Architectural design education through history of architecture: the lesson of Bruno Zevi

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Abstract
Bruno Zevi, born in 1918 and died in 2000, is one of the most important Italian theorists of architecture. His anti-historical and critical reading of the classical historiography has highlighted a different architectural geography, recognizing the merits of that architecture which had been improperly defined as minor or peripheral. His reading method aims to minimize the contemplative attitude in favour of the involvement and the actualization of the history of architecture, far from a historicist vision that prevents from reading the past as an irreplaceable occasion to understand and deal with the contemporary season of architecture.

In his vision of history as a “methodology of architectural practice” he draws not a philological portrait of the past, but a breeding ground for “extracting the forgotten subversive components”. According to Italo Calvino’s statement, a classic (in art, literature, music, architecture etc.) is something that has never finished saying what it has to say; Bruno Zevi strengthens the concept emphasizing that when good architecture of the past was built, the solutions adopted were most of the times extremely modern, so they are worth to be analysed to understand processes and ideas they subtended, and actualised in contemporaneity. Thus, it is important to learn history of architecture by the methodology of investigating what the masters of the past wanted to achieve rather than the final building just as a successful solution.

It is a complex and engaging method because it is not only about “knowing how to look at architecture” but he sets forth new categories of judgment that enables to learn and judge contemporary architecture and the urban aspects, in an actualization that becomes immediate. It is very useful to unleash oneself, as Zevi suggests, from that compact vision of the historiographical process like the ones handed down to us by the various Giedions, for instance to reconsider the contributions that would make the architectural periods of Countries considered "peripheral", substantial. This useful means of updated reinterpretation can be of educating and stimulating for planning in today’s cities, considering that it is also able to define new aspects and contradictions in the history of so-called “official architecture”.

This paper will focus on the strong interaction suggested by Bruno Zevi between the architectural design education and the history of architecture as methodology of teaching, considering several examples extrapolated from his numerous texts.

Keywords: anti-historical reading, actualization of architectural history, design practice through history

Bruno Zevi, born in 1918 and died in 2000, is one of the most important Italian theorists of architecture. His anti-historical and critical reading of the classical historiography has highlighted both a different architectural geography, recognizing the merits of that architecture which had been improperly defined as minor or peripheral, and the limits of an architectural practice that is "subordinate" to those classicized patterns, that were to lead first to the International Style and to Post-Modern afterwards.
In a critical battle undertaken with extreme lucidity over an entire lifetime dedicated to architecture, he always stressed how classicized patterns annul not only the peculiarities that create a relationship between idea and place, but they also invalidate the very idea of architecture as a space suited to accommodate the social function it was designed for, in a pantomime, a façade, that displays the monotony of repetition and denies the design *from the inside out*. His reading method aims to minimize the contemplative attitude in favour of the involvement and the actualization of the history of architecture, far from a historicist vision that precludes the reading of the past as an irreplaceable occasion to understand and deal with the contemporary season of architecture.

In his vision of history as a *methodology of architectural practice* he draws not a philological portrait of the past, but a breeding ground for *extracting the forgotten subversive components*. It is a complex and engaging method because it is not only about (as one of the titles of his books sounds) *knowing how to look at architecture* - and here he means historicized architecture - but he sets forth new categories of judgment that enables to learn and judge, for instance, the vernacular architecture as well as contemporary architecture, the urban layout of a city but also the landscape which connotes it, in an continuous actualization that each time becomes immediate.

Determined supporter of the organic architecture, in 1945 he founds the APAO, the Association for Organic Architecture, fully cognizant that the Organicism, at its height in the works of Frank Lloyd Wright, has a diachronic pattern that is widely identifiable in architecture, from the origins up to the Modern Movement. Its uniqueness lies in the conception of space, that tends first to think the voids, the inner cavities, and then to conceive the plans and the volumes structured atop them. This type of logic favours to accentuating both micro and macro social spaces - the house, the city - where people live and where the collective theme is more emphasized; thus the spatial inventiveness, according to Zevi’s own definition, focuses on the content rather than the space-containing, in an architectural design where human fruition comes first and foremost. Social spaces to live in are in fact the central and innovative theme of the urban Charter of Machu Picchu of 1977, promoted by Bruno Zevi forty-four years after Le Corbusier’s Charter of Athens: the choice of location was no fortuitous, because, compared with Athens, “Machu Picchu symbolizes the cultural contribution of another world. Athens implied the rationality of Plato and Aristotle, the Enlightenment. Machu Picchu represents everything that escapes the categorical thinking typical of the Enlightenment and is not classifiable as to its logic”\(^1\).

With the word “Enlightenment” Zevi means all those academic stereotypes that the architectural design has submitted itself to for centuries: proportion, assonance, perspective, the idea of the

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“finished” artistic object, etc.; in opposition, the Italian historian proposes a reinterpretation of architecture based on the so-called constants or principles or anti-rules or linguistic invariants that bring new and innovative aspects to light and proving to be an effective tool for the contemporary design. And it is worth to recall them², considering that Zevi extrapolates them like a synthesis experienced by the complex phenomenon of the Modern Movement, starting from William Morris:

1. List of contents and functions.
The shape of the building must fulfil the functions to be accommodated.

2. Asymmetry and dissonance.
Symmetrical design is synonymous with laziness and anti-social attitude. No two identical halves exist in nature. The dissonance enables us to identify individual functions and annuls the monotony.

3. Anti-perspective three-dimensionality.
The observer’s point of view is dynamic, neither longer fixed a priori nor still, as was the case in the Renaissance.

4. Four-dimensional decomposition.
The building box is decomposed into planes that are then reassembled.

5. Projections, structural tensions, membranes.
The contribution of structural engineering has to merge with the architecture without disguising itself.

Fluidity of the various spaces that becomes compressed, dilated, exploded but reassembled.

7. Continuity among buildings, city, landscape, territory.
It is, according to the term coined by Bruno Zevi, “the urban-tecture”, an overall vision where city planning and architecture are fully integrated, one indivisible from the other.

These new categories of judgment are a sort of litmus test for re-reading the whole historiography. Nevertheless, four new architectural seasons, according to Zevi’s analysis, should be included: history of minor buildings, as they are important for the “democratization of history of architecture”; history of city planning, “a grandiose bridge between socio-economic history and art history”; history of the landscape, “the outcome of a symbiosis between agrarian modifications and architectural interventions” and history of the extra-European architectural experience, that has to “break the psychological barrier that encloses history within the European area”. The anti-rules penalize and condemn all the architecture of perfectionism, “ideal” Renaissance theories, Cartesian rigor of the rationalists where there is no true expression of space. In fact, in all of Zevi’s writings the definition

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of space as the primary element that distinguishes architecture is central: "Authentic architecture, Wright teaches, of the future, but also of the present and the past, affects, moulds, invents liveable human space, the ‘space per se’ at the service of the individual and the community. Space is not a mere ingredient of the shaping process of architecture. It is the filter through which all the elements and components derive their architectural legitimacy. A site, a place achieves its architectural identity only when it relates to the status of a space; otherwise it is just a character in search of an author. A plastic form is sculpture; it becomes architecture only if it is involved in the space (...). Space is the void, the artistically animated cavity, the negativity of the building transformed into the most poignant and creative action"\(^3\).

Experiencing architectural space, whose first character – according to Zevi’s definition – is its social contents, man connotes every single part of architecture and materializes the semantics attributed to it by whom conceived it. The concept of counter-history coined by Zevi is the means to proceed for a rigorous interpretation of architecture from modern to ancient perspective rather than the contrary, precisely because doing contemporary architecture necessitates a backwards analysis but through contemporary eyes, in so far one can perceive targeted and critical angles. The historian emphasizes: "How many books on architecture exist in which this current awareness of history of architecture really vibrates, in which the author address to the Egyptian temple or the monuments of Mycenae with an interest matured in the light of consciousness of modern architecture? Who founds an aesthetic of architecture, and therefore a method of judging the monuments of the past, according to the contributions of the functionalist movement of organic architecture?"\(^4\).

Such is the case, for example, of the hymn to the Zero Degree of the prehistoric era: caves are architectural spatialities intrinsically different from one other, autonomous, free from models, while with the beginning of the history, the typology will become dominant, and only great architectural personalities - among them Zevi includes Michelangelo, Borromini, of course Wright and few others - will have the courage to reject it. Using a paradox he emphasizes the fact that, from a linguistic point of view, modern man, either consciously or unconsciously, strives to bring back the spatiality of prehistoric caves; it is interesting to note in them, before what there is, all that there is not, in other words everything that is negative, that is superstructure, will be accumulated over the centuries to come.

Thus in the pre-historic informality of the caves, the Italian historian recognizes those features that are strictly tied to that obstinate research on contemporary spatiality: the voids, the crevices and

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shelters provide a continuity of individual episodes which, taken in their complexity, offer a multiple and community vision. In addition:

"The cave has no façade. It feels no need to shut itself behind a wall; it opens wide to the outside. Today the aim is to open the "inside" to the "outside", maybe shielding it with transparent plates; [the cave] does not distinguish among floors, walls and ceilings. It enhances the continuity that enfolds the space, without trying to box it in (...) it does not standardize the lights. It captures them, filters them, possess them, it handles them refracting in every direction on the rough boulders (...); triumphs in their thickness. Everywhere we find cracks, holes, cuts and lacerations, obsessive gradients. You go up and you come down, you never walk on a flat surface. There are no right angles like in the dull academic purisms; it has no volume. It is not set on the ground, it belongs to it and it is camouflaged in it. Wright once warned: not on the ground but of the ground"⁵.

Of course, the semantic value of the cave also includes the 'unfinished', a concept that Bruno Zevi discovers primarily in the genius of Michelangelo as a sort of defeat of the form when the great Italian genius, aware of the crisis and the subsequent fading of the Renaissance, anticipates and in some of his projects even exceeds the Baroque, developing an architectural language free from any linguistic coding affirmed during the Renaissance.

Coming to specific aspects related to Zevi’s methodology teaching, he considers absolutely necessary to learn judging architecture through the critical filter of art history; the continuous poiesis of the art realization guarantees a reading and a judgement of architecture free from restrictive constraints and prejudices. Indeed, the historian argues: "Clearing the ground from historical mythology and taboo, adhering to art in its doing, reading with the eyes of living artists in the past work, judging Borromini with the same lack of scruples, with the same confidence with which Neutra is judged, it means not only to open the road to modern architecture, but also to that of the past centuries"⁶.

To the aim of an architectural reading able to actualise the spatial concepts of the buildings of any time, Zevi furnishes the students both theoretical categories of judgment (for instance the seven invariants) but also an extremely functional method, in order to achieve a deep knowledge on academic level: his didactic indeed is based on the historical comprehension of the monument through the graphic restitution, the architectural survey and the realisation of models. During his teaching years, professor Zevi invites the students also to do documental and bibliographical research on the architectural monuments, a useful practice also for creating a specific archive of the faculty. He wishes to stimulate a strong critical approach in the students, but also to be sure that

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they achieve a complete knowledge of protagonists, places and dates of architectural history. Inviting the students to draw and realise models he forces them to have a direct experience of measures, plan layouts, sequence of spaces rather than focusing on stylistic decoration.

"The models of the Medici Chapel, the Laurentian Library, the fortifications of Florence, the Campidoglio, San Pietro, the Sforza Chapel in Santa Maria Maggiore, to Santa Maria degli Angeli, translate Michelangelo’s works in signs, strength lines, corrugated walls, dynamics suggestion, spatial patterns, volumetric built up area and informal concretions. Especially the profiles of the walls which contain and define the living-spaces become sufficiently abstract traces on which setting new layout solutions, altering of course the recognisability of the model".

Furthermore, he seeks to reify an operative critic which has to be graphic and tri-dimensional in order to lead the student to thinking architectonically. Zevi encourages joining the courses of History of Architecture and Architectural Design, thus the students can have an immediate double reading of the architectural issues. Zevi stresses this point: "The school can offer at least in the link, rather in the fusion between courses of history and architectural design, a substitute of the experience that every young person would gain if he could attend the ateliers of the old and modern masters to assimilate the method of their making".

Therefore, history and design have a mutual relationship and each one is strictly necessary to the other. History of architecture, using the methodology of understanding the design process, epitomizes what the masters of the past wanted to achieve rather than explaining just the final building as a successful solution; architectural design instead need a continuous critical revision through the lesson of the history, for developing right approaches and interpretations in the light of contemporary issues. Zevi emphasizes the necessity for the architects of the historical studies, in case of lack of them “The university would fall to the level of a professional technical school, in addition not allowing the student to become an architect in the more cultured and noble sense of the word, less than ever a modern architect”.

As part of the militant criticism, since the beginning of his career as a critic Zevi fights the concept of teaching history as un-historical teaching of styles and explains that for this reason Walter Gropius excluded it bravely from the Bauhaus courses. A constructive reading of history of architecture must

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rather necessarily deal always with the contemporary art doing. Zevi does not grant any doubt about the importance of the role of the professor capable of having a participatory attitude relative to contemporaneity: "A comparative analysis of several European and American schools of architecture provides the following result: when the history of architecture is taught by modern enthusiastic professors, participating the contemporary doing, architects who derive from them are more informed, articulated and thoughtful; when one stays in the kind of academic lecturing, they are less cultured, more primitive"¹⁰.

Going back to Zevi’s architectural theory, it explores the existence of a reality of the form that is totally independent from the stylistic point of view, signs-less; it refers to the Zero Degree theorized by Roland Barthes. The French semiologist, in the last chapter of the broad essay Mythologies, states that “in the end, only the Zero Degree can resist the myth”¹¹. Zevi notes how perhaps the Zero Degree released from all bonds to a state of a pre-ordained language and no longer at the service of a triumphant ideology is itself a myth¹². Stemming from this are those authentically spontaneous buildings that do not take into account any of these rigid compositional features like symmetry, geometry, the static and controlled conception of the space that imposes a precise perception and fruition, the light canonically designed to enter from apertures that are all symmetrically identical. Thinking of a building according to the Zero Degree leads rather to an inventive concept of space, light, form, itineraries to be followed. Zevi affirms:

“All the great architects, in one period or another of their research, long to find the mythological birth point of the building. (...) Perhaps the symbols are unavoidable. But they are either inherent to the place, relative to the spaces, volumes, and specific tools of the architecture, or they are merely decorative and artificial, nauseating like in the post-modernist works. John Johansen attempted to extract from a ‘Dictionary of Symbols’ those which, in his opinion, are the most significant in architecture: the cave (return to pre-natal state), the house (female warehouse of wisdom), the forest (mystery, the unknown of trees, columns or mega-structures); the labyrinth (adventure, unawareness of success or failure), the tower (aspiration beyond the norm), and the rocket (escape from the ground). He is confident that these symbols can persuade architects to neglect their ‘personal indulgences, exotic references and senseless decoration’”¹³.

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¹³ B. Zevi, ibidem, p. 171.
The symbols identified by Johansen fit the Zero Degree and encourage the creation of the definition of good architecture as devoid of all those pre-conceived models – classicism, eclecticism, nostalgic folklore, cosmic allegories and totemic symbols as defined by Zevi – which, in the complexity of the scenario city-environment-contemporary landscape, can lead one to reflect on the concrete quality of architecture or on what Zevi defines, in a succeeded content portmanteau of etymology, urban-tecture which is urban plus architecture conceived as a unitary element characterising the landscape scale.

In his essay The seven myths of architecture, 1984, the historian places questions that nowadays appear as prophesy. He writes in facts: “If the metropolises we know today are destined to disappear, what kind of community, or city will we have, if we have one? And what architecture is suited to them? Those are the questions that require prophetic imagination, utopian fantasy and new myths. Our culture seems to be based on old myths and on the repetition of the same old errors. We need to invent new risks. Otherwise, just like before, city planning and architecture will become paid evasion, simple shelters, escape for the loss of old, real or supposed mythological values”\(^{14}\).

An attempt at a response can be sought once again by rereading historiography, especially the Twentieth Century. The persistence of Western-centric, Euro-centric vision has indeed led to the omission, to a lack of knowledge of how to understand the architectural literature discoverable in some other geography. It is very useful to unleash oneself, as Zevi suggests, from that compact vision of the historiographical process like the ones handed down by the various Giedions, to reconsider the contributions that would make the architectural periods of Countries considered peripheral, substantial. This useful tool of actualised reinterpretation can be of educating and stimulating for planning in these days, considering how it can define new aspects and contradictions in the history of so-called official architecture. Giving some examples, starting even only with renowned figures, they pluralize in the analysis of events that are often overlooked: what was the impact of the great Bauhaus exhibition, organized in 1922 in Calcutta? And what is the legacy of Bruno Taut in Turkey, where the famous architect of the Neues Bauen taught and designed far from the stable constructive innovation of Berlin during the Weimar Republic? In the light of a possible revision of field, of geography, what really is Modernism? In the rethinking process of the contemporary historians, they deconstruct and relativize the terminology that characterizes it, to make room for more complex concepts like duality, displacement, hybridity, alternative modernity, bi-directional process, peripheral modernism. It can sure improve the methodology, by relativizing those concepts based on the otherness.

In the short but dense writing Architectural pieces for the Third Millennium, Zevi considers the values that the Modern Movement has bequeathed to the XXI century, as a basic lexicon to be used in contemporary architectural practice:

"The modern movement hands the Twenty-First Century in the results of a battle that defeated academic canons, proportion, assonance, the rhythm of the "octave", perspective, the idea of the 'finished' and perfectly executed consoling artistic object. The de-constructivists are putting on trial those architects intent on producing pure forms, based on the inviolability of elementary geometrical shapes, uncontaminated, emblems of stability, harmony, safety, comfort, order, unity. In their works, from Eisenman to Gehry to Koolhaas and Libeskind, architecture is expressly an agent for instability, disharmony, insecurity, discomfort, disorder and conflict. It rejects the ideologies of the golden ratio, the immutable "scientific" establishment, eternal and universal, to defend the rights of a "disturbed planning" to fit reality. Impure forms, crooked geometry, no right angles, diagonals, twisted volumes, concave-convex surfaces, patchworks of etymologies and motifs. The architect no longer pursues super-structural abstract values: he speaks in prose, accumulates re-semantised terms, avoids all forms of synthesis, and achieves a full poetry, persuasive, and intrinsic to things."

To reach this target, Zevi attributes a fundamental role to Expressionism, which seemed to have faded by 1924, defeated by a triumphant Rationalism, but instead has remained as an incorruptible fil rouge throughout the whole Twentieth Century: through the pioneer Gaudi first, then in the historical period of Mendelsohn, Poelzig, Taut and Scharoun, in Alvar Aalto as a response to the International Style, up to what Zevi calls the blasphemous scream of Rochamp where Le Corbusier smashes principles, grammar and syntax of the rationalists, and then with Saarinen, Michelucci and still others. “Expressionism engages the entire century resulting in that 'action-architecture' that qualifies our working as well.”

Frank Lloyd Wright remains for Zevi the chief deity of modernity, the depository of all that architectural wisdom from which to draw the most meaningful and lasting lesson. Zevi states:

"In the process of disengagement from the doctrine of the International Style, many fragments of Wright’s lesson were absorbed. From a richer perception of aesthetic signs to the discovery of popular subcultures, from the hypothesis of an "action architecture" qualified by the uncertainty principle to questions of personalization and pluralism, from numerous and symptomatic Mannerisms to a taste

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for randomness and the phenomena of de-planning, de-technologism, de-architecture, several direct or indirect suggestions of Wright’s have been assimilated\textsuperscript{17}.

According to one of Zevi's latest definitions, modernity is the everyday vocation of turning a crisis into a value\textsuperscript{18}. Values capable of leading to an architectural lexicon of substance, capable of conceiving narrative spaces that are able to relate, contain and stimulate the social content for which they are designed. Thus the elements of the crisis of the state of being contemporary - consumption of resources, overpopulation, climate change, etc. - in Zevian terms become values of modern architectural design, stimulating motivations of access to a new concept of architecture. “\textit{I do not hear the music I write. I write in order to hear the music I haven’t yet heard}”\textsuperscript{19} declared John Cage. A prophesy for the architecture of today.

List of References


B. Zevi, \textit{La chiesa del duemila}, talk gave at Lateranense University, Rome October 22 1996.


\textsuperscript{18} B. Zevi, \textit{La chiesa del duemila}, talk delivered at Lateranense University, Rome October 22 1996.