

The influence of classics on contemporary thinking Louis Kahn and Hestnes Ferreira

Alexandra Saraiva

Faculdade de Arquitectura e Artes. Universidade Lusíada _ Porto; CITAD
Rua Dr. Lopo de Carvalho 4369-006 Porto, Portugal.
E-mail: saraivaalexandra@gmail.com

Abstract. *Architecture and the consequent urban form can be analysed and interpreted without reference to classical influences? Or can we analyse the urban form dated to the time and devoid of any previous bonding or influence? The purpose of this article is to show that two contemporary architects, Louis Kahn and Hestnes Ferreira created their own language of interpretation and implementation of formal relations at the same time they developed their buildings, transposing the formal urban analysis for the formal development of each projected unit. The designation of morphology results from the analysis of configuration and the exterior structure of an object, in direct relation to the phenomena that arise. Despite all the classical thought, the architecture of both architects closes a dimension beyond the essential nature of architecture as Michel Freitag uttered (2004) in his book *Architecture and Society*. The architecture relies on a phenomenological and sociological interpretation related then with *History of Architecture*, aiming to understand the urban form. Louis Kahn and Hestnes Ferreira approach the process and the materialization of urban form by following these guidelines. The main conclusion of this article is to prevent that architecture, in contemporary thought, do not continue to be associated with the paradox of the beautiful and the ugly.*

Key Words: Louis Kahn, Hestnes Ferreira, classic influence, contemporary thinking.

Introduction

Our reading and comprehension of architecture remain intertwined, with architecture history always supported in Art History tradition, oblivious of social analysis and social and historical identity. Therefore, it is almost impossible to analyse both the architecture and the urban form without comparing them to the classical models. Architecture, art, literature and philosophy history have always determined broad and deep domains.

Louis Kahn and Hestnes Ferreira's fascination with Architecture History and classical models knowledge were essential in their architecture. The purpose of this article is to demonstrate that these two contemporary architects have created their own language of interpretation and implementation of formal relations, simultaneously to the development of their buildings, transposing urban formal analysis to each projected unit's formal development.

The influence of the classical thinking on contemporary architecture

Our intention to map the classical thinking influence is centred on these two architects and how their architecture displays that influence.

Morphology is the result of both configuration analysis and outer structure of an object, in direct relation with the phenomena that originate it. Analysis fits in the sectorial dimension, just as Lamas (1993) refers the street scale, having the author also analysed the dimensions as presented by Rossi and Tricart.

The proposed formal analysis is based on the four aspects presented by Lamas (1993), the quantitative, the functional organization, the qualitative and the figurative ones.

Studies by Rudolf Arnheim, Kevin Lynch, Christian Norberg-Schulz, Francis Ching, Josep Maria Montaner, among many other authors, present different models of descriptive and phenomenological analysis of formal configuration.

In his book *A Modernidade Superada. Arquitetura, arte e pensamento do séc.XX*, Josep Maria Montaner (2001) refers to Louis Kahn as one of the architects from the third generation of the Modernist Movement, next to Dennis Lasdun, Jorn Utzon, Aldo van Eyck, Josep António Coderch, Luis Barragán, Fernando Távora, and others. According to Montaner, all these architects assume a different attitude, they intend to incorporate history, to associate it with vernacular architecture, adjusted to reality and its user, thus rejecting both the formalism and mannerism of the international style.

Louis Kahn initiated his professional practice under the scope of the Modernist Movement, but evolved in a different direction from the 1950's on. Kahn didn't relate to the rupture propositions meanwhile adopted regarding the form and planning of the modern city.

Montaner (2013, 41) refers that,

... con un fuerte ascendente platónico, el pensamiento de Louis I. Kahn evidencia la influencia de Andrea Palladio, por su relación entre obra escrita y construida y por divinización de la idea, el orden y la simetría. Y una de sus más destacables aportaciones se refiere al concepto de nueva monumentalidad en arquitectura.

Although Louis Kahn never refers to Martin Heidegger or his *Carta sobre o Humanismo* (1949), Norberg-Schulz writes that he intends to find the projecting form reasons and their theories, in light of Heidegger's philosophy. The text is rather surprising, once that, just like Hestnes Ferreira does, it mentions that Louis Kahn did not reveal his source of inspiration, nor did he talk about his conception process. Hestnes Ferreira mentions in Saraiva (2011, 287),

Kahn não defendeu princípios que depois renegasse, havia sempre uma evolução, o pensamento dele flutuava, evoluía, assim como evoluía a arquitetura dele, criando novos conceitos e espaços. A coerência com que destacou nessa altura a importância da arquitetura moderna, dado o seu contributo para a renovação da arquitetura americana e para si próprio, nos anos trinta e quarenta, levou-o também mais tarde a ser dos primeiros a criticar a arquitetura moderna, nos anos cinquenta.

Ignasi de Solà-Morales states that ethical humanism and aesthetic phenomenology had their highest influence in 1950's architecture, presenting the reasons for that influence,

Realización personal, producción experimental, plena libertad estética, disolución de la tradición moderna como método racionalmente elaborado serán puntos de apoyo de un sinnúmero de obras arquitectónicas en las que la experiencia individual, la primacía de lo privado, el anti monumentalismo, la incorporación de materiales y técnicas antropológico-vernaculares, la búsqueda, en definitiva, de un grado cero para la arquitectura. (1991,33)

Although he wouldn't say it, Louis Kahn used Beaux-Arts notions, namely the central plan and the centrelines, even if only as starting points that would then be overcome by other factors. Hence the need to travel, to know, to register and understand the classical civilizations, having stayed in Europe for two long periods. This same need was confessed and felt by Hestnes Ferreira.

The sectorial dimension in works by Louis Kahn and Hestnes Ferreira

According to Kahn, the architectonic project process is divided in two distinctive stages that alternate throughout the process: the conceptual and the material stages. The process initiates from the production of a conceptual image that sets the basic principle around the project essence and to which all other generated elements are subordinate.

In terms of formal and conceptual process, there is continuity in Hestnes's process, when compared to Kahn's.

Design, order and form are understood as part of the formal development process, where geometry and formal hierarchy allow to define the character and the essence of the project.

To achieve the purpose of this article, we compared a building by each architect, Kahn's Indian Management Institute (1962|1974), in Ahmedabad, India, and Hestnes's Casa da Cultura da Juventude de Beja (1975|1985), in Portugal.

The suggested formal analysis is based on the previously mentioned four aspects presented by Lamas (1993). However, we will name them design | order | form, in dialogue with the function, the spaces quality and the aesthetic communication.

Design | order | form

Even though these projects' dimension is sectorial, in both projects the architects structured them as elements of transition between the street scale and the neighbourhood scale or, as referred to by Lamas (1993), the urban dimension.

According to Kahn and Hestnes, form is always associated with a set of parts that determines a whole, providing the final result with a strong sense of unity.

This strong sense of unity is the result of an evolving and cumulative process. In it intervene the formal, conceptual and material processes, the latter making the whole set visible.

Louis Kahn defines design as something circumstantial, order as what determines appearance and form as something that does not materially exist, something that can be understood as pre-form.

To Hestnes Ferreira, design, order and form are concepts that interrelate and complement each other, willing to overcome the conceptual process.

With the square and rectangular forms, Louis Kahn usually defines the unit. It is through repetition and the proposed relation between units that he obtains the building, granting its unity and formal coherence.

In a line of continuity with Kahn, also Hestnes finds formal coherence in geometry and unit exploration.

This analysis helps to reinforce the formalists' idea over the functionalists' one, that is to say that form in both architects' buildings is much more than a consequence of a function.

Analysing the quantitative aspects in both the Indian Management Institute, in Ahmedabad, India, and Casa da Cultura da Juventude de Beja, according to Lamas (1993), there is a very unique and cohesive reality, developed and tested by Louis Kahn and followed by Hestnes Ferreira.

Dialoguing with Function

This institute's programme would reveal itself to be comprehensive and at a large scale. It included classrooms, administrative areas, a library, students dormitories, faculty and workers residences and other services and premises.

As always, the first thing Louis I. Kahn would do would be having a look into the programme and rewrite it according to his ideas for each space. He wouldn't be intimidated by its restrictive character nor its dimension.

From the beginning, Louis I. Kahn would exhibit a visible distribution according to the spaces required by the programme, dividing the project into specific areas, as he had previously done in La Jolla, at the Salk Institute for Biological Studies. Such a division assumed a hierarchy and simultaneously pointed out the main structure, the school building – although Louis I. Kahn never referred to the spaces in a differentiated manner, as they were all equally important -, where all the school community's functions would concentrate. This hierarchy and space division are only noticeable because Louis I. Kahn has always based his project ideas on one of his fundamental concepts – order.

The school building solution would suffer the most modifications, as it held numerous functions. Kahn's final version would be presented in 1972, although some areas would never

be built. In this plan, his order principle can be observed, as well as a slight symmetry. Its contours resemble the rectangular shape Louis I. Kahn had envisioned from the beginning, creating a united space in which all parts are intertwined. The different functions gather around a central area, the court, where students and teachers should meet. *'The court is the meeting place of the mind, as well as the physical meeting place.'* (Kahn apud Brownlee e De Long, 1997, 163)

Montaner (2002) describes Louis Kahn's ability to differentiate spaces and functions also through the proposed construction system, introducing the double façade, also referred to as membrane wall (Saraiva, 2011).

It is interesting to understand that central spaces assume utmost importance in Louis I. Kahn's architecture, which would be related to his fascination with Italian squares, which he repeatedly drew during his travels to Europe. He was able to capture the essence of those meeting areas and to build them in his works. This same fascination is also present in Hestnes Ferreira's work, in particular regarding Casa da Cultura da Juventude de Beja.

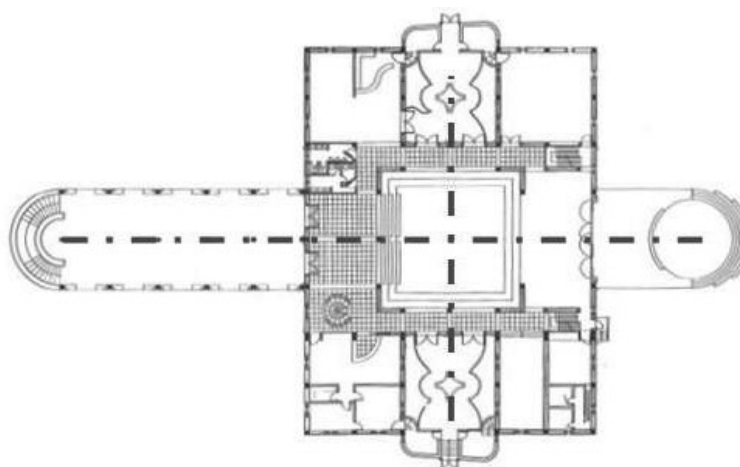


Figure 1. Floor plan, main symmetry centrelines_ Casa da Juventude de Beja.

Casa da Cultura da Juventude de Beja (Picture 1) was the first construction of its kind to be built after 25th April 1974. Because of its use specificity and the population it was addressed to, Hestnes Ferreira intended it to have a festive atmosphere.

Its privileged location, making it visible from every angle, has reinforced its sense of centrality, which has contributed to its formal feature, intensely symmetric.

The central building includes a court at a lower level, from which all other areas develop, clearly representative of both serving and served spaces. The constant search for these two spaces translates into projecting in a continuity line with Louis Kahn.

Spaces quality

Louis Kahn's architecture assumed a constant search for materiality, implying that the choice of material was much more than its function and its technical characteristics.

Materials were used according to their formal and expressive possibilities, simultaneously staying true to them and also to the construction systems, by not hiding them.

This attitude matches Frampton's (1996) definition of Critical Regionalism, assumed by Louis Kahn and followed and sustained by Hestnes Ferreira.

In both architects' work, materials respect the interaction between the light and themselves. The surface texture definition, and how it reveals the light, intensifies even more the proposed space quality. We can say that the revealing of the materials' secret qualities depends on the

shadows that occur when the light diverges from the surface and on how the material absorbs the light.

In both these architects' work, expressiveness is directly related to the concept of light, as the combination between light and shadow highlights the formal composition, originating volume effects on the façades.

According to Leland M. Roth (2005, 77), Louis Kahn stated that light is the most important and significant element in the perception of an architectural work, and as such it should be integrated and worked upon according to its potential.

Urs Büttiker (1993) developed a thorough research on the effects of light on Louis Kahn's work, having created analysis diagrams. In the same line, we present a similar analysis on Hestnes Ferreira's work. (Saraiva, 2011)

Both Louis Kahn and Hestnes Ferreira reveal extreme care towards comfort and quality standards in their work. The pinnacle of this comfort is achieved through the interaction between interior|exterior they suggest in association with the materiality.

In this interior|exterior interaction, the significance of the openings in the built architecture should be highlighted. The way Louis Kahn and Hestnes Ferreira capture the vertical light sets them apart from other architects by their use of geometry in the opening, that is its dimension and form.

Hestnes Ferreira, in his Casa da Juventude de Beja, (Picture 2) materializes this interaction including a small skylight in the cupola centre.

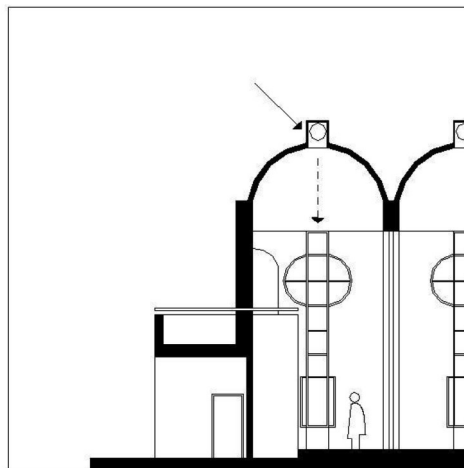


Figure 2. Light entrance scheme _Casa da Juventude de Beja.

Vertical light, as used by Louis Kahn and Hestnes Ferreira, assumes two possibilities and consequently determines two differentiated light spaces.

The first one is related to large scale interior spaces, enabling the intensification of the beam of light projection; the second one occurs when the opening is smaller, directing and intensifying the beam of light, increasing the luminous concentration in one point.

As we can see, the form and dimension of the opening intensify the beam of light, at the same time that they increase the lightness concentration in one point.

According to Hestnes Ferreira, Louis Kahn defined silence as the key to the understanding of architecture.

Kahn, in his drawings for the *Architecture: Silence and Light* conference, defined silence as the wish to be|express, and the light as the wish to be|make. In his perspective, silence also depends on the light diversity, introducing the concepts of *Darkless* and *Lightless*.

Aesthetic communication

Local construction tradition was a defining element in these architects, who have always projecting in respect to it without mimicking it.

Along with this tradition, the respect for the structure and its material is another essential aspect in aesthetic communication.

In Casa da Juventude de Beja (1975|1985), Hestnes Ferreira uses cloister vaults inspired by traditional domes from Alentejo to cover the building, in a total of twenty domes. Brick assumes a double feature, as both structure and coating. The work was so thoughtful that to this day the quality and final image of this element is well preserved in the global context of this building.

Louis Kahn, in his Indian Management Institute project, in Ahmedabad, included the traditional brick arch in the 20th century architecture vocabulary.

The Indian Management Institute buildings translate an unparalleled spiritual quality. This ability in Kahn's work relies on the constant dialogue between light and silence.

Among the different architectural elements, silence can be interpreted as the one that links and synthesizes Louis Kahn and Hestnes Ferreira's works.

Kahn establishes a relation between the concepts of light and silence. Silence represents what is not there, and light what is.

In both architects' work, silence translates into the simplicity and neutrality of spaces and is achieved through the absence of ornament and effortlessness and clarity of the form. Their architecture is defined by homogenous spaces, valued for their light and silence. Both architects convey a Monumental architecture. The Monumentality concept can be defined by the way the building manifests itself, by the identity it transmits, by its use of scale, by its interaction with light and by the way it rouses a reaction.

Conclusions

The university campus in the Indian Management Institute (1962|1974), in Ahmedabad, may be understood as a synthesis of buildings within the comprehensive work of Louis Kahn.

According to both Hestnes Ferreira and Louis Kahn, each architectural work should be simplified, allowing to exclude any element that might confound its reading, in order to achieve its purest aspect.

In part, the range of timelessness in Louis Kahn and Hestnes Ferreira's architecture is a result of their own capacity to observe and reflect on the two most important and always existing entities: nature and Man.

In the perspective of Campo Baeza (2013), the desire that architecture persists in time depends on its capacity of persisting in the memory of Men.

Beauty may only be achieved when architecture is true in its Conception, idea and materialization. This kind of beauty shall not be related to the beautiful and ugly paradox. According to Nesbitt (2008), in 20th century architecture, the reference to beauty and to sublime was repressed both by scholars and architects, eager to break from the past.

Campo Baeza (2013) notices the concept of time in its relation with history, as presented by Heidegger. He summarizes every architect's ambition to accomplish an essential work, able to transcend them, to exist as a part of history and to persist in time.

The truth and beauty motto '*Design with beauty, build in truth*', that features in the London's A.A. Architecture Association coat of arms, is the perfect synthesis of Louis Kahn and Hestnes Ferreira's work analysis.

Louis Kahn's architecture is formalist, intense and true, simple but not minimal as it unveils the essence of architecture.

Hestnes Ferreira, like Louis Kahn, does not project dependent on a style, a trend or a mainstream. By repeating some elements, he creates a unique signature and sets aside the Portuguese national scene. Assuming his own authenticity, his path is the result of a continuous search for the architectural essence.

Acknowledgments

I would like to thank the architect Raúl Hestnes Ferreira for his availability and for providing me with all the necessary material, as well as for all his support throughout the research process. Also significant were the interviews in his Lisbon office, on 12th October 2009 and on 1st April 2010, included as attachment in the doctoral thesis. (Saraiva, 2011).

References

- Brownlee, D.B., De Long, D.G. (1997) *Louis I. Kahn: In the Realm of Architecture* (Thames and Hudson, London).
- Büttikler, U. (1993) *Louis I. Kahn – Light and Space* (Birkhäuser, Berlin).
- Campo Baeza, A. (2013) *Principia Architectonica* (Caleidoscópio, Casal de Cambra).
- Frampton, K. (1996) *Studies in tectonic culture: the poetics of construction in nineteenth and twentieth century architecture* (MIT Press, London).
- Frampton, K. (2008) *História Crítica da Arquitectura Moderna* (Martins Fontes, S. Paulo).
- Freitag, M. (2004) *Arquitectura e Sociedade* (Dom Quixote, Casal de Cambra).
- Heidegger, M. (1962) *Being and Time* Transl. by John Macquarrie & Edward Robinson (SCM Press, London).
- Lamas, J.M.R.G. (1993) *Morfologia Urbana e Desenho da Cidade* (Fundação Calouste Gulbenkian, Lisboa).
- Montaner, J.M. (2001) *A Modernidade Superada – Arquitectura, arte e Pensamento do séc.XX* (Gustavo Gili, SA, Barcelona).
- Montaner, J. M. (2002) *As formas do século XX*. Barcelona (Gustavo Gili, SA, Barcelona).
- Montaner, J.M. (2013) *Arquitectura y crítica, 3ª edición* (Gustavo Gili, SA, Barcelona).
- Nesbitt, K. (2008) *Uma nova agenda para a Arquitectura* (Cosac Naify, S. Paulo).
- Roth, L.M. (2005) *Entender la Arquitectura: sus elementos, historia y significados* (Gustavo Gili, SA, Barcelona).
- Saraiva, A. M. (2011) ‘A Influência de Louis Kahn na obra de Hestnes Ferreira’, unpublished PhD thesis, Universidad de Coruña, Spain.
- Solà-Morales, I. (1991) ‘Arquitectura y existencialismos: una crisis de la Arquitectura Moderna’ (<http://hdl.handle.net/2099/1288>) accessed 11 May 2010.