

ARCHITECTURE, MOVEMENT AND MIND

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length: ~ 30 min.

1. The <Oceansteamer-subject> in Modern Architecture

"The subject of movement - [is] the most decisive factor of our times" said Gropius in 1914 in his contribution¹ to the yearbook of the German Werkbund. In the widest sense he meant the importance of dynamism in the expression of the new architecture he among others had in mind. Egon Friedell, a cultural anthropologist didn't share this enthusiasm. "Zealous small trains, large buses, tramcars (...) dominate the cityscape; expresstrains, annually improved telephones, daily expanding telegraph systems provide large distance-communications. This communication system doesn't just lend man higher speed, but also ubiquity. He is everywhere, consequently nowhere, encompasses a total reality, but by means of totally dead substitutes for this reality."² Sedlmayr too considers the tendency towards movement as a main characteristic of modern architecture and thinks that "taking architecture off the ground" produces frailness (in a psychological sense); and the alignment of architecture with the machine leads to emphasis of all which is mobile: "the utopia of dynamic houses, brought down on the level of the ship, the airplane and mobile homes: clearly a symbol for man's recent renunciation of willing to have a place, a place where he can stay, a place he can build and rely on."³

Architecture and movement. One of the most important books of recent architectural research works in this field of tensions: Gert Kähler, <Architecture in the light of symbolic decay: the steamer-subject in modern architecture>. It tells us about a paradox. Strange mothers gave birth to modern architecture in the twenties: the gigantic oceansteamers at the turn of the century.

Kähler shows the Euro-western elites getting seized by an immense fascination. Within a short time oceansteamers increased

to a size unthinkable before. They became the incarnation of technical progress. Northern Atlantic routes offered regular connections between the Ancient and New Worlds. They became the symbol of the worldwide expanding economy and consequently of a new global consciousness. They had names like 'Imperator', 'Bismark', 'Empress of Britain', or 'Titanic'. In regard to their size they were estimated as 'floating cities', they were compared to medieval cathedrals launched now - how daring! - into the waters. Criticism on the other hand spoke of 'floating Babylon'. Robert Musil has described this "inspiring fever", the atmosphere of emergence into the 20th century: "Nobody new exactly what was in the making; nobody was able to indicate, whether it was a new kind of art, a new humanity, new morals or eventually a change of social stratification, but everywhere people got up to fight against the past."⁴ Breaking away from traditions. What is new gains value by itself: movement, progress.

Another development shaped those times. Progress of industrialisation produced emigration to the cities and an explosive growth of population. In the frame of rising capitalistic economy cities developed rapidly into anonymous metropolitan crowds. Dominating elites felt threatened and set themselves at the head of evolutionary movements trying to solve rising social problems by newly conceived utopias: the new city, modern architecture, a new society, a new concept of man. The model: the oceansteamer, the gigantic machine.

Kähler shows how futurism begins to indicate the theme by charming machines and speed, how then, in the German speaking area Walter Gropius, Ernst May, Hans Scharoun, Otto R. Salvisberg and Erich Mendelsohn and particularly Le Corbusier in Paris began to integrate elements of steamers into their architecture like iron stairs, deck rails, porthole windows and protruding balconies. This borrowing included basic design concepts like linear addition of standard-dwellings which were derived from steamer cabins. Often the whole house with its vertical elements protruding chimney-like over the uppermost deck, the flat roof, was conceived according to this model. The same is valid also for Russian constructivism which Kähler analyses in details. He shows clearly how direct and simplistic, often verging on the limits of banality these borrowings are.

Modern architecture as means of transportation? Kähler discusses this architectural symbolism in the frame of semiotics and shows how these pseudo-steamers in the urban landscape were related to social utopias which were derived from heterogeneous ancient metaphors related to ships (departure, ship as community etc.). On the other hand such utopias were nurtured by a naive faith in social salvation by powerful machinery. The result of

¹Der stilbildende Wert industrieller Bauformen

²E. Friedell, Kulturngeschichte der Menschheit, München o.J. :1351

³cited acc. to Kähler :59/4

⁴Mann ohne Eigenschaften. Hamburg 1970, :55

such impulses: the esthetics of machines, the dwelling machine etc. we all know these things today and their effects. Kähler leaves the metaphors in their utopian context, but describes clearly their descent, which he interprets in the frame of senilities. The codification of architecture was successful at the beginning, but lost its base through various developments (e.g. airplane). Result: decay of symbolism in architecture. Like the Titanic, the steamer-subject was shipwrecked. But what was the cause? Merely a lack of codification, as Kähler assumes, in such a way that the public did not understand the codification of the pioneers and lost interest? Or are there deeper reasons? From quit another point of view: are the concepts of human dwelling a means of transportation not compatible? As Sedlmayr hinted to: is it absurd in a humanistic sense to conceive a house in terms of an instrument for mobility? We will deal with this later.

Important for the moment: Kähler presents only one side of the coin: the creation of modernism, the transfer of steamer symbolism on architecture and the decay of this concept. On the other hand he hardly speaks of the radical changes produced by the absolute refusal of the architectural tradition. How was this total rejection possible? How did it happen, this 'decay of symbolisms' on the side of the premises of modern architecture? This too has something to do with our theme of 'architecture, movement and mind'.

2. The history of styles and the spirit of movement

At the 10th Congress of architecture and planners (IAPS) at the TU-Delft I presented a paper last year with the title 'The birth of grid-facades from the spirit of style'. Using Heinrich Wölfflin's famous study entitled 'Basic terms of the history of art' the scientific method of the history of styles was confronted with Nietzsche's vital concept of art. Based on psychology Wölfflin's analytical method differentiates forms according to paired criterias like 'linear-picturesque', 'surface and depth', etc. which results in the distinction of different styles like Renaissance, Baroque etc. In contrast to this Nietzsche assumes two essentially different fields of expression in art: clarity and ex-stasy, statics and dynamics, the Apollinian and the Dionysian. Nietzsche works with the interactive relation of these two forces. They are antithetically united, penetrate each other mutually, manifesting contradiction and tension. They are interdependent in a complementary way and thus are creating ever new types of syntheses.

My paper showed that it was essentially the method of style which - since Winckelmann - smoothed the way for the eclecticism of the 19th century. After Winckelmann's establishment of classi-

cal style (1764³) other styles were discussed and gradually acknowledged: Gothic (Goethe, 1771⁴), Renaissance (Jakob Burckhardt, 1860⁵), Baroque (Gurlitt, 1883, Wölfflin, 1888⁶). In the 19. century folios containing architectural details of all known styles were available in great number and were used intensively by architects. Cataloguing styles and their arbitrary reproduction devalued their authenticity in the historical sense and led finally to the total refusal of the 'salad of styles' by the modernists.

In the confrontation with Nietzsche however style as a method becomes one among others and not necessarily the happiest one. As Wölfflin confesses himself: the artist does not understand him. If art is considered a synthetic process in the sense of Nietzsche, the analytical approach necessarily dissects its essence. Art therefore simply escapes scientific description, because it is contradictory to logics. If the history of art had followed Nietzsche's theory, the tremendous shock caused by the total devaluation of the architectural past would never have happened.

Taking the example of the portal or the window, what was said until now can be presented schematically as follows. Dealing with this tectonic element the method of style differentiates according to characteristics like arc, pointed arc, etc. In the series of forms this means horizontal distinction: various styles. In contrast to this Nietzsche would place the difference vertically in each form. He would consider the rectangular lower part as a clearly defined, relatively self-contained unit, the apollinian part of the form. The upper part with its dynamic curves would be judged the Dionysian complement. Distinction is vertical. The essential consequence: in spite of individual differences, all forms are analogous.

In this way the expression of the forms totally changes. All different styles are reflecting the same formal principle. They show tension between essentially two different potentials. A clearly defined lower part, resting on earth and showing definitely its static functions is contrasted with an upper part which expresses dynamic values.

We are again on grounds of our initial theme: Architecture and movement. But in a quite different way. Movement is not meant in a technical sense. It is not a borrowed category here eclipsing an object of architecture in its totality. Movement is an integrated part of architectural form. It creates a spiritual tension within the same form in its contrast to the statical part: two different Gods are fighting for harmony.

³Geschichte der Kunst des Altertums

⁴Von deutscher Baukunst

⁵1860, Kultur der Renaissance in Italien

⁶Das Barock- und Rokokoornament (2 vols.)

⁷Renaissance und Barock

Nietzsche was probably right that he attributed this formal principle to **Gods of Greek cults** which means that it was **not a human invention** but derived from ancient cultic traditions. In this sense I explained the polar relation of this type of tectonic form with cult traditions of Roman antiquity. In Roman times every settlement district (vicus) was provided with numerous small temples called *aediculae*, *sacellae* in which figures of various Roman Gods protected fields, streets and settlement grounds. Their sacred structure - always with **cosmological meaning** - continued into medieval icons, **sacred objects on christian altars** and thus the polar pattern continued long into religious Christian painting until perspective view replaced it gradually.¹⁰ Architectural expression of **'coincidentia oppositorum'** as it characterises eg. the Hagia Sophia in the text of Prokop thus is of ontological meaning. Architecture, movement, mind.

4. Dagobert Frey: monument and access route

In his extremely important study *'Foundations for a comparative history of art'* (1949 Vienna, 1970 Darmstadt) Dagobert Frey freed himself from the methodology of style. Widely spanned over many cultures and styles he describes **basic structures of figurative art and sacred architecture**. Similarly like in comparative linguistics the *'language'* of art and architecture can be studied in regard to identical categories. Comparing various cultural areas implies "something common and continuously remaining the same" he says. And the following is very important for our approach: **"Any polar opposition implies a common equality which frames the opposition..."** Polarity as a superior common denominator of various formally different but polarly structured objects? We will return to this point later.

Ernest C. Hassold compared Frey with Wölfflin, but this comparison is **problematic**. Based on psychological grounds Wölfflin uses formal criteria for his analysis which results in the distinction of two different styles. Frey starts from an *apriori* of basic categories related to the human body and space perception (Körper- und Raumgefühl). **"All pictorial art is figural or spatial representation."** His basic terms are thus derived from the "subjective experience of the environment and its spatial conditions." This basic pair is further differentiated with the basic categories 'rest and movement' (Ruhe und Bewegung).⁷ The result are four pairs. Related to the physical body: the *'standing and proceeding-subject'*. And related to spatial per-

ception: the *'monument- and accesspath-subject'*. A well-structured system of categories which proves highly fertile in the intercultural material presented by Frey.

Frey clearly deals with **"basic subjects of general validity"**, following Goethe, his intentions are to clarify **"primary phenomena"** (Urphänomene) of a **"morphology of the history of art"**. Sculpture and architecture are closely related in his concept of coupling man and space. They stand in a dialectic relation. Though externally at rest his *'standing-subject'* is "the expression of potential energy", proceeding is potentially included. In the same sense space includes the *'monument-subject'* as an expression of "space at rest". "In setting up a monument within a boundless, non-defined and shapeless spatial environment I already shape this space; I give it a central point on which the surrounding environment is related," and "The path on which I physically proceed through space corresponds to movement in space. This path in its spatial aspect is therefore the space characterised by movement. As the focus of perception, as directional code, as the spatial goal, the monument includes the access-route, "and the movement can be directed towards the monument or away from it. Or it can circle around it." All architecture is the creation of space by creating a monument or a path." (16/13)

Further Frey connects this 'morphology' with time. It thus gains an anthropological dimension. The temporal experience of basic morphological types yields "basic world- (or environmental) perceptions." In this sense Frey considers his materials **"documents"** of the clash between the ego and environment. Standing posture and the monument are related to movement and path and the latter are structured in different modes. E.g. type (speed, rhythm, (ir-)regularity), of experience of time (past, present, future), form of procession (directed to goal, without goal, circling around the monument).

Following Nietzsche (demonic tension between internal drive and external reality), Rilke (all art springs from desire for security) and Emanuel Löw (apophthaeic roots of art), Frey combines his patterns with a psychological motive, the need for security and thus builds **interdisciplinary bridges**. Art is connected with religion, myth and philosophy by this need for securing existence. Even if one has different reasons for this context, this interdisciplinary approach is important.

With his four basic subjects Frey goes on an impressive journey along buildings and sculptures of afro-eurasian cultures. If we limit ourselves on architecture, the *'monument-subject'* passes by at Egyptian pyramids, at Mesopotamian ziggurats, at the temple of the hellenic cultural area, at the towers and domes of the Christian occident, at the dome-shaped roofs of churches of eastern Europe. In India Shikharas, stupas and chaitya-hall are discussed as well as the pagodas of the Far East and the Chinese temples and sacrificial terraces.

¹⁰see Emil Maurer: von Ziborium zum Triumphbogen. In Carl Peter Braeuer (ed.), *Architektur und Sprache*, München 1982

The second journey discusses the **access-route** of Egyptian temples of gods and of the dead and their gigantic access-halls, the impressive festival routes of Babylonian and Assyrian temples and profane monumental buildings of Babylon. Further the linear extension of the Greek cella and the access routes of processions eg. at Delphi. In the basilicas of early Christianity and in medieval cathedrals the access-path to the sacred place is integrated into the building, whereas in the churches of Eastern Europe and particularly of Russia the path-subject is omitted: the sacred building expresses community. In the case of India, the path encircles the monument and in the Far East, particularly in China, the large spatial axes attribute monumentality to the subject of movement.

5. Hut and Hat: Architecture and theory of cognition

As mentioned above, Frey's study is related to the history of art. It thus cites considerable materials which are discussed with great competence. But maybe the richness of these materials cover up an important aspect of the theory of cognition: the meaning of polarity. On various occasions Frey underlines the complementary relation of rest and movement, of standing and proceeding, of monument and access-path. In the corresponding chapters however he discusses the particular categories relatively isolated as dominant expression. Of course the monument implies access, and access implies monument, but what is essential, is the complementary relation of the paired categories. I would like to explain this in a schematic way in the following, again with two types of architectures. In simplified outlines I am giving an important result of my study on 100 villages in Japan.

Hut and hat, what do they have to do with each other. Architectures? Cognition theory? I am drawing two identical forms, each one consisting of a triangle standing on one of its sides and above it a rough circle of not well defined character. As long as we remain in the abstract both forms are absolutely identical. Now we draw a face below the triangle on the left. Headgear we say spontaneously, pointed cap e.g. At the right triangle we insert an entrance, a line marks the ground and above we draw the sun, two three clouds. A tent, a hut, a dwelling. Suddenly those two identical forms have become something entirely different. In our usual way of thinking they are distinguished according to size, quality, location and function. Thus we can firmly say: according to our western logics hut and hat are incompatible.

Now back to the other set of identical triangles. We do not enter the location first, but emphasise their similarity and say: they are interesting forms, they are very balanced, what can my imagination do with it? I draw a face, a pointed hat! The other

at the right is transformed into a tent or hut. Of course we have exactly the same result, but the way of looking at it is different: it starts from identity, not the differentiating function counts, but the formal or categorical analogy.

Hut and hat as close relatives! Hut on one's head or living in a hat on the ground? The attempt to reconstruct this type of thinking in terms of analogies was one of the task of my study on the village-cults in 100 villages of Japan. This world-view gains its meaning from its intention: the design of harmonies. This is not an abstract ideology, but a concrete and permanent act: to balance opposites. The categorical harmony of the object counts, not its function. Thus on cultic festivals in this society we find its members dancing around a sacred hut. Their festive clothes consist essentially of a small hut with its richly decorated protrusions on the top. Man transfers the harmony of the sacred hut on himself.

This really is a world-view! Its ultimate goal is the following. If among hut and hat emphasis is put on the formal or categorical relation described, thus hut and hat being identical or similar in regard to polarity, this is valid in a general sense: Very different objects can be closely related in regard to the condition of balance. If they satisfy the condition they can be identified in regard to harmony: they lose their names. The things of the Universe can be very different in size, quality, function and localisation, but in regard to polarity they are the same. An example: Tschuan Tse says: "From the standpoint if difference among things.. we distinguish the liver from the gallbladder, the state Tschu from the state Yüeh. But from the standpoint of identity, all things are one." Liver and gallbladder should each analogously be in harmony, and the same is valid for the two states.

6. Tao: the path and movement as world-view in China

Hinting to Northrop >the Meeting of East and West< Frey calls for new "basic terms" and emphasises the importance of east and west in cultural comparison. Shortly before closing his discussion on Chinese access-routes< of temples he speaks about the Chinese concept of the path. "The concept of path, ... of Tao, the regular course of the universe forms the basis of the Chinese world-view, as well as in religion and ethics, as in regard to social structure and science." And further: "Difficult to grasp for Europeans, the term Tao relates the concepts of movement and rest..." Taoism thus considers path and movement a prerequisite, an essential condition of life and matter. Over thousands of years, it grew into a world-view, an ontology in China. Therefore Tao, the path is also Teaching, Morals, Ethics. Chinese temples clearly show that the teaching of the path is not an absolute or mysterious philosophy, but an ancient and basically human condi-

tion. Architecture and movement, temples and paths are arranged in complementary units of particular districts. Polarity, harmony of place and access.

Köster writes the following on Chinese Universism: "Besides observation of reality as an orderly and directional whole the ancient Chinese thinkers made a further discovery, they discovered **polarity**. All 'tenthousand' things were not unrelated isolated single things, rather they believed, that the primordial seed of all Becoming developed in two opposite but centripetal series of effect which are conditioned mutually, change and complement each other continuously."

Paradoxically, with this ontology, with this world view we are still in the **field of architecture**. According to Richard Wilhelm's introduction to the I Ging, which is the most ancient Chinese divination book the origin of polarity between Yin and Yang is called **Tai Gi**, which has the meaning of >the big ridge<, the uppermost part of a roof.¹¹

7. Conclusions and prospect

Back to the beginning! At the end of his book on the social utopias and the symbolisms which modern architects borrowed from oceansteamers, Kähler demonstrates how Jencks and others discuss new codifications for Post-modern style, giving recepys like >rheterotics< and >overcoding< (Jencks), >ambivalence< (Maxwell), >diversity< (Rob. Stern), >shattered form< (Schump and Throll), >new syntax by decomposition< (Peter Eisenmann) etc. etc.. Question: Why do all that so arrogantly superficial? Is architecture, after all, really such a superficial thing?

LEGENDS (Archit. - movement - mind)

1. Ocean steamers around 1900
2. Steamer and steamer-subject
3. Le Corbusier, Unité
4. Wölfflin, style; Nietzsche, tension/harmony
5. Architecture and movement
6. Frey; monument and access-path
7. Hut and hat: cognition theory
8. Harmony of 100 villages (Japan)
9. Hut and hat: borrowing harmony
10. Logics and harmony
11. The ridgebeam and the origin of polarity

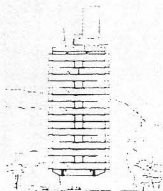
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¹¹I Ging, Das Buch der Wandlungen. E. Diederichs, Düsseldorf./Köln 1960, 15

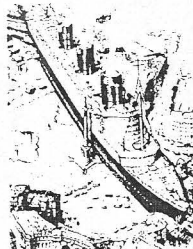


12 Schnitt eines Dampfers (aus: Le Corbusier
„La Ville Radieuse“)

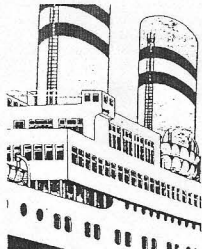


18 Le Corbusier: Unité d'habitation,
Marseille 1946-52 (Schnitt)

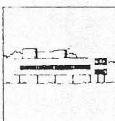
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8 „Queen Mary“ auf dem Trafalgar square

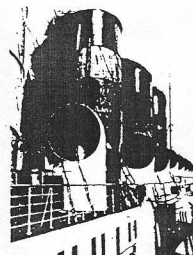


10 Werbeplakat der „Stander“, 1927

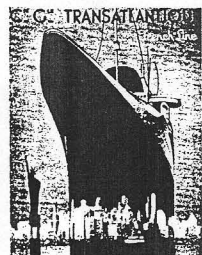


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3 Heck der „Aquatania“ (aus: „Vers une architecture“)
Villa Savoye (nach Vogt)



1 9 Duple „Mauretania“



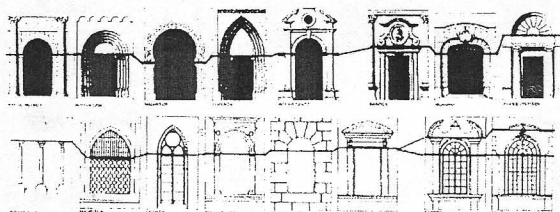
11 Werbeplakat der „Normandie“

LEGENDS (Archit. - movement - mind

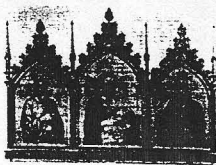
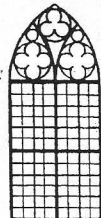
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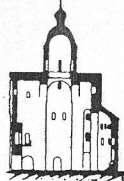
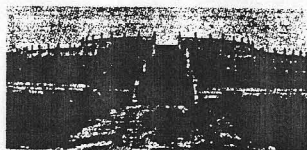
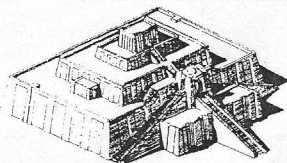
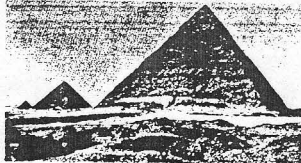
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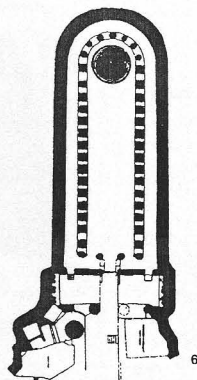
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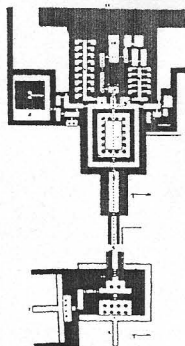
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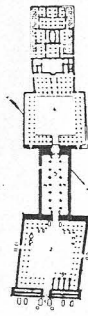
3. Novgorod,
Erlöser-Kirche 1374



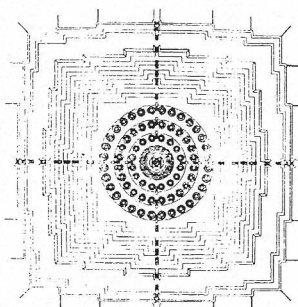
7. Kärli, Tschaityahalle



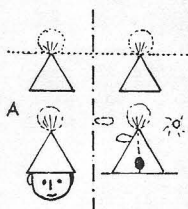
9. Grabtemple des Königs Sahurê



10. Tempel ru
Luxor

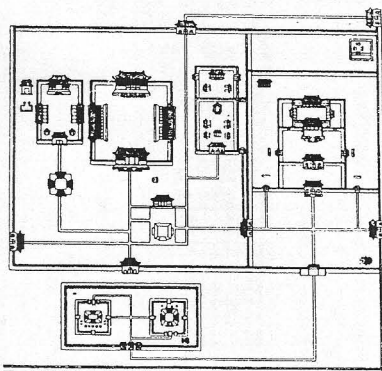
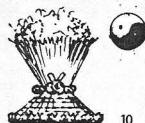


25. Horo Bahariya



$A = B$

$A \neq B$



28. Opfergelände des Akerheutempels in Iking

