture. The reality of which I speak is also not the real building, the tactile, the material. Certainly we love this tangibility, but only in a Relationship within the whole of the (architectural) work. We love its spiritual quality, its immaterial value.

The artwork is the highest ontological state of material once it is taken out of its natural context. All other ontological states of material describe a gradual dévaluation ending in the total rape in which manking participates through his production of the utilitarian objects of daily life and the typical architecture of today. These thoughts on the spiritual quality of the material world, like those on tradition and presentation, are to be seen in one context. This context tends to let reality be left and intellectually confronted because we feel this to be a political necessity.

As a matter of fact, the architectural plan and the architectural work interest us as Tools for the perception of reality and confrontation with it. Here too, we would view the moral and political content of our own work from a more questioning stance. Not only as a stance during the drafting process, but also as the self-reflecting quality that we try to bring into the finished buildings themselves.

With the word « moral », I am not referring to an objective or affirmative moral concept, or even to a moral precept. The morality of which I speak is not the morality of good form and pure stylistic means that was demanded by the famous architects of the International Style for a new modern man. We are not against the arbitrariness of its use. We are against arbitrariness because it always serves to dismantle resistance to simple consumerism, to the dizzying speed with which this consumer behavior has to be maintained by new picture material. Our moral-political resistance to this arbitrariness is also related to a fear of being pulled into the current ourselves, a fear of what we could call the time grid of the media, a fear of being ourselves degraded into guises.

One work which we feel may express the questioning of both self and site, is the Ricola warehouse we built in a former quarry in Laufen. The brief was the encasement of a warehouse in steel construction with fully automatic stocking installations. Since the outer mass of building had already been determined by the inside installations and the steel construction, the building's proportions, which through their huge dimensions would completely change the scale of the site, had to be created by the structure of the building's sheath. This structure has been realized as a kind of giant « pile of board » in which the vertical and the horizontal carrying elements, wooden beams,

wood cement panels and wooden platforms « shelve » the elements of the façade in an analogy to the inner warehouse structure of building. The idea of stocking shelves is not applied to the building, but is embodied by the building itself. The varying dimensions of horizontal layers emphasize this concept. The building acquires an almost « breathing » effect in which - visible in the roof frieze - the inner steel construction enclosed in sheet-metal is unmasked. In contact with the floor, the idea of a stacked pile is again strengthened by the placement of concrete consoles directly on top of the approximately six-foot-high stone foundation that remains visible along the north façade. The viewer's perception of the stone is heightened by its contrast to the delicate wood cement construction and its meaning as a constituent topographical and historical element on the site becomes clearer; The limestone, once quarried here, now for the first time becomes a part of this factory area.

Here, in the context of warehouse, I would like to present our housing project in Vienna-Aspern. The site is a flat parcel in the eastern part of the city. This flat open space was our point of departure from our first sketches onwards, and found concrete architectural expression in the final site plan for the project. From the very beginning of this project we worked together with Adolf Krischanitz from Vienna and Otto Steidle from Munich to develop a common idea for the site; The row houses are being developed individually by each architect.

The settlement consists of long, slightly curved rows of one-family houses; The rows are curved like a railroad train where the curve allows the length of the train to be seen. A curve which also serves as a means of orientation. It also describes a center of the settlement without being hierarchical, too-strongly pronounced center. It is not a center with a market function or some similar sociological invention. One feels this curve as a sort of shelter with the centrality I mentioned in the total form, and simultaneously something flowing, something open, related to the flat landscape remains. The details of each house are closely related to these ideals of a curve and of orientation. The houses display vertical strips of rough or fine plaster. The windows are placed either outside or inside of the masonry. They are placed either within this plaster or they reach out beyond it. This means that through their details, the subject of the convex or the concave side of each house row is brought to the fore. Other details of the houses are to be understood as part of a code for these concave and convex sides, for the building as a whole. This code is also found in the site plan and through this mutual dependency displays a strong Relationship to the warehouse in the stone quarry I mentioned before.

The hidden geometry of nature

Most of the objects we use in everyday life have for us a clear identity, which is defined only by their utilitarian value. We do not pose any further questions to such an object, e.g., where it comes from, how and from what material it is produced. Because it is helpful, we accept it without getting to know it better. Even if I wanted to and had had a technical education, I could not understand objects used daily the TV, the refrigerator, the personal computer. All these objects seem to me to be a kind of synthetic conglomeration in which the resulting products are barely still recognizable. They are in a way so mixed up with other materials that decomposition back into the original for me is no longer possible. Here, the original form would not even be the natural one. Rather, it would first decompose back into industrially finished products : cables, glass panels, steel plates and cooling liquids. The culture in which we live today, especially the western one, is a culture of blending and mixing substances until they are unrecognizable. These substances are a part of that matter which, according to a basic law of physics, is never lost. However, in innumerable products of our industrial age, these substances, this matter, can only reenter a natural cycle with great difficulty. This means that after they are scrapped, they harden into a useless degenerated state and they become poisonous, life-threatening substances. In this context, substances such as lead, mercury and chlorine are connected in our minds to negative values ; Their harmless ordinary guise as batteries for toys or as a refrigerator has vanished. Their heyday is over, their identity, which we believed we could exhaust in their utilitarian value, is scrapped. My discomfort and my questioning astonishment in the face of our daily production are thus not unfounded. I could not dissolve these aesthetic clumps, these conglomerates, in my own head. I could not dismantle them any more than the junkyards and depôts of our culture can. Thus there seems to be a connection between aesthetic critical perception resulting in physical discomfort and the real measurable destruction of the natural world. But what does all this have to do with architecture ? Where does this mode of being lead to when applied to architecture ? I come, with all my discomfort, from the field of architecture. Architecture whose limits I try to extend ; architecture which I use as a thinking model for a critical perception of our whole culture. Our interest in the invisible world is in finding a form for it in the visible world. That is, in breaking through the deceptive, visible and familiar guise to take it apart, to atomize it, before relating to it

anew. The invisible world is not a mystic one, but it is also not a world of natural sciences, of invisible atomic crystalline structures.

With this use I mean the complexity of a system of Relationship which exists in nature, in an un-researchable perfection exists, and those analogies in the realm of art and society interests us. Our interest is thus the hidden geometry of nature, a spiritual principle and not primarily the outer appearance of nature.

More interesting than a more far-reaching theoretical explanation of these ideas or a position finding against the important philosophers and artists who have done research in related areas, such as Goethe and Novalis, and Rudolf Steiner and Taut and Joseph Beuys, seems to me that I try to portray some of our Works in this light as with the warehouse or the settlement in Vienna in which the code, that is the feedback of the most possible and complex forms of the project in the clearest and most comprehensible principles interested us. In a new apartment project (redevelopment of the Gaba Block, Basel) we use _ Standing side by side – two fundamentally different types of houses. One building has the structure of a conglomerate, like a piece of Nagelfluh stone. The unity of the house arises out of a blending of various integral and identifiable architectural parts. These tower-like parts, composed of various materials and of various dimensions and forms, are the most specific spatial expression of varying functions possible ; for example kitchens, bedrooms or stairs. This type of house is, in our opinion, related to the Stone House, to the cross-form plan or to numerous housing forms in traditional cultures in which the finished outer form is also determined to a very large degree by the pushing out of the inner structure, analogous to a form of growth. From this point of observation, the house type built attached to it is a completely contrary facility. It is a finished form, determined by its outer appearance, a familiar building reminiscent of a factory with an analogous character. Corresponding to this seemingly pre-given outer form are the apartments which are fitted into it. The large windows on the façade are important to the factory-like image of the façade and are simultaneously also an expression of the two-story apartments that are located behind it. The differentiation and the placement side by side of these two house types first becomes completely comprehensible and meaningful in Relationship to the project's site on a land parcel in Basel on the Rhine on the edge of the historic city. The conglomerate-like house is located on the river and becomes part of a very heterogeneous urban riverbank development while the added-on « classicist » house is located in the back courtyard.