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Carolina Coelho

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Debriefing¹ the concept of *experience*: from related study fields to architecture

The ideal of architects is building with precision to support the unpredictability of human life. The objective is dignity - to sustain creativity. Buildings are the instruments of life. (Mendes da Rocha, 2006)

- 1 The interconnection between space and the body is profoundly embedded in architecture and is understated when describing, conceiving and assessing its spatial outcome. Spatial features have the ability to be a stage for life to evolve, but also to constrain or potentiate the actions that they shelter, working as a catalyst of the life within, and as a facilitator of experiences.
- 2 Conceptually, *experience* is most related to sensory fruition, an ephemeral action or reaction that is triggered by a particular context. According to the authors of reference, it can be both intellectual - according to Plato or René Descartes; or sensitive - according to John Locke or David Hume. In his work *Critique of Pure Reason* (1781), Immanuel Kant acknowledges perception as a gathering of these two approaches - intellectual and sensory, implying that a certain object triggers a sensitive experience in the self, that is later processed by our structures of understating, producing an intellectual interpretation.
- 3 Commonly, it is regarded as an inner feeling that is perceived by each individual according to his personal filters of interpretation, cultural and social dimension; but it

can also be acknowledged as a shared feeling by a community with a common social denominator.

- 4 As a matter of fact, the relation between the spatial features and the inhabitant's experience of space has been interpreted by different and most diverse approaches, from the study fields of literature, art or philosophy, to several studies within architecture itself. From the well-known quote by William Churchill "We shape our buildings; thereafter they shape us"² (1944); to Bill Hillier and Julienne Hanson's work on *The Social Logic of Space* (1984) where it is stated "Society must be described in terms of its intrinsic spatiality; space must be described in terms of its intrinsic sociality" (p. 26). Or even to Thomas Markus's *Buildings and Power* (1993), where he supports that different buildings and respective features can induce asymmetries in the power holding and thus in society; these approaches all center around the bond between space and behaviour.
- 5 Thus, while conceiving experience as the first step in the uptake of the exterior stimuli, it becomes relevant to understand how the individual perceives and understands it. Within another context, Hans Robert Jauss (1977) develops for literature the *reception theory*. According to this theory there are three poles dynamically related: production, reception and communication. The reading is always considered to be production and the reader a creator of sense. Thus, the literary work has both a meaning implied by the work itself and another defined by a given subject. Also from the School of Konstanz, Hans-Georg Gadamer (1976) formulates the concept of *hermeneutics*, which he brings into the aesthetic of the artwork, assuming that it also enables an interaction between production, reception and communication.
- 6 Previously to this literary context, some authors stood out as precursors of the relevance given to the reader. In fact, both Roland Barthes with his *The Death of the Author* (1968) and Walter Benjamin's *The Author as Producer* (1937) had already assumed the role of the reader as a conceiver of an individual and situated narrative, questioning the concept of authorship. Later, Henri Lefebvre (1974) develops the relationship between abstract and concrete space, transposable to the dichotomy between the space envisioned by the architect and lived in by the inhabitant.
- 7 Also in the artistic field, the artwork can actively engage the spectators, either intellectually and/or sensory, and its meaning can also be fulfilled by the individual's interpretation. This is clear in Marcel Duchamp's ready-mades, whose conceptual production is intellectually construed by each individual. With a more sensory dimension, Joseph Beuy's *Olivestone* (1984) actively triggers the spectators' senses, due to the use of oil in a stone vat that slowly disseminates its scent into the air. Another artistic possibility is engaging both mental and sensory dimensions, like Jenny Holzer's LED signs, which entice our body with the colours, the lettering and the light, and also our minds with their meaning.
- 8 Paralleling this to architecture, both the fruition and appropriation of space made by the inhabitants provide it with features that complete its semantic and physical definition. And although architecture and art carry specific values and are perceived at different functional, aesthetical and environmental dimensions, they share the concept of *experience*, embedded in real time and actual use. Particularly, for architecture, the feedback of spatial fruition is implicit in the way people move, act and enjoy space. Quoting Luis Barragán:

The sense of all the beautiful things created, resides both in the soul of the beholder as in the soul of those who produced it. Yes, it is also the viewer who pays to the

beautiful thing its myriad meanings, and makes it wonderful for us, putting it into a new relationship with the time [...] (Barragán, 1955, p. 41)⁹

- 9 Thus, the experience provided does not emanate directly from the space, but it is constructed by the inhabitant that, through his active and creative appropriation, changes it, defines and completes it, acknowledging him as a producer and a creator of meaning, rather than a mere spectator or an “empty vessel” (Hill, 1998, p. 2). Jonathan Hill goes further, stating that “Architecture is made by use and by design.” (Hill, 2003, p. 148), implying that if the inhabitant changes space and makes it his own by living in it and moulding it to his needs, then, he is also its author, as an “illegal architect” (p. 131).
- 10 However, for this to happen the *living experience* should be a design concern from the brief, and individual appropriation should be a possibility envisioned from the initial sketch stage. *Experience*, as opposed to the more analytical concepts of function or use value, embodies a broader range of intangibles and potential behaviours to take place, it allows ownership and individual spatial fruition. Conversely, in Modernist architecture - from Grete Schütte-Lihotzky 1927's *Frankfurt Kitchen* to Le Corbusier's *Unité d'Habitation* in Marseille (1947-1952) - if architecture always wanted to improve the living conditions of the people, it also imposed lifestyles. The individuality expressed in this appropriation was a neglected variable in modernist principles, when in 1928 the declaration of La Sarraz, the final act of the first CIAM, would express the desire to find solutions for the modern man defined as a stereotype, where the variants of each one did not enter in the equation of space. Later, in the 1960's, the voice of the people was becoming heard, experts worked along with the inhabitants in order to fully fulfil their needs and comprise with individual specificities. As activist Jane Jacobs claimed: “Cities have the capability of providing something for everybody, only because, and only when, they are created for everybody.” (Jacobs, 1961, 1993, p. 312).
- 11 Contemporary of these concerns, Edward T. Hall's *proxemic studies* (Hall, 1966, 1990) revolve around the relation between space and people and the relevance of the receptors such as: eyes, ears, nose (distance receptors) and touch from the skin, membranes and muscles (immediate receptors) (p. 41) lined by cultural identities, for the perception of space:

One of my objectives has been to communicate to architects that the spatial experience is not just visual, but *multisensory*. [...] No matter what happens in the world of human beings, it happens in a spatial setting, and the design of that setting has a deep and persisting influence on the people in that setting. (p. xi)
- 12 All in all, the mentioned authors and lines of thought, despite their differences in time, method and understanding, illustrate the prominence of this matter for both academia and the practice. Often associated with the well-being of people, this has been and continues to be addressed and valued today, as a relevant design concern. The following chapter will then demonstrate it to be significant to the design and the envisioning of space by the architect, and the subsequent one for the space's occupancy.

Conceiving the *living experience* in the design: from the traditional to the most recent forms of engagement

Architecture consists of two elements. An intellectual element in that we have to create a space that is logical and clear, that has a logical or intellectual order. At the same time, you have to use your senses to imbue the space with life. These are the

two main aspects of creating architectural space. One is practical and theoretical; the other is sensory and intuitive... (Ando, 2002)⁴

- 13 The acknowledgment of the *living experience* as a design content and the relevance of the sensory aspects in creating an ambiance is a matter addressed by different design approaches today. And despite the divergence in each author's approach, from Steen Eiler Rasmussen's *Experiencing Architecture* (1962), to Jonathan Hill's *Occupying Architecture* (1998), or Robert McCarter & Juhani Pallasmaa *Understanding Architecture* (2012), they all acknowledge the bond between experience and architecture.
- 14 This is also taken on by Bernard Tschumi, who states that spaces are regarded not just by their physicality defined by orthographic representations of the built form, but also by the intellectual and sensory experience(s) enabled by the material dimension of space: "Architecture is defined by the actions it witnesses as much as by the enclosure of its walls." (Tschumi, 1994, p. 100).
- 15 Experience is also deeply discussed in Juhani Pallasmaa's extensive work on phenomenology, recognizing space as a sensorial catalyst, beyond measurability. The fact that Juhani Pallasmaa practices what Steven Holl considers to be "the unanalysable architecture of the senses" (Holl, 2005, p.7), coincides with the well-known quote by Louis Kahn on the immeasurability of architecture: "A great building must begin with the unmeasurable, must go through measurable means when it is being designed and in the end must be *unmeasurable*." (Kahn, 1961, p. 149).
- 16 Interestingly, whereas phenomenology is considered by Juhani Pallasmaa's outlook to be based on a non-generalizable relation between architecture and the individual; Ian Hacking's approach on philosophy of science describes phenomenon lined by a more analytical approach, considering it to be a regular, collective and definite happening:

My use of the word "phenomenon" is like that of the physicists. It must be kept as separate as possible from the philosophers' phenomenism, phenomenology and private, fleeting, sense-data. A phenomenon, for me, is something public, regular, possibly law-like, but perhaps exceptional. (Hacking, 1983, p. 222).
- 17 For Juhani Pallasmaa, "significant architecture" (Pallasmaa, 2005, p. 11) or "life-enhancing" architecture (Goethe *apud* Pallasmaa, 2005, p. 44) engages the inhabitant(s) by all the senses and is not limited to the "ocular bias" (Pallasmaa, 2005, p. 30). Adding to the fact that space is lived in and not only looked at, Gaston Bachelard identifies it as "the polyphony of the senses" (Bachelard, 1960, p. 6⁵), that is perceived by the body and thought by the mind, in a whole, articulated process.
- 18 Nevertheless, sight is often associated with the instruments of design - from the more traditional ones like light, colour or texture, to the more state-of-the-art ones - whose goal overall is to actively engage individuals. The vibrant colours applied by Luis Barragán, or Carlo Aymonino define their spaces and provide them with a particular identity, as it happens in their respective works as *Casa Gilardi* (Mexico City, 1976) and *Gallaratese* (Milan, 1967-1974). Also recalling Giorgio De Chirico's paintings, the deep contrasts between light and shadow like in Aldo Rossi's *Gallaratese* (Milan, 1969-1973), remind us of the significance of light to space, following Le Corbusier's *dictum*: "Architecture is the masterly, correct and magnificent play of masses brought together in light" (Corbusier, 1923, 1960, p. 31).
- 19 Matter and touch are also a remarkable way of arousing the senses, achieved by the materials chosen, the techniques applied for their carving, and the outcome of their assemblages, whose variations contribute to a specific ambiance. In Sigurd Lewerentz's *St.*

Petri Church (Klippan, 1963) we are involved by the brickwork, and it is also the brickwork in Rafael Moneo's *National Museum of Roman Art* (Merida, 1986) that conveys to the visitors a sense of being in an ancient roman republican town.

- 20 This is deeply embraced by Peter Zumthor, for whom the materiality assumes a crucial role in architecture: "My idea of architecture is always very physical. I like materials that wear, keep, and have resonance." (Zumthor *In Rauterberg*, 2008, 2012, p. 154). In his *Brother Klaus Field Chapel* (Mechernich, 2007) he employs the texture of the burnt wood within the exposed concrete of the inside, arousing touch, texture and matter, that, along with the light from the oculus, dazzle its visitors.
- 21 Moreover, also scent and sound trigger sensory fruition. Like the powerful and almost mysterious scents of the Spice Market in Istanbul (Illustration 1), or the feeling of humidity and the sound of dripping water on the Byzantine Basilica Cistern, experience is enhanced by scent, sound and touch, like the environment produced by the oil in Joseph Beuys's *Olivestone*.

Illustration 1: Spice Market in Istanbul



An environment with intense and vibrant colours and scents.

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- 22 In the works mentioned earlier space engages the inhabitants by relying on the timeless and acknowledged tools for architectural design and representation, of mechanical and analogic nature. Nevertheless, space can also be engaging by a wider realm of instruments brought by technological and digital developments that enable changeability, interactivity and user-involvement in the design.
- 23 If the earlier spaces enable an empathic response, the latter can be considered active and reactive, interactive and dynamic, and overall impactful for the individual, broadening

the paradigm for envisioning, designing and materializing multi-sensory environments and the *living experience* in space.

- 24 In fact, colour and light mentioned earlier can be used technologically, like in Toyo Ito's *Wind Tower* (Yokohama, 1986), or Jean Nouvel's *Agbar Tower* (Barcelona, 2005):

For me, light is matter, and light is a material, a basic material. Once you understand how light varies, and varies our perceptions, your architectural vocabulary is immediately extended in ways classical architecture never thought of. (Nouvel *In* Nouvel & Morgan, 1998, p. 180)

- 25 Also, installations designed by Diller Scofidio + Renfro resort to a multitude of devices to achieve a multi-sensory environment where movement, sound and touch become central to space, shaking the boundaries of the architectural design. The circular movements of the “joyful trees” in *Arbores Laetae* (Liverpool Biennial, 2008) (Illustration 2) blur the definition of natural and built dimensions, dynamically shifting the subjects' physical context. Furthermore, in *Blur Building* (Yverdon-les-Bains, 2002) as the mist grew, the moisture became more intense, the sound of the water more clear and the temperature lower, ultimately assuming it as “an architecture of atmosphere” (Diller Scofidio + Renfro, 2003, p. 118).

Illustration 2: *Arbores Laetae* (Liverpool Biennial, 2008) by Diller Scofidio + Renfro



ONE OF THE TREES ROTATING ON A TURNTABLE.

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- 26 The environments created by these architects are a clear example of the contemporary possibilities for envisioning a sensory and dynamic architecture, which questions the traditional boundaries of architecture as a built and static object, stretches its materials and techniques towards other fields, and overall shapes other dimensions for experience in space and the way to acknowledge and design it:

It is odd, to say the least, that D + S have been reproached for not working as professionals, for “not building,” when the whole body of their work—including “projects,” a term which itself requires a closer look—is admirably “built,” down to the smallest “details” [...] cutting and carving into the very flesh of architecture, revealing the many incarnations and incorporations that have constituted its matter and spirit over the centuries. (Teyssot, 1994, p. 8)

- 27 By and large, the referred projects provide a broad outlook on the possible ways of valuing experience as a design content, by resorting to different materials and approaches, but utterly sharing their deep connection with their inhabitants.

Assessing the *living experience* throughout the appropriation of space: the case study of an artistic school

Responsive schools do not all look alike. To assess a school's quality it is necessary to observe it in action. (Sanoff, 2001, p. 9)

- 28 The assessment of the *living experience* in space is the ultimate validation to test the coincidence between what the architect envisioned in the design as *cosa mentale*, and how the built space is actually fulfilling this conception, ultimately understanding how the concept is translated into the practice, and whether expected and effective spatial experience overlap.
- 29 Overall, experience goes beyond the built object translated onto plans, sections, or any particular drawing, and naturally the concepts of scale, dimension, materiality or function do not fully describe it. The traditional methods for communicating and assessing the *living experience* can thus be widened, particularly in the case of the mentioned projects, due to their materialization by new tools and by blurred design concepts, wavering between the natural and the virtual, the digital and the massive, or the conceptual and the real. Therefore, the related design concepts and design processes have to be rethought, acknowledging a broader meaning for the spatial experience, its relevance for the design, and the ways to envision, communicate and assess it.
- 30 Nonetheless, this does not imply a questioning of the timeless design contents or even the professionals' decisions, but provides them with further information that contributes to make the final decisions eventually more robust and comprehensive.
- 31 Actually, if the search for a better building performance was one of the aims of the modern functionalism, the relevance of the inhabitants' well-being in space constituted one the revisions assumed by some of the modern architects, in search of a broader meaning to the concept, as Alvar Aalto sustained:
- To make architecture more human means better architecture, and it means a functionalism much larger than the merely technical one. This goal can be accomplished only by architectural methods – by the creation and combination of different technical things in such a way that they will provide for the human being the most harmonious life. (Aalto, 1940, p. 102–103)
- 32 The fact that Alvar Aalto studied the individual and used that information to conceive the design solutions for the Paimio's Sanatorium (Paimio, 1932), would better respond to the patients' needs and would potentiate their mental and physical well-being in space. By drawing together functional and emotional concerns, he acknowledged and valued the

human condition and the effective spatial experience to essentially “humanize architecture”.

- 33 Since the 1960s this issue became a central design concern, as mentioned in chapter 1, resulting in the emergence of several user-oriented design methodologies. Despite the wide realm of techniques included in these studies, their common outcome on how the space is responding to people and how people are engaged to space, can provide information to rethink that building in particular and its future rehabilitation interventions. But it can also, in more general terms, provide design guidelines for buildings with similar design briefs. This can be transferable as actionable knowledge from real life scenarios to the design as a feedforward technique. In this way, appropriation and concept are linked in a cyclical process that gathers inhabitants and professionals, research and the practice. As Robin Evans puts it: “Action and intention are inextricably linked” (Evans, 1997, p. 16-17).
- 34 User Research Studies (Fawcett, 1995), by focusing on the actual *living experience* in real space and time, aim to describe and assess the space’s potential for the inhabitants’ appropriation and for fulfilling the functional, aesthetical and environmental needs and wants suggested in the initial brief. Consequently, this article lies within a current research focused on the bond between the space conceived by the architect and the spatial experience it holds, acknowledging the relevance of User Research Studies to assess the depth of this bond and its relevance as a post-design contribution for the practice.
- 35 This research, currently still under development, is applied to school buildings because they represent a clear example of a space whose features are crucial for the definition of the *living experience*. As mentioned in chapter 1, they represent a facilitator of experiences and specifically of the learning process, as shown by several authors like Diana Oblinger (2006) or George Kuh, Jillian Kinzie, Jennifer Buckley et al. (2006), and are often considered an “educational tool” (Heitor, 2005). In fact, environmental conditions like insulation, heating, lighting and soundproofing, along with spatial features such as classroom dimensions and configuration, spatial layout or global integration, are proven design variables that affect the social behaviour of the students and the learning process:
[...] the physical setting, in addition to more familiar psychological and social variables, has both direct and mediated affects on prosocial and achievement outcomes, the conventional bottom-line quantitative measures of educational performance. (Moore & Lackney, 1994, p. 13)
- 36 This bears particular relevance for Portugal, involved in a basic and secondary school rehabilitation process since 2007, whose aim is to endow schools with more current spatial solutions that respond and potentiate today’s learning context, lined by a more creative and critical student profile, as well as by the relevance of informal and non-pedagogical spaces, and also with active learning environments in which communication and socialization are vehicles for learning, along with today’s pedagogical practices endorsed by information technologies. Consequently, if the *learning experience* in school space today is conceived differently, then the design of the school space has possibly to be rethought.
- 37 The aim of the referred research is to develop an original methodology to identify the spatial experiences in a school building, to assess the building’s potential to bear other experiences, and to point out the management or contextual constraints that can both hinder or potentiate them. Ultimately, recognizing the spatial features that can be

considered in the design, which enable a broader range of activities to happen in that space, enhancing the building's potential as a facilitator of different actions and as an active catalyst of knowledge, for a longer period of time and a wider community.

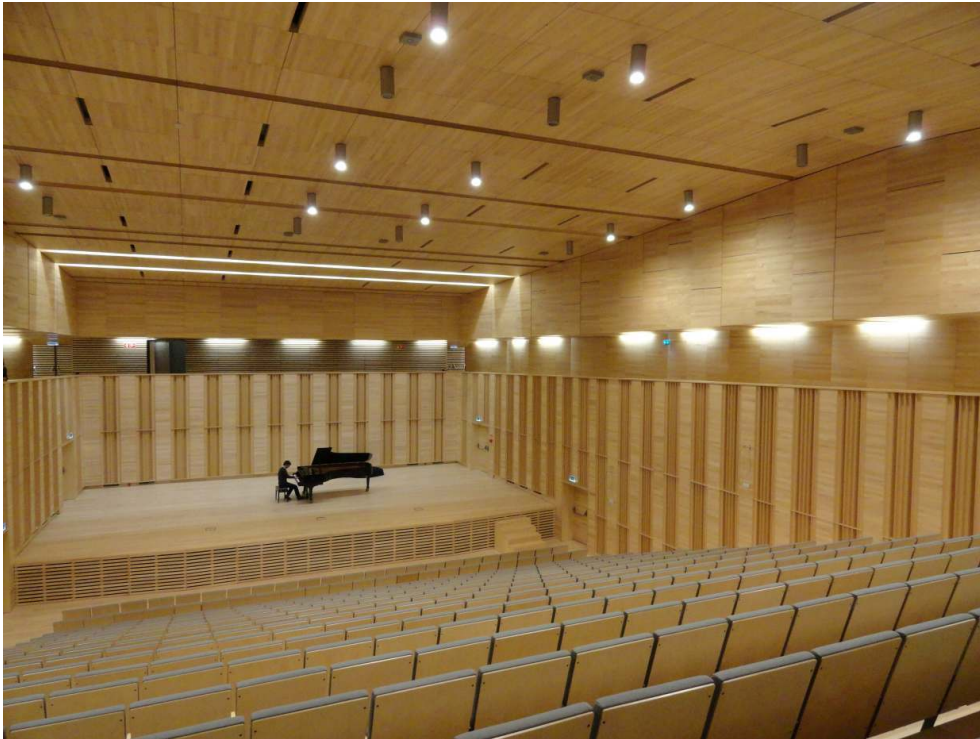
- 38 Assuming that each school enables different spatial experiences and in order to accurately define this methodology, the current research is developed within a particular case study of a school that holds both artistic and regular teaching, assuming its specificities and acknowledging their relevance for the application of the proposed methodology.
- 39 The main case study of this research is Quinta das Flores School in Coimbra, Portugal. This school was built in 1968 as a Basic and Secondary school, and has undergone a process of rehabilitation in 2008-2009 by the architect José Paulo dos Santos, which joined the music and dance teaching with the regular teaching that already took place there (Illustrations 3 and 4).

Illustration 3: Quinta das Flores School in Coimbra, Portugal. The new façade provided by the rehabilitation in 2009



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Illustration 4: Quinta das Flores School in Coimbra, Portugal. The auditorium



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- 40 Along with this curricular and spatial change, the school's activities and inhabitants were visibly enlarged and diversified. The school community (internal users) now comprises students of the artistic teaching, of the regular teaching and students of both regimes, besides all the teachers and staff. Moreover, the school now has also the ability to engage a broader range of external users, who attend it for occasional public performances in the auditorium, or that recurrently use the school spaces like general classrooms, the library, the gymnasium or the cafeteria for after work activities arranged by associations that have protocols with the school board.
- 41 In addition, this artistic school has the specificity to bestow on the entire school environment a particular sensory experience, because music is not restricted by the boundaries of the formal classroom spaces (Illustration 5), but is also played in the corridors, outside spaces and in all informal spaces (Illustration 6), truly acknowledgeable as active and creative environments. It is also enjoyed transversally, not only by the music students but by all the community, promoting emotional and sensory experience as a vehicle for peer interaction and knowledge transfers amongst the students. Because the *living experience* here bears a particular sensory and bodily dimension, it represents Gaston Bachelard's "polyphony of the senses" (Bachelard, 1960, p. 6), identified in chapter 2, by means of informal performances from the students who take ownership of the space with artistic casual displays of all types.

Illustration 5: Quinta das Flores School in Coimbra, Portugal. A formal dance studio



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Illustration 6: Quinta das Flores School in Coimbra, Portugal. The common hall



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- 42 Therefore, the study of the spatial experience in this particular school, with its cross-curricular educational model, represents a more complex case study, that stretches the boundaries of the *living experience* from an ordinary school into a multi-layered sensory dimension, which influences the social, pedagogical and cognitive aspects of the students' lives.
- 43 Intellectual experiences (defined in chapter 1), such as Plato and René Descartes described them, are often triggered in this building by the prominence of light, texture and matter, most present in the school's hall and auditorium, as other projects exemplified in chapter 2. Sensory experiences, such as John Locke or David Hume described them, are prominent in an artistic school, since any form of artistic communication triggers the senses in a multi-sensory experience that engages the human being, as Edward T. Hall considered. Therefore, because this school acts as "life-enhancing" example (Goethe *apud* Pallasmaa, 2005, p. 44), as outlined in chapter 2, it has the ability to arouse the senses in order to be an active learning, cultural and social environment for the whole community.
- 44 In order to identify these experiences, the spaces in which they happen and the individuals to whom they are addressed, this research resorts to User Research Studies. These studies provide a body of knowledge redirected towards the systematic development of the design of today's school buildings, capable of informing on the actual space use and the outcome of a specific design solution and its impact on student achievement, the school community's well-being in space, and the potentiation of the learning process overall. These were applied to school buildings by authors like Peter Lippman (2010) in *Evidence-Based Design of Elementary and Secondary Schools* and by Henry Sanoff (2001) in *School Building Assessment Methods*.
- 45 The choice amongst these studies will reflect the nature of the design and the features of that experience, and it also depends on how the experience is perceived by the user(s). It also reflects the kinds of inputs this assessment will provide and the purpose of the research - whether to present generalized information on a particular brief, or a more insightful description on an individual report to space.
- 46 Analytical and probabilistic methods provide collective data on how a group perceives a particular space, based on regularities and patterns of use. To such purposes, it can be resorted to charts and schedules of each activity and the analysis of people's flows and densities in space. These outcomes present generalized knowledge, often used to assess a functional purpose - the *vitruvian utilitas* - in order to test spatial efficiency. Within this approach, William Fawcett's use of mathematical charts to analyse the correlation between school spaces and activities, has led him to an adaptability model for buildings aimed at providing a "precise numerical value" (Fawcett, 1978, p. 55) by an algebraic and combinatorial formulation.
- 47 However, the probabilistic and analytical nature of this approach can be considered narrow, because it focuses on the most probable states, and not on all the possible dimensions that architecture bears. Despite recognizing its potential to match spatial attributes with activities' needs that can generically be applied to every case study through a rational matrix, it obliterates cultural specificities and lacks qualitative observations. So, the research under development aims at transposing an abstract optimization model to a methodology applied to a case study with a wide range of

creative activities and users, defining parameters that better depict each space from an abstract model to a real life scenario.

- 48 Other analytical approaches can also be mentioned since they have conveyed established results when experimented in similar circumstances. Space Syntax (Hillier & Hanson, 1984; Hillier, 1996) analyses spatial morphology and the way it influences inhabitants' uses and paths, based on quantitative criteria. Also, Post-Occupancy Evaluation (Preiser, Rabinowitz & White, 1988) informs on how the space is fulfilling the needs for which it was built and identifies its current usage. Facilities Performance Evaluation (Zimring, Rashid & Kampschroer, 2005) examines the building's performance according to the requirements found throughout its lifecycle.
- 49 In contrast, studies based on personal data and focused on individual fruition rather than space use, comprise a more cultural perspective and are not amenable of analysis only by space's efficiency or functional potential. Generally, this is a thorough way of understanding spatial experience based on its occupants, assuming that each one has a particular way of experiencing architecture. The ones based on the individual feedback are entitled "self-report measures" such as interviews, written reports, surveys, focus groups, narrative techniques, time sampling and diaries, as developed by Peter Lippman (2010, p. 45), who specifically applies them to school buildings. Otherwise, these studies can also be carried out by a third party who observes and then provides reports based on behavioural descriptions, possibly recurring to digital techniques like photography, video or the recording of physical traces, for a faster and more precise analysis.
- 50 Assuming that each case study embodies specific features according to its design and the nature of the experience envisioned, also the choice in method(s) to identify and assess the *living experience* in space should reflect this specificity. Therefore, the gathering of different inputs as a whole leads to a more insightful perspective on the experiences provided by this school after its rehabilitation, and allows the identification of the degree of adaptability that each spatial feature has to enable different activities and respective experiences, as well as its ability to engage the overall school community.
- 51 So, for choosing the approaches that better suit this case study, it is relevant to consider that this particular school has specific activities and both formal and informal uses, equally relevant for students' achievement. It holds academic and non-academic spaces, related either with the artistic or regular teaching, general and more specific classrooms, for internal and external users, which potentiate different ways of appropriating space by the school's broad community.
- 52 Having presented the User Research methods, and recognizing their relevance and specificities, their translation onto this case study is lined by a critical consideration in order to reach a more robust, systematized and comprehensive methodology, but also a balanced approach between the cost and benefit of resorting to each particular method. It also aims to be multidimensional since it is transposed from abstraction to reality, with the conjunctural constraints related to the human occupancy – the Albertian *commoditas*. It is also within the realm of architecture, because although it can resort to other study fields like sociology, anthropology or mathematics, it ultimately aims to answer an architectural brief and to provide deeper knowledge for future designs.
- 53 The references on the state of the art cited earlier, from both architecture and other fields of study and amongst different spaces and time periods, play a significant role when constructing this methodology, because they allow a more insightful understanding

of the possible solutions for this problematic. In fact, the theoretical and the practitioners' outlook, considered respectively in chapters 1 and 2, also present us with information on numerous approaches, which will consequently portray different *living experiences*.

- 54 Recalling Bernard Tschumi's quote from chapter 2: "Architecture is defined by the actions it witnesses as much as by the enclosure of its walls" (Tschumi, 1994, p. 100), this school is an example of a space enriched by the broad range of actions it witnesses and promotes. This is better described by specific methods directed towards each dimension of the *living experience*, from Steven Holl's unanalysable or Louis Kahn's unmeasurable architecture that engages each individual in a non-generalizable sensory phenomenon (see Pallasmaa, chapter 2), to Ian Hacking's definition of a collective and regular happening.
- 55 Thus, the methodology for this research that more fully answers the problematic is a combination of some of the previous methods that provide specific results and comprise different levels of the *living experience*, considering the specificity of the artistic school. Hence, in order to develop a more comprehensive analysis, it is intended to use a triangulation of methods, by crossing different approaches for a more thorough output, on both individual and group fruition, emotional and physical experience in space. This can be achieved by crossing distinct frameworks under User Research Studies, namely: analytical matrices, Space Syntax studies and individual self-reports, as detailed in the following description of the methodology:
- 56 1. Analytical feasibility matrices quantitatively display the relation between spaces and activities, by matching spatial attributes to the activities they have the potential to support. These outcomes are collected in charts subject to interpretation, concluding on the attributes that enable the highest entropy levels, and consequently which spaces are the most probable to shelter the widest range of activities. Allocation matrices display in a chart what are the actual activities that take place in every space, detailed by schedule organization. These describe the formal activities thought for each space and experienced by a collective ensemble, previously determined by the management of the school. The compared results between both matrices provide information on how and under what conditions each space is currently being occupied and its "loose-fit" potential to shelter other activities and occupants. This illustrates the dichotomy between abstract and concrete space as developed by Henri Lefebvre (*op. cit.*), acknowledging that the envisioned potential of each space in an optimized solution and its effective use in the current context can be thus correlated.
- 57 2. Space Syntax studies analyse the building's morphology, assuming that "the degree to which spaces are used for movement is a function of their configurational position" (Hillier, 1996, p. 392). By formulating an axial map and determining the values of the parameters such as integration, depth or connectivity, these studies provide data on the degree of centrality of a space or a pathway within the whole system, the features of proximity and sinuosity of a particular pathway, and ultimately its intelligibility and easiness of perceiving the space. The conclusions provided by these studies, when subject to cultural and social interpretation, can suggest whether the variables related to spatial morphology affect spatial fruition.
- 58 Actually, although a particular space can shelter an activity, allocation matrices demonstrate that it can be more or less chosen against other spaces with similar features. This information when crossed with the data collected by Space Syntax studies indicates

whether the location of a particular space can influence its fruition, both on the frequency of use and on the range of activities held.

- 59 3. Self-reports for personal testimonies deliver individual qualitative descriptions on spatial fruition and complement the previous more general conclusions with a more detailed assessment of the *living experience*. This is particularly relevant in contemporary school buildings that value informal spaces and activities as crucial part of the learning process, such as casual actions that take place in public spaces like the cafeteria or the school's common hall. In addition, since it is aimed to an artistic school, the nature of the activities and inhabitants involved has to be considered. Hence, feedback by means of self-reports describes more thoroughly individual experience in space and informal appropriation. The information in these reports illustrates, in another context, how Hans Robert Jauss's reception theory can be transposed to the school's inhabitants as active readers of the space, creators of sense, or authors of their own narratives as Walter Benjamin described it.
- 60 4. The final stage of this research corresponds to the interpretation of the results gathered, translating them into operative knowledge for a broad depiction of the space and the spatial features that enable the identified experiences, either individual and collective, formal and informal, in Quinta das Flores School.
- 61 The expected outcomes are a comprehensive outlook on how, when and by what means does space enable or constrain the spatial experience envisioned by the architect, or whether effective spatial fruition overlaps the expected one. Overall, this gathering of methods and respective results describes more fully the spatial experience, quantitatively and qualitatively.
- 62 The originality of this research lies both within the choice of the artistic contemporary school building as case study and the assessment of its specific ambiance experienced at several levels. Overall, it aims at providing operative knowledge to the subject of architecture, displacing the advancement from the achievements of the referred authors mentioned earlier and also their possible interconnection, contributing with a thorough and refreshed outlook as an input to the design process.

Final remarks

"The interplay of architectural design and user creativity needs to be a constantly expanding field of discourse, experience and practice." (Hill, 2003, p. 3)

- 63 Thinking about the *living experience* implies acknowledging what is immediately outside of ourselves and how we, as individuals, perceive and are engaged by it. Assuming that the definition of experience is addressed by different study fields, for architecture it holds particular relevance.
- 64 In order to produce a more comprehensive outlook on this issue, this article intends to consider the *living experience* as a design content, acknowledging it throughout all the stages of the building's lifecycle, from the brief and the design process in which it becomes a motivation and an expectation, until the space's occupancy and fruition when it is actually accomplished. As reviewed throughout this article, and despite this shared concern, the approaches to identify, conceive and assess the *living experience* in space are very diverse.

- 65 As mentioned in chapter 1, experience is considered by different approaches and fields of study. Chapter 2 presented some examples of projects that value sensory experience by physically triggering the senses, or intellectually engaging the inhabitants through a conceptual approach. Chapter 3 refers to the different methods for assessing the expected and effective *living experience* in space, focusing on the relevance of User Research Studies.
- 66 The reference to the case study of a particular school that gathers artistic and regular curricula is an example of a space rehabilitated to potentiate a broader range of activities by a wider community that ultimately can be best assessed by an extensive range of methods in order to fully identify its multi-layered experience in space. It is also an example where the change in space has potentially an implication in the learning process, ultimately bonding architecture and experience and including the human condition in the design.
- 67 This is a topic, which is being rethought according to today's contextual significance of the *living experience* in space, and its specificity when applied to contemporary school buildings. Indeed, because of the current curricular and technological changes, experience in school buildings has also evolved. Hence, the relevance of this research lies within the need to study and assess the current *living experience* in today's active learning environments. It is also newly pointed out to a specific school that could be considered a more complex case study, since it holds a more plural set of inhabitants and actions, which generate a cultural, social and educational center for the community.
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NOTES

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2. Quote from his speech in the House of Commons in October 28, 1944, published in *Time* magazine in 1960.

3. Original quote in Spanish: “*El sentido de todas las cosas bellas creadas reside tanto, por lo menos, en el alma del que la contempla como en el alma del que la produjo. Sí, más bien es el espectador quien presta a la cosa bella sus mil sentidos, y la hace maravillosa para nosotros, colocándola en una nueva relación con la época [...]*”

4. Tadao Ando interviewed by Michael Auping (Auping, 2002).

5. Original quote in French: “*polyphonie des sens*”.

ABSTRACTS

This article aims to analyse the concept of the *living experience* applied to architecture, throughout the whole building's lifecycle, from the design brief and spatial conception envisioned by the architect, to its materialization, and finally to the spatial appropriation undertaken by the user(s) - whether as individuals or as a group. Hence, it will start by focusing on the concept's state of the art for separate authors and study fields, pointing out their approaches to architecture, and it will then refer to authors whom have applied this concept to the architectural design. Secondly, it will identify different design approaches and practitioners that value the *living experience* from the brief, either by using the most traditional and timeless architectural tools to the most recent ones. Finally, this article will focus on the way to identify and assess the *living experience* by the user(s), according to the different meanings mentioned above, the goals of the research and the features of each architectural space. Particularly, since each project enables a particular spatial fruition, it will explore a specific case study of an artistic school recently rehabilitated, which beholds a precise and multi-layered environment, potentiating both the learning process and the life within it.

Cet article cherche à analyser le concept d'*expérience vécue* appliqué à l'architecture, à travers l'ensemble du cycle de vie d'un bâtiment, depuis les premières esquisses et l'organisation spatiale établies par l'architecte, jusqu'à sa matérialisation et finalement, l'appropriation définie par les usager(s), individus ou groupes. L'article débute par un état de l'art du concept d'*expérience vécue* du point de vue de différents auteurs et champs d'études, mettant en évidence leurs approches de l'architecture ; il pointe les auteurs qui ont mis en œuvre ce concept dans la conception architecturale. En second lieu, l'article identifie différentes approches de conception et différents praticiens qui mettent en avant l'expérience vécue dès l'esquisse, en utilisant aussi bien les outils architecturaux les plus traditionnels que les plus récents. Enfin, l'article se focalise sur les manières d'identifier et d'évaluer l'expérience vécue par les usagers, selon les différentes acceptions mentionnées précédemment, les objectifs de la recherche et les caractéristiques de chaque espace architectural. En particulier, dans la mesure où chaque projet permet un accomplissement spatial particulier, l'article explore le cas d'études spécifique d'une école d'art récemment réhabilitée, qui propose un environnement complexe et précis, potentialisant à la fois le processus d'apprentissage et la vie intérieure.

INDEX

Mots-clés: Expérience vécue, esquisse architecturale, appropriation, usagers, école d'art

Keywords: Living experience, design brief, appropriation, User Research Studies, artistic school