Регайя Имен

К КОНТЕКСТУАЛИЗИРОВАННОЙ СОВРЕМЕННОЙ АРХИТЕКТУРЕ:
МЕЖДУ СМЫСЛОМ И ЗНАЧЕНИЯМИ[©]

Национальная школа архитектуры и урбанизма,
Карфагенский университет,
Тунис, Тунис, imenregaya@yahoo.fr

Аннотация. Эта работа представляет собой результат опроса, посвященного современной архитектуре медитативных пространств как системе обозначения, точнее, отношениям между социальным актором и его «обитаемым» архитектурным пространством. Изучение современных контекстуализированных проектов позволяет обнаружить производство смыслового эффекта, возникающего в результате мобилизации «обитаемого» пространства и знаков, появляющихся в нем и характеризующих его. Мы пытаемся разглядеть взаимосвязь между пользователем и фрагментарным пространством (набор элементов той части здания, где он живет, и его непосредственное окружение). Эти фрагменты приобретают значительную ценность во время выполнения священных ритуалов, которые происходят в определенном месте в пространстве. Это пространство-время, наполненное смыслом. Таким образом, архитектурное пространство придает духовное измерение отношениям между социальным актором и современной архитектурой. Мы приходим к выводу, что современное «обитаемое» архитектурное пространство – это не только фрейм событий, но и активный агент, вступающий в отношения с пользователями. Мы решили предложить студентам-архитекторам третьего курса прочитать, проанализировать и «переписать» архитектуру сакральных мест. Главная цель – заставить их осознать необходимость сочетания различных компонентов архитектурного пространства, которое должно быть задумано как зна-

---

ковая система, находящаяся в постоянной связи с субъектом, и которое способно предложить решения, позволяющие им адаптироваться и узнавать себя в этом пространстве.

Ключевые слова: фрагментарное пространство; создание смыслового эффекта; повествовательная последовательность; синтагматическая цепочка; сегментарное значение.

Regaya Imen
Towards a contextualized contemporary architecture, between sense and significations©

ENAU, *University of Carthage*,
Tunisia, *Tunis*, *imenregaya@yahoo.fr*

Abstract. This work emerged from a questioning about the contemporary architecture of meditation spaces as a signifying system, more precisely, on the relationship between the social actor and his "inhabited" architectural space. The study of contemporary contextualized projects make it possible to detect the production of a sense effect resulting from the mobilization of "inhabited" space and the signs appearing there and characterizing it. We try to discern the relationship between the user and the fragmentary space, namely, the set of elements belonging to the building part where he lives and to his immediate environment. These fragments acquire significant values during the performance of particular sacred rituals, which occur in a specific location in space. It is a temporalized place, charged with meaning. The architectural space thus gives a spiritual dimension to this relationship between the social actor and the contemporary architecture. We conclude that the contemporary "inhabited" architectural space is not only a framework of actions but also an active agent coming into contact with users. We have chosen to ask our third-year architecture students to read analyze and rewrite this architecture dedicated to meditation. Our main aim is to make them aware of the need to combine the different components of the architectural space, which must be conceived as a signifying system in a perpetual relation with the inhabitant subject, and which is able to provide solutions that allow them to adapt and recognize themselves in these spaces.

Keywords: fragmentary space; production of a sense effect; narrative sequence; syntagmatic chain; segmental value.

1. Introduction

This paper presents our didactic approach to teaching architecture, which is based on the apprehension of the architectural space as a cultural object, carrying values and meanings. The space – time of architecture has a cultural dimension which can be revealed by a semiotic approach. We are dealing here with non-verbal semiotics.

This work presents the contemporary architecture of meditation spaces as a signifying system, and more specifically, the relation between the social actor (the visitor) and his architectural space "inhabited" and more precisely, run through.

A semiotic approach to the spaces experienced and traveled by users will reveal to us the interest we have in this complex relationship between the architectural space, charged with meaning, and the social actors. Indeed, semiotics is about the study of meaning and its manifestations; its object could have a verbal narrative dimension (text) and/or a cultural dimension that is reflected by the practices and behaviors of the social actor (man), his gestures, his rituals and his myths...

The semiotics of architecture is defined by Renier [Renier, 2003, p. 45–49] as "the place of a syncretism of differentiated external semiotics (visual, plastic, scenographic, sound, etc.)". In this regard, he explains: "It is no longer just a question of the co-existence of the materiality of the building and the physical phenomenality of the environment encompassed, but of what results from their joint organization to function together and interactively in diverse social situations" [Renier, 2008].

In order to better establish this work, our approach is based on key concepts such as Renier's *conformation and configuration* and *the process of semiosis* [Renier, 2008], Pellegrino's *sense of space* [Pellegrino, 2000], *the sensible action* and *the third space* of Ricœur [Ricœur, 1986], *the cosmic constructed space time* by Muntaňola [Muntaňola, 2010], and finally, Bakhtin's *chronotope* [Bakhtine, 1981].

Our work is part of my doctoral research carried out at the National School of Architecture of Tunis [Regaya, 2013], and of my attempts to apply and popularize the analysis model and the results of my research, on the pedagogical level [Regaya, 2019, p. 212–219].

Conventional didactic methods rarely address physical space, the social actors that inhabit it, the objects it contains and the places it encompasses, at the same time.

In order to familiarize the student of architecture with the socio-cultural dimension of space and to develop his imagination, we have tried to introduce spatiotemporal configurations as tools of analysis and design. With the use of spatial practices observation and the identification of distinct spatiotemporal configurations of living places, architecture thesis students also gained an awareness of the context assigned to urban and/or architectural intervention.

Indeed, as part of a new educational experience in September 2019, we chose to offer our third-year architecture students the opportunity to read, analyze and rewrite a contemporary architecture dedicated to meditation, whose concrete physical forms and user expectations have undergone a noticeable change, at the same time raising a need to consider the use of built and arranged spaces and to take into account their sensitive properties.

2. Content of exercise, tools and method

We have chosen the following 3 projects as working support:
o   Meditation space in north-eastern China, designed by Hilarchitects;
o   Windhover contemplative centre (Spiritual refuge) by Aidlin Darling Design, Stanford, CA, The United States;
o   Waterside Buddhist shrine; by Arch studio.

These meditation spaces are designed to inspire reflection. They provide a disconnection from the intensity of everyday life. These are space-times of suspension, immersion in an atmosphere of calm and serenity. They offer the user a unique sensual experience. These spaces should be spots of relaxation where comfort, as well as physical and mental well-being prevail.

The three scenic subjects, exercise support, are characterized by their contemporary, contextual architecture and by their impact on the sensitive and sensory user experience.

In this paper, we are focusing on a single example, the Windhover contemplative centre. Based on the data provided and on personal research carried out by groups of students, the exercise consists of dis-

secting and analyzing a reference architectural work, namely acontemporary architecture in order to be able to identify its significance and the concepts to which the architect has resorted and then try to synthesize them. The concepts can be linked to the socio-cultural environment, to the physical environment, to scientific, artistic or philosophical gains, to technical prowess or to functional constraints specific to projects, etc.

2.1. *First phase / Data collection* (*group work*)

Students are required to collect all possible data concerning the projects assigned to them: graphic documents, photos, videos, descriptive texts... They must carry out the documentary research individually then extract the essential and represent it graphically. Students are invited to conduct a global reflection on the ecological approach and to understand the interactions between man, environment, culture and form. They must prepare a clear speech about the architects, the situation of the projects in their instant environments, their social contexts, the qualitative program and the materials used.

2.2. *Second phase / Identification and representation* (*group work*)

The students have to detect the relation between the intrinsic components of the project and the extrinsic elements. We asked students to answer, among others, the following question: what is the relationship between form, matter, sense and significations? How can we qualify the dialogical relationship between the space actually run through and experienced and the mental space of the visitor?

2.3. *Method*

The understanding of the socio-spatial rituals will also allow them to identify the different spatio-temporal configurations engaged in the formal and material realization and to deduce the signification of the architecture of the analyzed project.

We recall here that, through this exercise, we tend to encourage students to apprehend architectural space not only as a physical object but also as a cultural object rich in significations. Architectural space is defined as the couple constituted by a material object and by a "con-

textualized" social fact. We have demonstrated this through our further research [Regaya, 2012].

"There can be no social fact in the architectural space, if we do not consider at the same time the active presence of the social actor in the space, and the effect of presence of this one as another body in active relation with him" [Regaya, 2013, p. 15].

3. Contextualized architecture

Muntaňola [Muntaňola, 2010, p. 143] defines the context or the environment as an "active element which changes its structure of signification over time".

He asserts that the cultural quality of an object produced in an environment resulting from an appropriate culture and history and in a social and physical dialogue cannot be identified with modern autonomy. He adds that architects are responsible for knowing the modes of significations and the content of the culture of the potential users of the projects they carry out. Social and intercultural dialogue is the only way to achieve a specific modernity in each place, while respecting differentiation.

"The non-conceptual aspects and dimensions of the object are an essential part of social dialogue and the dialogical value of the object and the environment". Muntaňola considers architecture as "a logico-topo-symbolic instrument generating places to live" [Muntaňola, 2010, p. 117]. Architecture is dependent on social, aesthetic and technological changes.

He confirms that any architectural or urban analysis which neglects the culture relating to users would not lead to any logic. Knowledge of their myths and rituals is then required, as is also the case with all cultural texts (Fig. 1).

"Architectural language, like any language, is part of a culture and allows social communication; the forms it projects are interpreted not only as measures given to objects in a cultural context, but also as divisions of our existence that delimit our social relations. It offers veils and underlines transparencies, represents an imaginary and traces perceptible figures, gives a sense to the uses that it makes possible" [Pellegrino, 2000, p. 11].
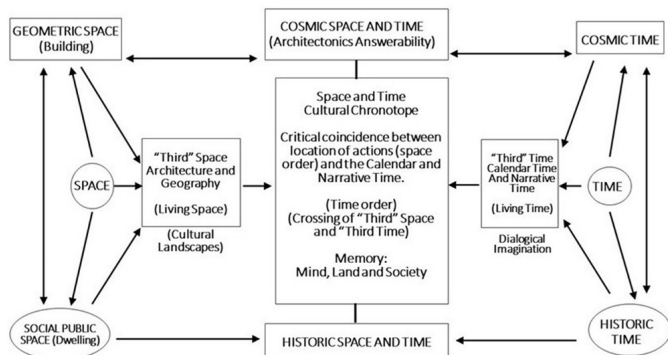
Fig. 1. The intersubjective dialogical relationships between the architect's space-time
and the narrator's space-time [Muntaňola, 2022]

Pellegrino [Pellegrino, 2000, p. 88] emphasizes the culture of the users of places. He says, "Let us first recall that knowledge of the material reality of the surrounding space results not only from the practice of those who use it, but also of their own culture; in a dialectic of communication, subject and object are conditioned by a culture, but a culture does not always correspond to a practice".

The pewrson's behavior in architectural space depends on several conditions emanating from their interaction with the physical, cultural, and social contexts of his community.

As Djerbi [Djerbi, 2011, p. 225], argues is "the expression of the contextual interaction of all the phenomena determining the configuration of existential space".

According to Ricœur [Ricœur, 1986, p. 184–195], if "the action" wants to achieve its richest and most significant sense, it must be inserted in a cultural and socio-physical context. Thus, it becomes fixed, takes on a social dimension and gains an intersubjective and dialogic power. According to Ricœur, "a sensible action" corresponds to the historical and geographical context.

In the educational experience that we present here, we define the contextualized contemporary architecture as an architecture that draws inspiration and interacts with the data of the environment in which it is imbedded and particularly its social, temporal, and cultural context. The

33

term environment is used here to designate and enhance the harmonious relationship between space – living environment and the main actor, the Man.

"Wanting to create an architecture that takes into account the complexity of the real supposes that we carefully analyze the context in which we are building. However, this latter is not only typo-morphological, geographical, historical, cultural; it is more broadly social and temporal, [...] the people who will use the building will not live as they did thirty years ago and will still live differently tomorrow" [Farel, 2008, p. 179].

The connection of the architectural object with the symbolic, physical, urban, cultural, social, and spiritual context allows a better understanding of the built space.

4. Reading and analysis of a contextualized contemporary architecture: the example of the Windhover mediation centre

The "Windhover meditation centre" is located in a wooded area of the Stanford University campus (Fig. 2). The visitors are students and teachers of the university campus. According to the architect, "It is intended for quiet reflection throughout the day for any Stanford student, professor or staff member, as well as for members of the community [McKnight, 2016].

The students noted the ecological character of the building: the building is integrated into its environment, and aims, among other things, to reduce energy losses through the use of natural materials and by orienting the main activities on the east side.

The materials (stained oak, rammed earth, and glass) and the color palette (natural color nuances of the surrounding landscape) reflect the ecological dimension (Fig. 3) of the mediation centre. They play an important role in the visitor's sensory experience and reinforce the fact that 'it is a contemplative refuge (Fig. 4).

According to Floch [Floch, 1984, p. 78], the materials are not matter since they are loaded with sense by the social actor (the subject). They are considered as substance of expression. They are perceived and interpreted by the subject.

The visitor's course is punctuated by three refuges and two courtyards. Outside, the architect created a water garden to the south, and an exterior garden and an exterior terrace to the north. Our students interpret the presence of water as stimulating contemplation and the feeling of tranquility and improving memory restitution.

In the contemplative space, the seating arrangement allows visitors to simultaneously contemplate the painting and the instant landscape (framing the view of the oak groves, etc.). Likewise, from the oak grove, visitors can see the paintings without entering the building.

The interaction visitors / landscape / architecture is guaranteed throughout the visit (Fig. 5). The human / nature connection is visual and material. Aidlin notes, "It was critical to Nathan Oliveira that the space feel organic, not like a stark white museum" [McKnight, 2016].
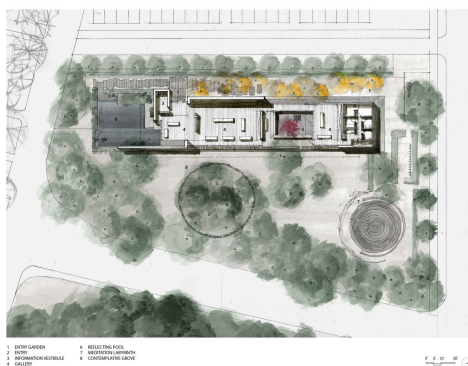

Fig. 2. Windhover meditation center plan
Source: URL: https://www.archdaily.com/608268/windhover-contemplative-center-aidlin-darlin-design/54ffd847e58ecee4f1000096-floor-plan
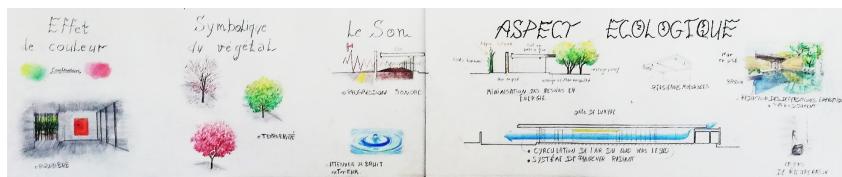

Fig. 3. The ecological dimension of Windhover meditation center
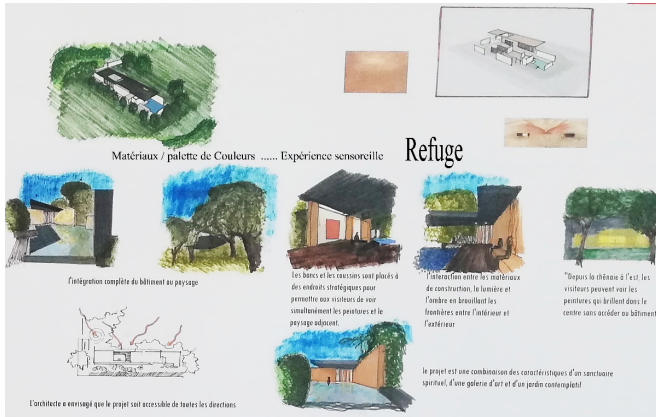Source: Student's graphic board

Fig. 4. The impact of material and colors on the sensory experience of the visitor.
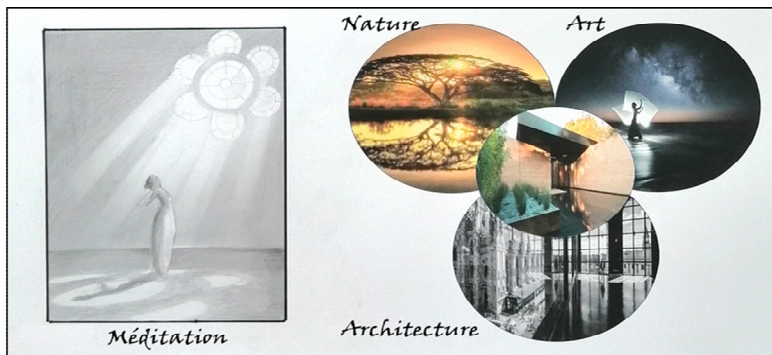Source: Student's graphic board

Fig. 5. The human-nature connection.
Source: Student's graphic board

5. Results and discussion

At the "Windhover meditation center" all the students noted not only the ecological aspect of the project, but also the close relationship between art, culture and architecture. The architecture of the center is in harmony with the natural and cultural context.

The project is intended to be the result of a combination of the characteristics of a spiritual sanctuary, an art gallery and a contemplative garden. The students made an analogy between the meditation centre and the Japanese garden: the use of wood, pebbles and Japanese steps gives an effect of purity. The presence of the Chinabberytree would also be an analogy to the Asian flora dominated by red or pink.

Only one group of students used the hawk metaphor as they referred to the poem "The Windhover" by Gerard Manley Hopkins which inspired the painter.

5.1. *Course of sense and path's signification*

Reading and analyzing contextualized contemporary projects make it possible to detect the production of a sense effect resulting from a mobilization of the "inhabited" space and the signs that appear there and that characterize it.

The apprehension of the process of producing a sense effect is based on a semiotic approach to architecture, whose object is the study of architecture as a system of significations [Renier, 1987, p. 11].

We clarify that we are referring precisely to "syncretic" semiotics [Greimas, 1976] (not reducible to semiotics of the built space). The semiotic approach integrates into a single "cognitive modeling" the forms of "physical organizations" (biomatics and tectonics) and those of "semantic organizations of signified contents". In the study of mediation spaces, we are confronted with a complex signifying set, which can only be approached by considering, among other things, the semiotics of the "signifying practices" of the space visitors. At this stage, and seeing that direct observation of significant practices is impossible for us, the students referred to the various texts relating to the meditation spaces analyzed to derive the rituals that take place there, the possible courses of visitors and superimpose them on the available graphic documents. These are the actions that will inform us about the space lived and perceived by the visitor. The spatial character of this signifying set invites us to consider it using the "subterfuge of linearization", by transposing the spatio-temporal paths of visitors.

"The act of designing the architecture of a building or deciphering its organization during the use of the premises are considered today

as 'significant practices'. They are thus subject to a semiotic analysis"
[Espace: construction … , 1984].

Let us recall here that our main concern is to make students aware of the need to combine the different components of the architectural space, which must be conceived and experienced as a signifying system in perpetual relation with the subjects who traverse it and which allows them to adapt and recognize themselves in these spaces.

5.2. *The pedestrian and sensory course corresponds to a significant course*

At the "Windhover meditation center": Visitors access from the north side by a narrow path made of crushed stones and delimited by a row of bamboo. The goal is to let go of the outside world. Using semiotic terminology, we can qualify this outer world as a heterotopic space (spaces of secular activities).

The sound of walking on the gravel outside then on paved concrete, and that on wooden oak floors [...] stimulates the hearing and reinforces the soothing sensation inside the project. The course turns 180 degrees, materials and colors also change to reinforce the "refuge" effect (Fig. 6). "The most important hearing experience that architecture creates is tranquility" [Pallasmaa, 2010, p. 60]. Upon reaching the gallery, the space silences all exterior noise and attention is focused on our interior fortress.

"Hearing structures the experience and understanding of space" [Pallasmaa, 2010, p. 57]. The end of the course is marked by the presence of a labyrinth, inspired by that of "Notre Dame de Chartres" (Fig. 7). The center would cross-reference with Jerusalem, according to the students' interpretation. A group of students interpreted the labyrinth as the space where we can break free from everyday stress, where we have to respect the rhythm of the other people around us. It is a unique path that leads to paradise (utopian space).

Interaction is not only between space and sound; it goes hand in hand with tactility (e / g /, hand scraped oak floors and wood slats, earthen walls).

The spatial quality of the various places visited at the "Whindhover meditation center" offers an alternation between visual and physical permeability (between interior and exterior space) on the one

hand and view filtering (indirect and diffused light) on the other. The contrast and the alternation between depth effect and exposure effect (between shadow and light) make the space more attractive and mysterious. The vertical expansion of the light and the subdued light enable the visitor to calm down.

Figure 8 (Fig. 8) is a synthesis board of a student representing this dilatation effect. The soft light that permeates the exhibition space highlights Olivera's paintings.

"Shadows and deep obscurities are essential because they blur the sharpness of vision, make depth and distance ambiguous, and appeal to unconscious peripheral vision and tactile fantasy" [Pallasmaa, 2010, p. 53] (Fig. 9).

The students also noted a correlation between light and time: the light rhythms describe the experience pattern and its sequences define time.

The course is marked by times of breaks and stops, times of meditation. The passage from the profane to the sacred corresponds to work on the scenography of light (Fig. 10). When the sensory experience is memorized, space, matter and time merge into a single and unique dimension.

The understanding of socio-spatial rituals also allowed the students to identify the different spatio-temporal configurations involved in the formal and material realization and to deduce the significance of the architecture of the analyzed project. The meditation space is a "container" of possible spatio-temporal configurations in the same spatial conformation (Fig. 11).

The configurations of living spaces are the instant contexts in which the various rituals take place. They are of a spatio-temporal order and a symbolic order. Certainly, the configurations of places are made up of physical elements of the manifest conformations of architectural spaces, but their outlines are generally abstract. They are inherent in architectural space. However, they are detectable by observation and/or analysis of practices.

The students noted configurations relating to contemplation in solitude, others pertaining to the relationship between the social actor and the sky (in the configuration of the patio, near the reflecting pool), configurations relating to the actantial program "meditate" (within a semi-lit space).

Fig. 6. Sensorial perception – Refuge effect
Source: Student's graphic board

Fig. 7. Analogy to labyrinth of "Notre Dame de Chartres".
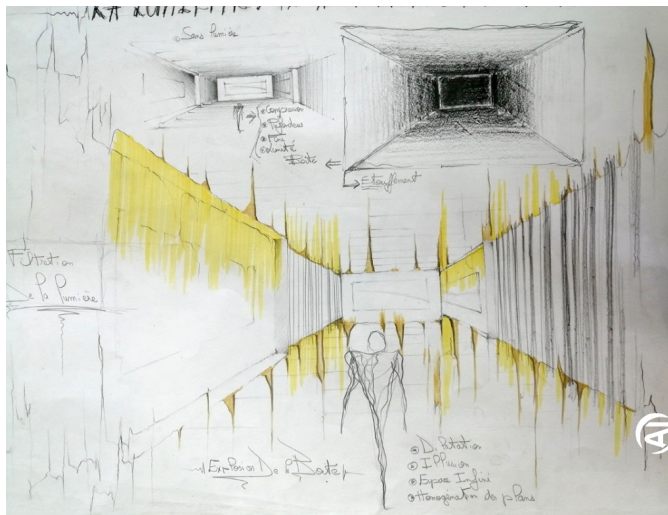Source: Student's graphic board

Fig. 8. Dilatation effect of light.
Source: Student's graphic board

Fig. 9. Shadows and depth effect.
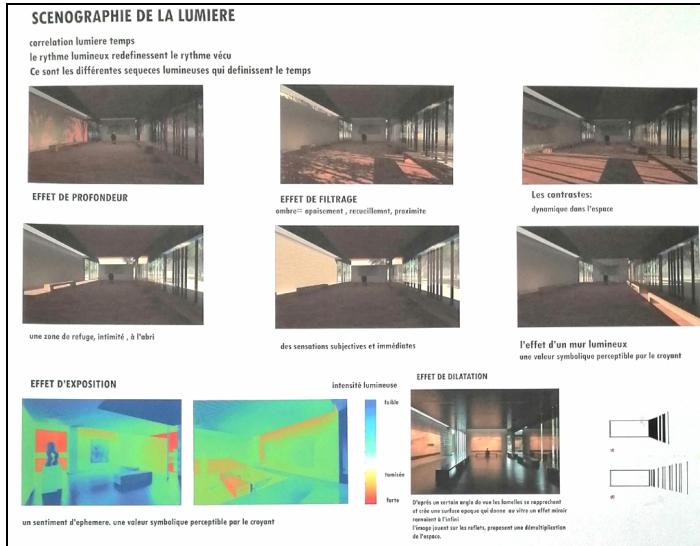Source: Student's graphic board

Fig. 10. Scenography of light
Source: Student's graphic board

Fig. 11. Spatio-temporal configurations relating to "meditate" action programs
Source: Student's graphic board

5.3. *From fragmental to segmental*

The analysis also made it possible to discern the relationship between the user and the fragmental space, that is to say all the elements that belong to the part of the building where he lives and to his close environment. These are the spatial configurations relating to the various

action programs (use) that illustrate the places and the used objects carrying sense. Renier's diagram [Renier, 2020] explains the constitution of the segmental space by the course and their rituals (Fig. 12).

As in ethnomethodology, this sense is local since it depends on space (the place where we are), time (the moment taken into consideration), and the choice of the reference corpus.

Visitors retain several landmarks of different values in relation to the segmentation of the course (sound, dilated light, glare, the Chinabbery tree, framing on the oak grove, presence of water, reflection of the vegetation on the body of water, etc.). We interpret these landmarks as elements of sense, which help to signal the rituals of visitors and which allow them to recognize the space traversed (Fig. 13). The relation between the course and the form is rich as long as there are orientations and landmarks. These elements, which belong as much to close orders as to distant orders.

Any fragment can acquire a segmental value for a specified / definite duration of the course. Through the journey of appropriation, these elements and the different sub-spaces are certainly reorganized into a syntagmatic chain relating to a narrative sequence of a visitor, to interact with the different action programs.
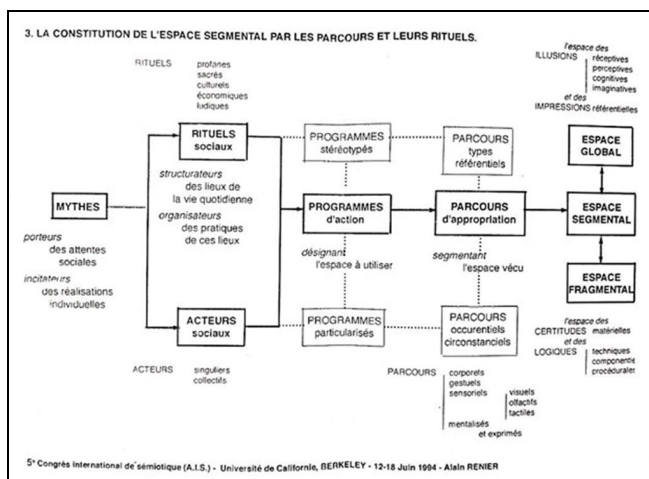

Fig. 12. The constitution of the segmental space by the courses and their rituals
[Renier, 1994]

Fig. 13. Landmarks relating to the segmentation of the course.
Source: Student's graphic board

5.4. *Temporalized places*

These fragments acquire significant values for variable, but limited durations of time. This acquisition of value occurs during the performance of sacred rituals that take place in a specific place in space (Fig. 14). It is then a temporal place, loaded with meaning, defined according to spatio-temporal coordinates specific to the action that takes place in. The meditation course thus gives the space a segmental value.

"By 'temporalized place', it is meant any physically or virtually constituted place, thus endowed with spatio-temporal coordinates necessary for the conduct of a characterized action, whatever its nature" [Renier, 2004, p. 4].

The temporalized place has a "chronotopic" structure. According to linguists, the chronotope connects text (virtual) and reality [Bakhtine, 1981]; in architecture, the chronotope analysis is the analysis of the relationship between the architectural project and the culture.

Some examples of temporal places are as follows: places of rupture with reality, of regeneration of the mind, places of floating, places of contemplation, place of meditation (of disconnection), the walking meditation, etc. (Fig. 15).
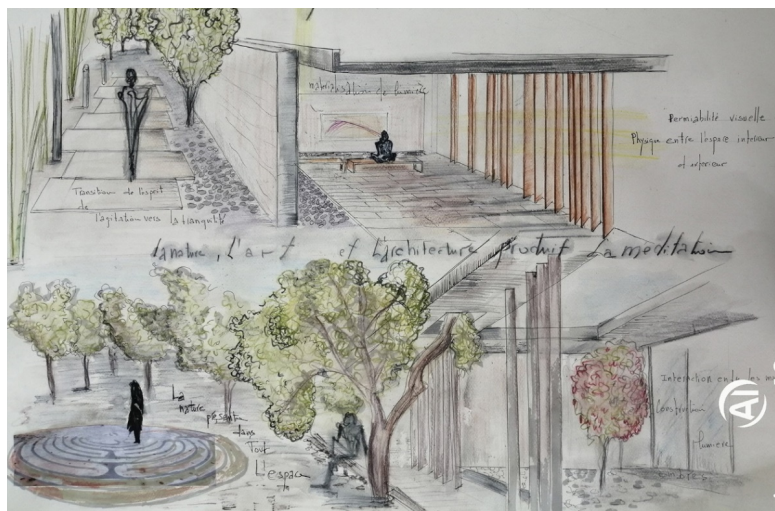
Fig. 14. Temporalized places.
Source: Student's graphic board

Fig. 15. Examples of temporal places**:** places of rupture with reality, of regeneration of
mind, places of floating, places of contemplation, place of meditation.
Source: Student's graphic board

By referring to Greimasian semiotics, to the work of Levy [Levy, 2003], Renier, and other semiotics and to what we were able to conclude in our subsequent research, we could also structure the course of a visitor to the "windhover centre" – relating to the action program "meditate" – in 3 parts, in relation to the modal competence of the recipient: paratopic space, topical space and utopian space.

Thurlemann [Thurlemann, 1984, p. 38] defines the topical configuration as a "semiotic object whose substance of expression has a plastic manifestation in two or three dimensions".

We define the topical place as the place of the accomplishment of the action (meditation), it is not only the space of reference but also

the place of "recognition" at a specific time of use. All the students unanimously identified the following topical places of meditation: places inscribed in the conformation of the South Gallery of Whindhover Center; in front of the body of water, and labyrinth.

The architectural space thus confers a spiritual dimension to this relationship between the social actor and contemporary architecture.

It can be deduced from the above that:

– Walking through the meditation space is a personal "synaesthetic" and emotional experience due to the constant interaction of all the senses.

– When there is an overlap between the physical form and meditation, the moment of interaction is important. Some places are capable of being inhabited by "synaesthetic" experiences, where the perception inherent in the visitor is associated with a multimodal sensory experience, that is to say, with an experience which associates sight, hearing, touch, gestures, and communication.

– When the visitor identifies several landmarks simultaneously, we can assume that all of their senses are connected. It is therefore more oriented in space-time and it has more possibilities to move. In this case, we deduce that the space travelled enjoys an eminent quality.

6. Conclusion

In conclusion, the contextualized contemporary architectural space is not only a perimeter of actions, but also an active agent coming into contact with the people who inhabit it and according to the action programs they carry out.

It is true that this is not the only way to view architecture as a system of significations. This semiotic approach to architecture does not claim to offer a unique answer. The semiotic approach could be confronted with an ethnographic approach which is based on the investigation of photos and exploratory studies, in order to understand the ritual of the user (the trusted), the actions he performs, the values exchanged and the mental representations that result from them. It could also be supplemented by an ambient approach making it possible to qualify and quantify certain benchmarks or signs of a phenomenological or physical nature. It would also be interesting to confront it with "configurational" analysis, of which Hillier's "Space syntax" is an

example [Hillier, 1996]. The Space Syntax will shed light on the depth of spaces and their spatial quality.

The semiotic approach is also a method of educational investigation for the understanding of the constructed spaces. In our previous educational experiences we resorted to spatiotemporal configurations as tools of analysis (tool applied to architectural didactics) of urban and architectural contexts. We always try to sensitize students to the multiplicity of life configurations, and to the interaction between culture and the architectural project.

Bibliography

Bakhtine M.M. The Dialogic Imagination / transl. by C. Emerson & M. Holquist. – Austin : University of Texas Press, 1981. – 481 p.

Djerbi A. L'architecture vernaculaire de Djerba: Pour une approche sémio-anthropologique. – Tunis : R.M.R., 2011. – 254 p.

Espace: construction et signification / Renier A. (dir.). – Paris : La Villette, 1984. – 251 p.

Farel A. Architecture et complexité, le troisième labyrinthe. – Marseille : Parenthèses, 2008. – 256 p.

Floch J.M. Pour une approche sémiotique du matériau, Espace, construction et signification. – Paris : La Villette, 1984. – 251 p.

Greimas A.J. Sémiotique et sciences socials. – Paris : Seuil, 1976. – 219 p.

Greimas A.J., *Courtes J.* Sémiotique: Dictionnaire raisonné de la théorie du langage. – Paris : Hachette, 1993. – 454 p.

Hillier B. Space is the machine. – United Kingdom, Cambridge : The Press Syndicate of the University of Cambridge, 1996. – 368 p.

Levy A. Les machines à faire-croire, I-Formes et fonctionnements de la spatialité religieuse. – Paris : Anthropos / Economica, 2003. – 247 p.

Muntañola Thornberg J. La topogénèse, fondement d'une architecture vivante. – Paris : Anthropos, 1996. – 176 p.

Muntañola Thornberg J. Architecture comme écriture // Pellegrino P. et Pagand B. Les formes du patrimoine architectural. – Paris : Anthropos, 2010. – 270 p.

Muntañola Thornberg J. The dialogical genesis of city forms // International Seminar of Urban Form. – Glasgow : Universitat de Strathclyde, 2022. – P. 55–62. – DOI 10.17868/80146

McKnight J. Aidlin Darling creates a meditation centre at Stanford University with rammed-earth walls. 2016. Dezeen. – URL: https://www.dezeen.com/2016/05/23/aidlin-darling-design-windhover-spiritual-meditation-centre-stanford-university-california-rammed-earth-walls

Pallasmaa J. Le regard des sens / translated from English into French by M. Bellaigue. – Paris : Linteau, 2010. – 110 p.

Pellegrino P. Le sens de l'espace: Les grammaires et les figures de l'étendue. Livre III. – Paris : Anthropos, 2003. – 260 p.

Pellegrino P. Le sens de l'espace: l'époque et le lieu. Livre I. – Paris : Anthropos, 2000. – 153 p.

Renier A. L'apport de la sémiotique à la conception architectural / Sémiotique en jeu ; Arrivé M., Coquet J. Cl. (sous la dir.). – Paris ; Amsterdam ; Philadelphie : Hades-Benjamins, 1987. – 334 p.

Renier A. L'espace sociétal, sémiotiquement réalisé, comme instance de connaissance de l'espace physiquement constitué **//** Semioticsaround the World:Synthesis in Diversity: Proceedings of the Fifth Congress of the International Association for Semiotic Studies, Berkeley 1994 / ed. by I. Rauch and G.F. Carr. – Berlin ; Boston : De Gruyter Mouton, 2020. – P. 557–560. – URL: https://doi.org/10.1515/9783110820065-toc

Renier A. Valeur et valence: La dynamique des configurations de lieux à l'origine de la valence des espaces habités. Les formes du patrimoine architectural / Pagand B. et Pellegrino P. (dir.). – Strasbourg, 2004. – 270 p.

Renier A. Les espaces opérateurs de la sémiosis architecturale // Actes Sémiotiques [En ligne], 111, 2008, consulté le 04/11/2022. – URL : https://www.unilim.fr/actes-semiotiques/2939, https://doi.org/10.25965/as.2939

Renier A. L'espace architectural et ses configurations de lieux // Bulletin AFS. – 2003. – N 3, Juin. – P. 45–49.

Regaya I. Semiotic reading of architectural space: Spatiotemporal configurations as analysis and design tools applied to architectural didactics // 17th International Conference architectonics network; mind land and society. [en ligne]. – Barcelone : UPC, 2019. – P. 212–219. – URL: https://pa.upc.edu/ca/Varis/altres/arqs/congresos/conference-arquitectonics-mind-land-and-society-2019-2/book-final-for-print-2019.pdf – P. 212–219.

Regaya I. Des conformations spatiales aux constellations d'éléments remarquables: Relation dialogique entre l'espace réel et l'espace mental des habitants. Unpublished thesis. Doctorate in "architecture", ENAU. – Tunis : Université de Carthage, 2013. – 358 p.

Regaya I. L'Espace Réel et Espace Mental des Habitants: L'Écart comme Produit de signification // Arquitectonics: Mind, Land & Society, Architecture and research. – 2012. – N 24. – P. 159–172.

Ricœur P. Arcquitectura y narratividad // Architectonics: Arquitectura y hermenéutica. – 2003. – P. 9–29.

Ricœur P. Du texte à l'action: Essai d'herméneutique II. – Paris : Seuil, 1986. – 414 p.

Thurlemann F. Le récit du parcours comme méta-discours analytique // Espace: construction et signification / A. Rener (dir.). – Paris : La Villette, 1984. – P. 37–52.

References

Bakhtine, M.M. (1981). *The Dialogic Imagination*, transl. by C. Emerson & M. Holquist. USA: University of Texas Press. (In Engl.)

Djerbi, A. (2011). *L'architecture vernaculaire de Djerba*: *Pour une approche sémio-anthropologique*. Tunis: R.M.R. (In French)

Farel, A. (2008). *Architecture et complexité*, *le troisième labyrinthe*. Marseille: Parenthèses.

Floch, J.M. (1984). *Pour une approche sémiotique du matériau*, *Espace, construction et signification*. Paris: La Villette. (In French)

Greimas, A.J. (1976). *Sémiotique et sciences sociales*. Paris: Seuil. (In French)

Greimas, A.J. & Courtes, J. (1993). *Sémiotique*: *Dictionnaire raisonné de la théorie du langage*. Paris: Hachette. (In French)

Hillier, B. (1996). *Space is the machine*. United Kingdom, Cambridge: The Press Syndicate of the University of Cambridge. (In Engl.)

Levy, A. (2003): *Les machines à faire-croire, I-Formes et fonctionnements de la spatialité religieuse*. Paris: Anthropos / Economica. (In French)

Muntañola Thornberg, J. (1996). *La topogénèse, fondement d'une architecture vivante*. Paris: Anthropos. (In French)

Muntañola Thornberg, J. (2010). Architecture comme écriture. In Pellegrino, P. et Pagand, B., *Les formes du patrimoine architectural*. Paris: Anthropos. (In French)

Muntañola Thornberg, J. (2021). The dialogical genesis of city form. In *Arquitectonics. mind land and society*. Vol 32. Barcelone : UPC. (In Engl.)

Muntañola Thornberg, J. [& al.]. (2022). The dialogical genesis of city forms. In *International Seminar of Urban Form*. Glasgow: Universitat de Strathclyde, (pp. 55–62). DOI 10.17868/80146. (In Engl.)

Muntañola Thornberg, J. & Carulla, M.S. (2011). *Bakhtine, architectonics and architecture*, *XIVe International Congress on Bakhtine*. Bolonia. (In Engl.)

McKnight, J. (2016). *Aidlin Darling creates a meditation centre at Stanford University with rammed-earth walls*, *Dezeen*. Available from URL: https://www.dezeen.com/2016/05/23/aidlin-darling-design-windhover-spiritual-meditation-centre-stanford-university-california-rammed-earth-walls (In Engl.)

Pallasmaa, J. (2010). *Le regard des sens*, translated from English into French by M. Bellaigue. Paris: Linteau. (In French)

Pellegrino, P. (2003). *Le sens de l'espace*: *Les grammaires et les figures de l'étendue. Livre III*, Paris: Anthropos. (In French)

Pellegrino, P. (2000). *Le sens de l'espace*: *l'époque et le lieu. Livre I*. Paris: Anthropos. (In French)

Renier, A. (dir.) (1984). *Espace*: *construction et signification*. Paris: La Villette. (In French)

Renier, A. (1987). L'apport de la sémiotique à la conception architecturale. In Arrivé, M. & Coquet, J.Cl. (sous la dir.), *Sémiotique en jeu*. Paris / Amsterdam / Philadelphie: Hades-Benjamins. (In French)

Renier, A. (2020). L'espace sociétal, sémiotiquement réalisé, comme instance de connaissance de l'espace physiquement constitué // *Semiotics around the World*:

Synthesis in Diversity: *Proceedings of the Fifth Congress of the International Association for Semiotic Studies*, *Berkeley 1994*, ed. by I. Rauch and G.F. Carr; Berlin; Boston: De Gruyter Mouton, (pp. 557–560). Available from URL: https://doi.org/10.1515/9783110820065-toc. (In French)

Renier, A. (2004). Valeur et valence: La dynamique des configurations de lieux à l'origine de la valence des espaces habités. In *Les formes du patrimoine architectural,* Pagand B. et Pellegrino P. (dir.). Strasbourg. (In French)

Renier, A. (2008). Les espaces opérateurs de la sémiosis architecturale. In Actes Sémiotiques [En ligne], (111), consulté le 04/11/2022. Available from URL: https://www.unilim.fr/actes-semiotiques/2939, https://doi.org/10.25965/as.2939 (In French)

Renier, A. (2003). L'espace architectural et ses configurations de lieux. In *Bulletin AFS*, (3), Juin, (pp. 45–49).

Regaya, I. (2019). Semiotic reading of architectural space: Spatiotemporal configurations as analysis and design tools applied to architectural didactics. *17th International Conference architectonics network*; *mind land and society*. [en ligne]. Barcelone: UPC. Available from URL: https://pa.upc.edu/ca/Varis/altres/arqs/congresos/conference-arquitectonics-mind-land-and-society-2019-2/book-final-for-print-2019.pdf. P. 212–219. (In Engl.)

Regaya, I. (2013). *Des conformations spatiales aux constellations d'éléments remarquables*: *Relation dialogique entre l'espace réel et l'espace mental des habitants*. *Unpublished thesis*. *Doctorate in "architecture"*, *ENAU*. Université de Carthage. (In French)

Regaya, I. (2012). L'Espace Réel et Espace Mental des Habitants: L'Écart comme Produit de signification. In *Arquitectonics*: *Mind*, *Land & Society*, *Architecture and research*, (24), (pp. 159–172). (In French)

Ricœur, P. (2003). Arcquitectura y narratividad. In *Architectonics*: *Arquitectura y herménéutica*, (pp. 9–29). (In French)

Ricœur, P. (1986). *Du texte à l'action*: *Essai d'herméneutique II.* Paris: Seuil.

Thurlemann, F. (1984). Le récit du parcours comme méta-discours analytique // A. Renier (dir.), Espace: construction et signification, (pp. 37–52). Paris: La Villette. (In French)