Denys Lasdun and the project for the University of East Anglia

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The University of East Anglia, located in the city of Norwich in Norfolk County, east of Britain, was born as one of the so called 'New Universities' that were developed during the second half of the twentieth century in England.

Funds for its construction were ratified in the summer of 1960 by the University Grants Committee . A year later, in July 1961, Frank Thistlethwaite, who was then a history professor at the University of Cambridge, was appointed first Vice Chancellor of the University of East Anglia, becoming prominent in the University Council on the role for development of guidelines and parameters fixed for the constitution of the new university. Contemporarily considered by some a bold experiment, and even perhaps audacious, Thistlewaite's determination to create a new model of university in England, alternative to the previous ones[2] and that could be in tune with current needs, found his best partner in Denys Lasdun to successfully translate this new concept in architectural terms .

It was customary for construction of the *New Universities* to answer a phased approach[3] in accordance with the logic of gradual incorporation of both students and faculty staff, as well as with the subsequent provision of funds that would be taking place. However, the case of the University of East Anglia is notable for the clarity with which its design denotes deeper thinking on this issue, so that in addition to fulfill the required construction by stages, architecture is understood as an unfinished entity itself, in constant development and adjustment.
Here we find an architecture that incorporates this quality of change as an intrinsic and necessary condition to provide better service to society status, and that aims to make from this feature a desirable permanence in its entire existence.

In Denys Lasdun's design there is a deep consideration on the question of architecture that accepts being an open work in for all time, and it must be stressed that this assumption is reflected from the very phase of the design. When was Lasdun asked by a reporter at the public presentation of the project about which was the style characterizing the buildings composing the university set, about what specific design would they show, the architect replies:

Well, there are no buildings in our concept, as in the sense that you mean that they have a visible form. We are solidly charged with trying to put our house in order, with trying to see where things should go, how people can move between buildings, how buildings can grow. And we have put down the anatomy of these ideas. And it will take many months to design these buildings, specifically.[4]

That after a whole year of work Lasdun refused to present any compelling image, some collage or photogenic perspective for publication, is really significant and demonstrates his commitment to the thought of architecture as a work in progress.

Consistently with the determination to create an architecture that foresees itself changing along the time, Lasdun focused all his effort, not to resolve a formal definition of the outward appearance, but to the establish the right inherent laws that set its structure. What Denys Lasdun called anatomy[5].

The project was born, therefore, from the inside towards the outside as an organism, slowly resolving the adequate intrinsic correspondence that should occur between the way of life of users, place, and a particular architectural space that gave them support. All of it, in a progressive path that followed organic logic, and that Lasdun applied both to the evolution which the project took itself in its various versions, as well as to the construction and physical growth he posed for the formation of the University along the years.

Natural sciences' influence and legitimacy of (the) organic architecture

Denys Lasdun's architecture has traditionally been assessed by questions related to the classical view of architecture. It has being highlighted his expertise in handling the architectural masses and vacuum, its sensitivity dealing with treatment of rhythms, an outstanding capacity to produce high spatial quality projects, the elegance of his building forms and the innovation creating a tectonic language of his own. However, biological allusions and references to the natural world can be oftenly found in Denys Lasdun's discourse. This aspect, that has not been sufficiently studied so far, takes a crucial and active role shaping his architecture. One of the first characters to emphasize Lasdun's affiliation with the world of organics was Alvin Boyarsky. Who would become in few years illustrious dean of the Architectural Association, explained in 1965, through his article *The architecture of etcetera*[6] Denys Lasdun's architecture as a series of conceptually complex projects, full of resonances, references and multiple meanings that linked them with both the immanent and ancestral essence of architecture, as well as to the more specific and contemporaneous understanding of architecture as an organic entity. Denys Lasdun himself had expressed early and clearly his attention to the natural world by establishing as explanation about his project for the Infant and Primary School for Hallfield Estate in London, developed in the early years of the fifties, a parallel between the architectural layout of its assembly and the biological structure of a plant (ii). Boyarsky attempts to emulate the same reasoning for the project of the Royal College of Physicians in London designed by Lasdun five years later, in an attempt to clarify its genesis. To do this, encouraged by the words of Lasdun on the role granted to the Board of Advice as the heart of the proposed building scheme, Boyarsky makes a personal interpretation of the Vitruvian[7] Man that is matched to the plan of the building in order to explain Lasdun's development of the project as an organism in which hierarchical circulation patterns lead to its various organs (iii). In similar terms, Boyarsky also explains the project for the University of East Anglia.

Beyond the actual authenticity that the latter parallelism may have, the use of biological analogy as a reference for the setting of plan configurations in projects should only be understood as a partial explanatory device in Lasdun's architecture. The architect manifests allusions to natural structures that always avoid direct formal translation. Lasdun's perception of natural world goes far beyond verbatim copies of shapes and is more related to the idea of structure and process. The drawing of the plant that Lasdun used to explain the configuration of the Hallfield School was an invented composition[8]. It was really an ideogram formed by the various elements that are part of most plants dealing with them as concepts, and delineated ex profeso to explain the architectural arrangement that his building kept; surely, even drawn subsequently to the previously orchestrated design. Two key aspects were the ones that mostly interested Denys Lasdun about the natural world. On the one hand, Nature ability to generate highly complex structures that are also able to uphold themselves over time simultaneously as diverse and flexible. On the other hand, Nature revealed itself as an inexhaustible learning source for the various possibilities of growth and evolution; two qualities that would be present, in varying degrees, in all of Lasdun's creations in the second half of the twentieth century.

It is no fortuitous coincidence that in the same year 1951 in which Denys Lasdun begins to develop his project for the Hallfield School the exhibition '*Growth And Form*' (iv) takes place at the Institute of Contemporary Art in London. It was organized by the artist Richard Hamilton finding inspiration in Darcy Wentworth Thompson's book *On Growth and Form*, a book to which he was introduced by his friend Nigel Henderson. This influential exhibition was organized in seventeen sections showing various aspects of form and growth of natural structures at all scales, from the microscopic to the astronomical. Approach to the subject performed by the artist shares important insights to the assimilation of the issue of the natural world made clear by Lasdun: an emphatic interest in processes of growth and in dynamic models of development in time, together with an attitude of non-dogmatic approach to Nature.

The fact that Lasdun dared in the early fifties to defend and explain his project through a formal analogy with the vegetable kingdom, which was so far from the criteria followed by 'Functionalists' modern conservatives or from usual lecorbusierian's analogies made with objects such as ocean liners or vehicles lauded as symbols of human progress, demonstrates his deep conviction that a paradigm shift must occur in those years. His thinking was not the reflection of a single position but was in clear alignment with the whole generation of young British architects[9] .They sought to review the basics of modern architecture origin, and they expressed great interest in other alternative architectural ways as opposed to the best known academic vision conveyed in CIAMs previous to the Second World War.

If influence of natural sciences managed to unloose in Lasdun a deep interest in growth processes that led him to raise his works as evolving entities, the organic architecture trend current in those years gave him the tools to give them meaning. Faced with the more scientific rationalism that modern masters applied, organic stance was positioned as an alternative understanding of modernity. It rejected universal solution and indiscriminate application of tabula rasa while defending, on the contrary, a more particularized and less technocratic architecture that prioritize local status and accordance with climate, culture and place approach.

This organic architecture philosophy that had on the American architect Frank Lloyd Wright its main founder, had caused significant impact in Britain since 1939, when Wright visited the country trying to explain its architecture[10] . But it is the Italian critic and architect Bruno Zevi who gives the final push to the organic stream. With publication in 1950 of the book Towards an Organic Architecture, Zevi legitimates worldwide the option of a new architecture that abandons constraints of Functionalism , that is released from stylistic dictates and from inhibitions of orthodoxy. Organic architecture is vehemently defended by Zevi as the leading way out for the future because in it, man is repositioned again as the center of the discipline. But it should be noted that this man Zevi refers to, is not a standard or prototype man, the one to which Modern Movement focused under widely hygienic criteria, but it is, on the contrary, an individual and particularized man whose wants and needs architecture must fulfill necessarily in each case. Architecture then grows from a close connection between user and space, thereby acquiring the understanding of patterns of life a leading position to determine architectural form. Lasdun shows apprehension of this organic guideline when he states categorically that *there can be no form in the architecture , which is unrelated to human needs* .

Biological disposition, devoted to the idea of growth and change, coupled with the rise of the organic attitude that praised human and social dimension, converge in the broader concept of 'life' through which Lasdun maintains an holistic view by means of which he could stand out from the comfort of traditional thinking of architecture as a set of fully finished buildings as closed systems. Thinking about architecture as an organism, helped him to discard specific formalization of initial images about building appearance and allowed him to

focus 'on the needs of the building, both current and future'. Lasdun aims to raise a design philosophy that supports an architecture that "is on the side of life, that is to say, it is not static but changing'.

Genealogy of a Proto-organism

This concept of inbuilt flexibility may prove as compelling an influence in the shaping of buildings as was the rediscovery of the Vitruvian norms to Reinassance.[11]

Throughout Denys Lasdun's architecture since the beginning of the second half of the century one can find the idea of an inconclusive architecture. Away from the perception of the idealized, perfectly composed and canonical work, both nominated by the International Style as well as by New Palladianism, it presents itself as a definite structure but always willing to change through empathetic procedures established with its users and with context.

Research conducted by Lasdun through his projects of the fifties, is partially rescued and somehow summarized in the work of the University of East Anglia, the most complex organism developed by the architect and at a scale never handled before in his career.

Denys Lasdun's first sketches drawn for the University of East Anglia in 1962, show that his thinking initially channeled the development of the University over the minimum period of ten years mentioned, establishing a direct identification between each temporal step and a related particular built form. Therefore, he generated three stages of construction embodied in three units nearly identical in arrangement and size that could be successively built on. Each unit was self-sufficient, hosting a mix of educational equipment and part of linked residential accommodation, and showed a consistent self-referential character reinforced by perception of each unit as volumetrically isolated, surrounded by an empty space and specifically avoiding connections between them.

Morphology of pieces proposed pursue a spiral [12] arrangement, what allows Lasdun to establish a preliminary order in which program can be placed, while maintaining freedom to subsequently determine the final actual dimension of each piece to build following a growth in size or spread according to specific requirements.

Lasdun here takes the idea of a linear building layout based on a spiral that he employed a few years ago for the Fitzwilliam College but reversing the eloquence of planned programs there.

Continuous and neutral building is now not formed by university accommodation occupying the perimeter but it is filled by communal university building equipment, while residential use is provided in terraced blocks with greater visual and perceptual expressiveness.

In the following sketches that Lasdun kept drawing, the so clear spiral path disappears and becomes inaccurate. An effort to try to set up a more complex combined entity that hosts the three units initially raised can be appreciated.

Through a much loose overall geometry, the various elements of the project for the University, primarily student housing, teaching area and connections between them, find a comprehensive arrangement in which they remain deeply interrelated but without losing their individual character. The three empty spaces endure acting as regulators of the informal shapes that linear buildings start to have. Centrifugal and centripetal forces seek to find a balance to resolve a porous but compact, diverse but unified solution.

The first scheme for the final arrangement that Lasdun and his team outlined for the University of East Anglia is materialized in late 1962 in a series of drawings and in a model that reflect a new complex organic synthesis in the aim pursued by Lasdun: indivisible but also varied and rich in nuances. Willing to be flexible in its design to adapt to sloping ground and to get the best facing position, the project draws an order not disciplined by axes and trace-regulators but according to some internal morphological laws of generation and growth paths. A growth that Denys Lasdun directly describes as organic and through which he pretends to develop a *planning to show the latest form of what the University could become, but in which each step is worked out in detail as an entity in itself.*

Pieces are linked by a relaxed geometry that intersects with equal importance full and empty spaces. Teaching equipment is housed in a large linear block of regulart width that ramifies recalling proposals developed by Alison and Peter Smithson for *Cluster City*.
Following the same scheme, Lasdun intended that his buildings carried also inside their section the *streets in the air* raised there. A series of horizontal routes are thus generated opposed to ground slope that multiplied connections between accommodation and teaching departments, achieving on one hand, a high compactness seeking to control dispersion in order to protect the landscape, and at the same time, allowed to connect the buildings at various levels avoiding or minimizing the use of elevators. The interconnected network was also conducive to flexibly respond to the objective of growth and change.

After completion of the first proposal plan in 1962, Lasdun holds further meetings with members of the Academic Council that make him change the project. From conversations kept Lasdun extracted specific conditions following the pedagogical approach and particular needs of each department that he undoubtedly transfers into morphology [13]. These new circumstances and requirements are absorbed, and the history of the project for the University of East Anglia has a new chapter in its commitment to be an open process.
The joint effort in the work of the architect with the Committee and the Council, and Lasdun's deeper knowledge of the guidelines of the university model, did improve and refine the architect's proposal.
Each of the elements forming the arrangement is radicalized, clarifying the scheme both functionally and morphologically. The final overall shape resembles the grouping of the Hallfield School, as indicated by William Curtis [14], but furthermore, as it is also envisioned in Lasdun's ideogram and according to the organic logic, each type of activity and user did require an appropriate and singular architectural space in Denys Lasdun's thinking. In this second proposal for the University of East Anglia, Lasdun simplifies structure assembly creating five types of elements with distinctive morphology, derived from the characteristics of the communities their users represent and from life patterns associated with large groups of activity hosted: teaching equipment, large pieces of representative and community use , student housing, university staff accommodation and a network of pedestrian connection, which appears in this proposal as a component in its own right and identity.

The main change between the two proposals designed in 1962 and in 1963 is centered mainly by the educational area. Thistlewaite and his teachers employed defended a pedagogical position that blurred traditional boundaries between science and the humanities, which sought to promote a comprehensive and interdisciplinary teaching where specialization was intensely cross curricular. Consistently with this approach, Lasdun gathers all of the teaching departments in a single large and more compact linear building where boundaries between the various faculties are consciously dimmed accordingly with the study methodology. Lasdun creates a meandering unitary space which is called by himself as the ' teaching wall', where the various rooms of medium and small size required by each department can be placed pursuing a clear intention to supply internal flexibility, using a web of interior light partitions. This continuous arrangement is disrupted about every 50 meters by spaces hosting vertical communication cores, located as in the case of the Hallfield School, right where in geometry direction swerves. They encompass main entrances to faculties, while being connected with the network of elevated pedestrian outdoor platforms as well as communicating the mid level of the teaching block with the rest of the other areas that make up the whole of the University. Alternately, axes established by these communication sectors extend in some quadrangular blocks that host the largest rooms of each of the teaching departments and schools. These pieces have a very similar dimension between them and are conceived as pivotal nodes through which specular growth can occur towards north. This is a multiplication scheme that recalls that one used by Lasdun and Drake in their competition proposal for the Churchill College, where to the possibility of linear extension on the edges already conceived, a growth in symmetry along a longitudinal axis is added, creating a double possible extension for teaching program.

Larger isolated buildings of the proposed set are intended for the representative bodies of the University as the Vice-chancellorship and the Senate House, associated both in one volume, and for those multitudinous spaces such as the Library or large Lecture Halls. The Library is conceived as a rectangular box with a central core and structure on the perimeter that frees up internal space while working as a sunscreen. It arrangement allows an extension even in four stages.
University staff residences gather in thin rectangular blocks developed under horizontal bands of pitched roofs, and that by its north-south directionality, form a second ring secluding collective facilities from student housing environment. Access to staff accommodation happens through the elevated network of pedestrian paths coming from the 'teaching wall' that unify and create a whole alternative movement separate from the vehicular one running on the ground. Due to platforms' particular shape, this high connection in the air reminds of the web designed in Berlin Haupstadt draft by Alison and Peter Smithson with Peter Sigmond. Regarding its conception as spaces that enable social and intellectual relationship between students and teachers and because of their functionality as arteries of the building set that host in their layout energy systems that serve buildings, it makes reference to the project for the University of Sheffield developed by the same authors .

Student residences are the last pieces consciously singled out from the organism. Its growth pattern is produced by addition of a basic housing unit, which is repeated to be standardized and built with prefabricated concrete panels . This cell is grouped on strata forming groups of twelve or fewer rooms that share services, toilets and laundry facilities, as well as the so-called *breakfast room* , which occupies the central position between the two wings of this basic habitat. Each layer thus arranged, is set back northwards producing a figure like a ziggurat, so that rooms enjoy large shared terraces with open view towards landscape while service areas and stairs colonize remaining spaces attached to the north facade. This is a composition previously tested in the proposal for the Churchill College , but that, in this case, leaves its linear nature and generates detached pieces arranged forming a bow and that are connected forming a cluster. An ingenious three-dimensional sectional interlock produced between rooms significantly reduces the height of the assembly, which along with the double entrance, from ground floor reaching a mid level and from elevated platforms to arrive to the higher level, allows complete removal of elevators in the building group.

What was finally built from the total University designed by Lasdun before he was relieved in 1968, is close to a third of what was designed in the global model, but it constitutes in itself a seminal breakthrough, a microcosm of the potential architecture and urban landscape that guides the genealogy of the University. It is in this core where one can find an example of each of the elements that form the whole building set interrelated, this is the hub that functions as a proto-organism in which one can discover the *seeds coded into it of change, both as to the use of the rooms in the building and- more important perhaps- anticipating what the surroundings may become [could have been] in say, twenty years' time.* [16]

The study of the evolution of the Project of East Anglia University shows that 'flexibility' exalted by Thistlethwaite in the public presentation of the project[17] , was not only achieved in the suitability of the architectural final solution to allow extension of the University over decades, but it was also accomplished through its inherent ability to assume internal modifications and to deal with unpredictability in various stages of its life. The aspect of *consistency* distinguished in the proposal designed by the team of architects was highlighted by the Vice Chancellor as the virtue of an organization that sought to retain unity in diversity along its variations over time. But we can say that the scheme is also notable as a clear will to establish the basis for an architecture whose future is tied to the life it supports, since it arises as a response to a direct link with the place, the type of program, educational lines and lifestyles; bringing to reality an adaptive *map of human relations* than the concept of the University of East Anglia encompassed.

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DENYS LASDUN
BRUTALISM
ORGANIC ARCHITECTURE
UNIVERSITY OF EAST ANGLIA