“This will of constructing in lively way is the effective tradition of building.”
Bruno Taut

Bruno Taut, Bruno Taut house, the coloured studio. Berlin-Dahlem 1926.
ARCHITECTURAL PRACTICE AND THEORY: THE CASE OF BRUNO TAUT’S HOUSE IN BERLIN-DAHLEWITZ

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ABSTRACT

In 1926 Bruno Taut built his own house in Berlin-Dahlewitz. The German architect had already declared his ideas of housing in the book Die neue Whonung (1924) exemplifying the new concept of modern living-style, according to Neues Bauen. In other theoretical writings he defines the Neues Bauen in relation with new needs, tendencies and aesthetics of architecture, referring to important issues as climate, topography and tradition. The book Ein Whonhaus (1927) stigmatizes the coeval construction process of his house: the thirteen chapters are a detailed analysis which give evidence to every technological and morphological choice. Taut focuses on the relationship between architecture and landscape, type of furniture, functional plan layout, use of glass; especially he enlightens the reader as to the use of colour as a construction material. The house has an unconventional shape, it is a quarter of a circle; in his writings the architect painstakingly explains the impressive plan. With the book Ein Whonhaus Taut delivers to memory his home design, transforming process and ideas related to the modern house. He breaks through conventions and changes the notions of what Modernism could produce. The paper highlights the theoretical production related to the architect’s own house as praxis for doing architecture, emphasizing Taut’s contribution to a dialectic mutual relationship between theoretical and architectural practice, in order to achieve a more conscious and effective design process.

KEYWORDS

Neues Bauen, Modernism, theoretical writings, praxis process, colour

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1. INTRODUCTION

*Ein Wohnhaus (A house for living),* the book Bruno Taut wrote in 1927 a year after the construction of his own home in Berlin-Dahlewitz and about its building process, is a small masterpiece of describing and illustrating architecture. We could state that book and house are by some means interchangeable; the one says about the other and complete the other. It is a modern operative means that is related to the concept of militant action of architecture, which requires a careful exegesis in order to attest its necessity of emphasizing all those premises that are prerogative of Modernism. Through his writing, the architect intends to subvert the traditional image of the house as a symbolic object, almost sacred and unchangeable, thus giving breath to a new idea of architectural space as an object of use created for the individual, which focuses on man’s needs and demands according to the functional, social and human perspective. The house must be conceived as an architectural object completely subjected to the man and not the reverse; hence, the necessity for an architectural design process tightly planned for the individual. He validates the concept also in the choice of taking photos of his architectures while individuals are interacting with them, far from a mere aesthetical and self-celebrating process of the built space. As Taut himself states, «It is not interesting the appearance of the spaces without men. It counts only the appearance of the men within the spaces». (Taut, 1927. It. ed. 1986). Starting from the second decade of the twentieth century until 1938, the year of his death, Taut systematically carries on an intense writing activity which comprises about four hundred writings including books, articles, essays, etc. Between 1924 and 1927 the architect writes the trilogy that covers issues closely related to the construction of new architectural projects: *Die neue Wohnung. Die Frau als Schöpferin (The new house. The woman as creator, 1924), Bauen. Der neue Wohnbau (Building. The new residential building, 1927)* and *Ein Wohnhaus* in 1927 as well. Until 1931, Taut is living the ‘Berlin golden years’ during which he is the undisputed protagonist of the construction season related to the *Siedlungen,* a building type capable of generating a new and successful urban morphology of residential units for workers. The architect pays attention and reconciles constructive functionalism and aesthetic reasons of the *Neues Bauen,* thanks to a special care of psychological and human factors in relation to new social needs. The new technology and the functionalism are not justified because of a new trend in architecture, but rather they are related to the concept of enhancing the quality of life within the private sphere of workers’ life. Nobody could have stated to have built in Berlin has Taut did, indeed in less than ten years he will construct about ten thousand housing units according to his revolutionary concepts, giving a new face to the city thanks to the new residential typology of the *Siedlung.* Thus it is of fundamental importance to consider the theoretical apparatus of his books because they represent the idea of architecture that the German architect sets up in those years.

2. THE POETICS OF HOUSING

In the history of architecture, there are not many cases where the architect is both designer and commissioner; in this specific condition the project often assumes strong symbolic meaning representing the world itself of the user-architect who, showing a *room on one’s own,* exposes the inner aspects that concern the private sphere and involve the person in his entirety. Therefore on one hand Taut builds for himself and his family, on the other hand he points the way - through the written word too - of a possible new architectural type. The basic idea of the Dahlewitz project arises from the awareness of wanting to create a functional and adaptable space that is flexible to the different needs. A space which can change, adjust itself to the necessities of those who inhabit it and that can be strongly related with the surrounding context, in search for continuity between exterior and interior. The prodromal concept of this functional and constructive flexibility can be found already in the publication *Die Auflösung der Städte (The dissolution of the city)* written in 1920: by dissolution Taut refers
to dissolution of old forms of the bourgeois city, meant as liberation from their strict compulsion. In a book’s table Taut draws an ‘architectural box’ with a single compartment whose shape can change freely, according to light necessities and space needs. It does not refer to the box of Cubism of course, which derives from a formal vision, but it is rather a changing space which adapts itself according to the necessities of those who live in. The inner walls are mobile so that the interior of the house can easily follow any desire of flexibility in using the space. As Taut emphasizes in the written comment added to the drawing, in this large cell each member of the house can easily be isolated; closets are not an obstacle because all are cabinets within the wall. Anything else is mobile; each wall has a different colour also outside, as well as the ceiling. Taut continues: «Different lifestyle contents create different forms of life (...). At the beginning, there is just a ‘box’ of a single living compartment. The form varies according to the wind, sun and position. Division into homogeneous walls are composed always in different ways. (...) The House is transformed like the man, movable and stable at the same time». (Taut, 1920. It. ed. 2008).

Therefore he does not speak of form and function but about contents, from which new forms can take life. In the Dahlewitz project there is a new form that can be immediately identified: it is the unusual plan, a quarter of circle (Fig.1) that is beyond any typological scheme, a desecrating geometry that seems to defy the rationalist rules of the right angle. Also the common perception is impressed, so much so that Taut’s house is satirically defined by the contemporary Berliners ‘the cake’s slice’. (Melis, 1982).

But Taut is not interested in designing per se desecrating forms, rather in composing a shape, which is the result of the interior functions and of the close relationship between the interior and the specificity of the place. With strict logics he states: «The convexity of the plan is a factor which affects the spatial economy: the circle in fact, in relation to the length of its circumference, is the figure with the largest surface. Moreover the plans that deviate from the dogma of the right angle and of the rectangle offer many favourable possibilities of use and arrangement of space». (Taut, 1927, It. ed. 1986).

The form of Dahlewitz becomes the symbolic space whose poetics is related to the image of the circle: it is the expression of a harmonious social life where the relations among the parties become immediately obvious. A one-to-one correspondence between man and the house is established, between the individual and the most intimate space of his everyday life; indeed home, deprived of human presence, does not reflect its true vocation of fostering and enabling the sociality among individuals. Taut corroborates this concept in such a sharp way already in 1924: «The successful environment, without the inhabitants is nothing and remains ‘empty’. It takes consistency and becomes ‘full’ and finished only with humans who live there». (Taut, 1924, It. ed. 1986).
The architect’s task is thus to reify the ‘social culture’ in which he operates becoming a mediator between the project itself and the absolute values it represents. Here therefore the book written by Taut in conjunction with the project, in this light takes on a profound significance related both to artistic expression and functional characters, aimed at helping the sociality of the space, whether individual or collective.

3. HOME, A SPACE FOR HUMAN EXPERIENCE

A major component of Taut’s design process is the rational use of the house and related spaces. But the word ‘rational’ evokes immediately that Rationalism which was far from the main goals the architect wanted to achieve. His aim is to facilitate the functions that take place in the house so as to generate a ‘human experience’ which has to be simple, clear and sympathetic.

It is precisely in the functionalism and in the distributive characters that Taut combines the spiritual values of the house as a place of intimacy, with the space of the outside world.

That is why the architect describes and justifies the spaces and the details of his own home with great wealth: the functionality of the plan (Fig. 2), the reasons of colours both inside and outside, the details about the technical devices. To which extent he takes into account the practical requirements is demonstrated, for instance, by his efforts in facilitating the housewife work: in designing the plans the architect is always careful to locate the kitchen so that it is easily accessible from the living room (Fig. 3); the closets are mainly wall cabinets to ensure the least possible obstruction. In the house there is no more room for the useless furnishings which take room and make the space heavy; only what is really useful belongs to the house.

The natural sunlight has relevant influence in the design choices; that is why Taut decides to treat the two main fronts, east and west, in a complete different way in terms of colours. The black of the convex east façade emphasizes and supports the unusual distribution

Figure 2.
Bruno Taut, Bruno Taut house, the paths’ lines. Berlin-Dahalewitz 1926. Source: Bruno Taut, Ein Wohnhaus (Franckh’sche Verlagshandlung W. Keller e Co. Stuttgart, 1927)
The drawing emphasizes the functionalism of the design.

Figure 3.
The cake slice and the service spaces.
of openings; it counter poses the white of the west façade, ‘sullied’ by the yellow and black frames of the windows and by the large black top cornice. The choice of different colours on the fronts is also related to energetic reasons, as the architect Winfried Brenne, who restored the house, has stated: «Alongside aesthetic standpoints, energetic considerations played a considerable role for Taut. The white on the inclined wall surfaces beams warmth back during summer, while the black east façade ‘sucks the morning sun’s light and warmth into the house’». (Brenne, 2008).

Taut uses mainly light colours at west (Fig. 4) in harmony with the warm light of the afternoon and darker and warmer shades at east (Fig. 5), to intensify the cold light of morning. He summarizes the relationship of the blue sky and red sun light in the red-blue dialectics, which originates from the suggestions induced in Taut by the poetic colour interpretations of the poet Paul Scheerbart. Taut wrote: «Game of blue and red: enlightened directly from the sun they emit perfectly identical reflexes, to the clear light of day red becomes clearer, almost pink, and blue accompanies it with a darker and deeper shade; then the twilight comes and blue with the increasing darkness becomes more and more clear, almost white, while red becomes darker and darker, almost black. Alternating changes. The lamp – the human light – makes them rather similarly muted and mild. In this manner the cosmic game of double light of red and blue arrests». (Taut, 1922. It. ed. 1976).

Thus behind a specific technical choice, the architect adduces functional, practical and poetic reasons.

The colour is used to a large extent inside. Thanks to the use of colour, the living room becomes an expression of the family life, the bedroom is designed to express the function of resting; the kitchen is the uncontested functional realm of the woman. The purpose is to differentiate each room and every function that takes place in it; the colour choice is always functional in relation to the room and the individual. We could state that this choice is conceived according to the revolutionary concept of ‘environmental psychology’ which focuses on the needs of the individual instances. The windows and the doors, in addition to the functional value of internal/external connection, thanks to the
colours announce in the interiors the external vivacity. Even radiators and pipes, which in common practice are muffled with neutral colours, here are highlighted in red and blue or yellow (Fig. 6), like the ribs of a living organism whose internal physiology ensures the life itself of the building body, and therefore they should not be hidden but rather emphasized. In Ein Wohnhaus, in order to better specify his colour choices, Taut gives advice by attaching the Baumann colours' tones as exemplification of colour shades (Fig. 7).

The architect pays particular attention also to the orientation of the surfaces: the intensity of the morning light is different from that one of the afternoon and he does not compromise on these specifics. Indeed he makes of it a strong point to getting the maximum colour yield. He specifies: «The continuous change of the incidence angle of light produces changing perspectives (...). The dye must bring out the volume of the complex. The vibrancy of colour and its different brightness permit from time to time to expand the perspective planes to some degree, or to restrict them». (Taut in: Pitz, Brenne, 1980). The architect likens the chromatic composition to the musical one: behind the careful attention to the use of colour there is the wish to express a new kind of musicality whose execution is entrusted to the different shades of colours, so much rich so as to overcome the ranges of the 'instrument' itself. It can be said that this intimate search reveals the romantic essence of Taut, peculiarity that confirms his figure as outsider within a prevalent rationalist concept of the Neues Bauen which considered the white colour as an almost absolute must.

Considering the plan layout, on the terrace it turns to be a ninety degrees angle which ostentatiously seems to indicate a specific direction - towards the garden - as symbolic direction toward the future (Fig. 8). The angle and the curved line are the expressionist legacy which is reified without jeopardizing the dogmatism. Indeed the flat roof which closes the image of the house on top seems to be the confirmation by Taut of adhering to the logic and the features of Modernism. But also for this choice, there is an extremely interesting motivation. Taut's use of the flat roof is neither a simple pursuit of formal gratification, nor a strong 'break with the past' reaction; it is possible to introduce the hypothesis that the roots of this choice should be searched for in the theory of 'climatologic' architecture first launched by Taut in a 1925 article entitled The Aesthetics of Berlin Buildings: «Referring to its global setting and in comparison to all other metropolitan cities, Berlin has the advantage to possess and enjoy a hinterland and a characteristic landscape: the Mark, having remnants of an old culture and traditions present to a certain extent. On the other hand, there still exists some virgin land with
the quality of a rural setting that magnetically attracts intellectually equipped people or those with elevated entrepreneurial skills, from far and wide. Referring to this characteristic of Berlin, I would like to underline an architectural and aesthetic feature that seems to have been long neglected [...]. In all the theories of Architectural Aesthetics – Taut continues - there is little concern for climate, but according to me, this factor plays an important role [...]. The landscape related character of the lowlands is the horizontal that reigns everywhere. All the components of the landscape are adapted and in the Mark are accentuated with the horizontal line of the pine forests far beyond the water’s surface. The winds easily sweep the territory away, and the view is never obstructed till the horizon [...]. All the constructions, which were built in this area till the 70s’ of XIX century, demonstrate a similar feature: that is the extreme terseness of the contours and a great love for
simplicity [...]. From Eastern Prussia to the Bergisches Land, the most stripped down solution of cube and roof is found […] in the simplest houses. There is always a recognizable attempt to push this concision to the limit, up to the very elimination of the view of the roof».

(Taut, 1925).

The elongated surface made of glass prisms, which runs throughout the convex front, can be considered the real focal point of the entire house (Fig. 9). It has the power to unify the inner vertical space of the two floors by bringing light to the stair-element: from here, the light irradiates in the entire house. The different tones of the natural light, changing incessantly during the day, provides the richness of different colour’s nuances. The sharp angle of the top roof covering the balcony is also made of prismatic glasses, which filter the light to the space below giving light to all the bedrooms. The balcony is the place the three bedrooms are facing to, thus they are connected in this interesting semi-private filtering space.

4. THE TECHNICAL DESCRIPTION OF DAHLEWITZ AS THEORETICAL WRITING

The book *Ein Wohnhaus*, as already pointed out, relies on the synergistic action between text and image. The index itself discloses the framework Taut means to give the publication, thanks to the chapters which go straight to specific issues closely related to the construction of a house for living: it goes from...
the analysis of 'Type' to 'Glass Architecture', from 'Set table' to 'Bedrooms' then closing by focusing on 'Roof and attic' and 'Garden'.

The third chapter, 'Architecture and landscape' is crucial to reveal clearly the importance of continuity between interior and exterior space (Fig. 10), prerogative of the modus operandi of many masters of the Modern Movement. Taut does not hesitate to explain: «Particularly when it is a house built in an open space, there must be not a clear demarcation between exterior and interior. The whole house is certainly the result of its interior functions; to the same extent however it is determined by its relationships with the existing conditions in the place of construction, from the position in relation to the sun, from the garden, the landscape and finally from the neighbourhood». (Taut, 1927. It ed. 1986). Although the book basically presents a disciplined building practice with strong educational value on the construction of his home, according to Taut's intentions it rises to a wider significance, traceable in all his buildings. Even though Taut was keen in using the new concrete technology, together with the prefabrication and the standardization of the construction site (the experience with the Siedlungen), for his own house he prefers to rely on the very well established bauen tradition, choosing the traditional technique rather than the skeleton and the filled walls type. It is opportune to remember that Taut's education includes also the studies in a technical building school which trained him on construction sites already when he was only seventeen years old; thus he had also a deep knowledge of traditional construction methods through a serious practice since early years of his interest for architecture. Despite the fast development of the new technology and materials between the two World Wars, this was still a common practice: «However the same path to a manner of housing architecture reduced to a few house-types and based on industrial prefabrication was also taken by those planners who distanced themselves decisively from Neues Bauen and announced their intention to take up and use historical, traditional and landscape features of the region in their designs». (Krauskopf, 2013). But in Dahlewitz there is also a combination of technology: inside, there are no supporting walls; there are only two massive pillars at the centre of the house. The very interesting thing is how Taut explains in the chapter 'the type' a possible combination of solutions for achieving the final aim of the project, questioning on the concept of the house as machine and the rationalistic approach: «The main mistake of the rationalizing fashion, as such, is to identify in the fact that industrial production in series is referred schematically to an overall object, the house done and completed, which presents in reality very different and diversified structures. In its correct interpretation the need for a rationalization means rather that the individual elements, which will form a whole thing, are first of all analyzed regarding to their function; later the most simple production system will be studied and at the end only the individual elements will become the subject of industrial production. Therefore let's not think of the house as a machine but rather of every single part, windows, doors, cabinets, walls, etc., which we can later compose as needed». (Taut, 1927, lt. ed. 1986). Therefore, Taut conceives the house as a combination of different elements which can be combined in diverse ways, according to the need,
rather than a ‘compact object’ to be standardized in its complexity. By this meaning, the general idea of the type is more related to an abstract concept. While talking of ‘type’, the architect seeks a universal value when he writes: «Beyond the vast or reduced dimensions of this house and the number of rooms, rather even beyond their specific distribution, for those who think in healthy and simple way it will be always essential the fundamental tendency. Thus common sense determines in the easiest way the concept of ‘type’». (Taut, 1927, It. ed. 1986). In the description of his home in Berlin Dahlewitz, Taut highlights the new way to derive the form of a building from landscape, light direction, relations with the cardinal points and individual lifestyle of those who live it. But along with – and before – functionalist instances, practical and functional aspects that a building have to fulfil, the architect of Koenigsberg stresses the social needs, psychological factors, the needs intimately human of the individual; a praxis of architectural doing which focuses on the individual and his intimate needs, that must take shape in a proper form which is suitable for the new consideration of the human component. Thanks to these considerations, that justify the design choices, Taut declares: «For us, what belongs to the soul must be considered equally logical as the material component and this with the same sensitivity of that. The colour, for example, we associate it to the laws of diurnal brightness, we can work with it to centralize or belittle the contrasts of the buildings with each other depending on the position of the sun and the kind of road, and we distribute it into the interior spaces of the building according to the destination of each room, to refined criteria regarding length, width and height, with respect to the type and disposition of doors and windows, the orientation of these and more – in short: also the colour is used according to functionality, but not without sensitivity, which rests on an completely different basis». (Taut, 1929). According to such a sensitive aim, he designs Dahlewitz in every detail, starting from the landscape scale up to the specific interior layout space scale (Fig. 11); the interior design includes objects as lamps, tables, working areas designed specifically just for this house as unique features (Fig. 12). This attentive design from macro to micro scale epitomizes the absolute control of the space of a real Baumeister of Modernism.

There is a last but not least aspect to be considered about the book Ein Wohnhaus: Taut was also very much engaged in shaping the editorial layout of his books, so as it could express the best possible way of showing his ideas inspired by an holistic approach toward architecture and to an overall vision of the world. Right in Ein Wohnhaus, the German architect brings an important editorial innovation. In the text he uses pictures according to a ‘film language’ of the visual sequence, at that time extremely innovative if thought applied to show the built architecture:

Figure 11.
photographs guide the reader through the building along a specific sequence; to every single figure is repeatedly opposed an images sequence that evokes a path, as the shot of the cine-camera. It is also used the expedient of displaying the same detail on double page, photographed from two different angles in a logic of perceptual kinematics. Despite this innovative use of iconography, photos selected by Taut intend to show architecture in its daily use, without any special and spectacular effects.

5. CONCLUSION

After the brief journey throughout the intimate house of the German master, we wonder about the final message of Taut’s house in Dahlewitz. Whether it has didactic targets, or aims to be a good example of Neues Bauen, sanctioned by the specific theoretical writing Ein Wohnhaus, which is supposed to stigmatize the good principles for the modern living. What we can find out in this project is the ‘fundamental value’ which summarizes all the spatial and emotional values, as described by Gaston Bachelard: «The house, quite obviously, is a privileged entity for a phenomenological study of the intimate values of inside space, provided, of course, that we take it in both its unity and its complexity, and endeavor to integrate all the special values in one fundamental value». (Bachelard, 1994).

It is the German architect himself that shows us this fundamental value, when he states: «The house for living actually is the most immediate realm of human life, its first and last product». (Taut, 1927. It. ed. 1986). Nowadays, it would be easy to copy Taut. But it was not easy to be Taut. He has broken through conventions and changed our notion of what an architectural culture can produce, without taking into consideration the risk of being an outsider within his coeval cultural milieu. In the era of the perfect, pure and white Rationalism, he was using colours without inhibitions, colours as joy of life, as exploration of human reactions for a sympathetic approach toward space. He was obstinate in searching through colour a different spatial ‘line of attack’, contemplating functionalism and the gemütlich at once, for a new comfort strictly related to psychological human necessities as well.

Ludwig Hilberseimer is a witness of Taut’s obstinacy: in his book Berlin architecture of the 20’s (1967) narrates how Taut showed a room painted in dark red to him, Mies van der Rohe and Hugo Häring: «It looked like a butcher’s shop. The atmosphere was aggressive. How could he expect that someone might live in such a room? Taut’s response was that we did not understand anything about colour. We added that he must have been colour-blind…He behaved always according to a motto he borrowed from Scheerbart: ‘Character is merely obstinacy, I move in all directions’». (Hilberseimer, 1967).

Far from the dogmatic verities of the Modernism, Taut would have said: Dahlewitz is just a house. But aware of the deepest meaning of the term: so to say with the Italian philosopher Gianni Vattimo (Casabella, n. 485, Nov 1982), Ein Wohnhaus, the Dahlewitz house for living, is the logic and congruent outcome which shows how living comes before building.

Figure 12.
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