

MEMORY AND PROJECTION ON UNIVERSITY SPACE IN SPAIN: FROM SALAMANCA TO CARTAGENA: THE MODEL IN TRANSITION

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The thematic framework proposed by the *Universitat de Lleida* for the *VIII Semana de Estudios Urbanos* (8th *Urban Studies Week*) is entitled *University Cities and Urban Campuses*. In my opinion, this title offers an invitation to reflect upon the typological panorama presented by the physical space of the university.

My own modest contribution—which takes advantage of the inertia derived from an in-depth study which began back in 1990—centres on the reflections that Spanish universities could make with respect to such an important question. The most synthetic readings of this subject pivot around two basic parameters: the internal organisation of each complex; and the relationship between city and university with the traditional dichotomy between integration and segregation.

In order to apply the appropriate degree of rigor when attempting to interpret the evolution of the different models implanted in Spain, it is necessary to conduct a parallel observation of the historical events associated with similar processes at the international level. These have resulted in the highly varied range of metamorphosis typologies manifested in the architecture of academic institutions since their first appearance in the late Middle Ages. On the chronological journey from the creation of the *alma mater* at Salamanca in the 13th Century to the highly significant university-city project of Cartagena, it is possible to trace a whole range of realities that together constitute Spain's university experience. In so doing, it is possible to recognise some periods that were characterised by a greater degree of authenticity and cultural commitment and others that were influenced by the eclectic importation of solutions alien to Spanish culture.

This paper and debate on *University Cities and Urban Campuses* in the context of Spain, follows the theoretical scheme laid out below. The third and final section proposes a series of criteria for excellence that should govern the design of a future “*Arquitectura del Saber*”.¹

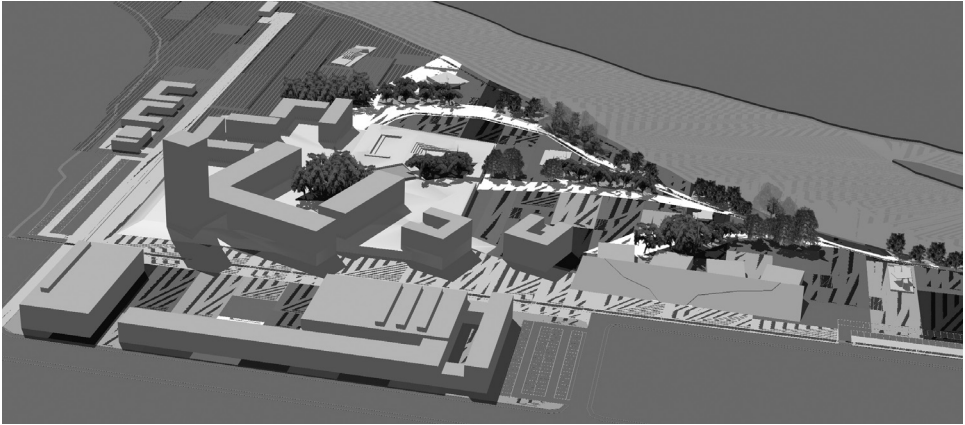
1. Particular analyses
2. Global reflections
3. Projection of criteria.

1. “Architecture of Knowledge”.

In light of the great importance of the overall mission, the final objective is that of encouraging an appropriate degree of reflection about how to optimise constructed solutions.

PARTICULAR ANALYSES

Faced with such large extents of both space and time as those presented in the transition from Salamanca to Cartagena, it is necessary to identify a series of



Universidad de Salamanca - New campus of Villamayor (P. Campos).



Old façade of Universidad de Salamanca, 1529. J. Alava (P. Campos).

different levels of urbanistic-architectonic analysis that can be equally applied to the full range of different locations. Such a methodology allows individual approaches to be brought closer together and has the added advantage of allowing comparisons to be established between them.

Conditioning factors

These are the many and varied factors and circumstances whose presence has influenced the existence and configuration of each academic location.

They may be natural, they may relate to the urbanistic environment, or they may be the result of adaptations to local culture. Similarly, they may be the result of institutional policies, have been determined by certain previously existing circumstances, or have derived from the presence of heritage icons.

In general, however, the material circumstances that have served as conditioning elements at the sites themselves can be understood as strong arguments in favour of the organisation of university establishments. Even so, their greater or lesser degree of integration within the wider scheme of the complex depends upon the particular circumstances of each specific case. There are cases in which this happens in a clearly voluntary way, while in others there are clear signs of independence from, and even ignorance of, the overall scheme.

As far as those located on the exterior are concerned, their presence tends to induce the creation of links between peripheral spaces and the architectonic complexes of universities in such a way that—in the majority of cases—their internal morphological definition does not specifically adapt to its adjacent context.

When selecting a specific type of university establishment, all of the previously mentioned factors – together with other possibilities of a more accidental nature – may, to a greater or lesser degree, have an influence upon the resulting spatial pattern. Thus, an itemised revision of all of these contributing factors would provide arguments in favour of, at the very least, channelling architectonic planning along lines that are free from suggestions and/or pressures that are not directly connected with the university administration.

Urbanistic-structural typology

This section, and the next, develops the main body of this work. In it, an attempt is made to describe and compare the specific characteristics of urbanistic structure that determine the typological nature of each university complex.

It would be true to say that there are probably as many morphological classifications of the physical spaces of universities as there are authors who have approached this topic. If a single common denominator can be found amongst all these models, it is the recognition of their evident diversity. This diversity is further increased by

the addition of the inherent complexity that results from the unique circumstances that characterise each specific project.

Amongst other possibilities, we can identify the following typologies: orthogonal or oblique mesh, detailed nuclear, linear nuclear, polycentric and organic, as well as combinations of these various different types.

To begin with, and from a strictly functional perspective, it is necessary to stress that a fully integrated university complex —with sufficient quantity, substance and variety of uses to give it effective autonomy— represents a highly unusual and indeed exceptional situation within the panorama of today's Spanish university system. Following on from this observation, it is feasible to diagnose a relationship between the quantity and variety of the present uses of a given educational establishment and its degree of isolation or physical segregation from the city with which it could potentially establish links.



Ciudad Universitaria of Madrid (P. Campos).

Speaking on a structural level, in Spain, there is no detectable connection between the physical dimension of a university complex and the number of sub-complexes or modules of coherence that it possesses – understanding the latter as partial environments whose urbanistic characteristics establish their own differentiated personality; as a uniform and logically coherent way of organising their own individual character.

The points of confluence, which could be classified as agoras —and in fact tend to function as such— mainly have a multiple and disaggregated configuration. With too great a frequency, they appear to be subordinated to architectural structures and on an individual basis it is rare to find them forming the centre of the complex. Furthermore, these structures tend to be simply suggested —rather than defined— and often end up playing an inadequate role as residual areas with respect to the general plan. As a result, one of the most urgently pending questions for the Spanish panorama is concerned with increasing the protagonism of open spaces.

The most numerous urbanistic compositions are geometric-orthogonal in style and are endorsed by a potential flexibility that has not always been capitalised upon. The freer or more organic compositions tend to be found in areas that have been conditioned by their remarkable topographical singularity.

The internal organisation of the majority of modern large-scale educational complexes has been structured according to a regular uniform plan, formed by a series of macro-blocks, upon which the different buildings have been erected. It is therefore quite normal to observe an independence of configuration between what constitutes the urbanistic structure and what is purely architectonic.

With respect the most influential foreign morphological paradigms —within the extensive trajectory of university design on a global scale— the similarities that can be recognised in Spanish versions usually reflect mimicking tendencies and timid formal references that lack common conceptual roots. This is particularly evident in the case of North American campuses and their diverse modalities.



*University of Stanford, Palo Alto, USA.
(P. Campos).*



*University of Virginia. Academic Village, USA.
(Univer. Of Virginia Arch). (P. Campos).*

Making this reflection brings to mind the origin of the term “campus” – which on many occasions is employed incorrectly. It is a term taken from Latin, which was first used in association with the University of Princeton, around the year 1770, in a student’s written description of a fire that affected the lands around Nasau Hall. It has also been suggested that the term may have been coined in allusion to the “Campus Martius” of ancient Rome. Whatever the case, it is a specific term that refers to a concrete model for a university establishment in a North American context, and one which also has its own, very specific, historical, institutional and spatial personality.

Architectonic configuration

The scope of the present analysis includes an investigative analysis of the characteristics that are intrinsically connected with the architectural structures contained within the limits of a university complex. One of the main lines for reflection centres on the important links that exist between the urbanistic design of the complex and that of the buildings incorporated within it and an evaluation of the interactions between them.

As constructed volumes, buildings destined for educational purposes assume as many guises in the eyes of those using them as the many and varied occasions on which these same observers encounter them “in situ” and move between them. This fact has much to say in the convenience – or at times even the need – to perceive an urbanistic-architectural complex with all the senses in order to fully understand its configuration. Personal experience gives rise to subjective impressions, which become important tools for judging architectural solutions that ratify organizational intentions at the complex scale and which also, on the other hand, distort their spatial arguments.



Universitat de Girona (Spain). Building of “Les Àligues”. (P. Campos).



Universitat de Lleida, Campus of Cappont. (P. Campos).

Taking quite a general perspective, one option —among many others— might be that of establishing the classification outlined below. This reflects the many and varied individual actions that can be found within such a vast repertoire as that presented by a country's Universities.

The first category to define would be that of architectural homogeneity, understanding this as the uniformity of the typological, constructive and stylistic criteria presented by the different university buildings —whether taken as a whole or on an element by element basis— and as dictated by the needs of each particular case. This homogeneity may be observed in individual (mono-structural) elements, in parts of the complex (partial) or across the complex as a whole (global). The opposite case of heterogeneity, appears at the level of the individual unit (mono-structural) among parts of building complexes (partial) or, finally, between groups of buildings and the guidelines for urbanistic organisation of the academic complex as a whole (global).

In the Spanish context, the criteria for urbanistic structuring respond to organizational guidelines that normally leave quite a lot of freedom for the final configuration of built units. As a general rule, their design tends to be formalized on a case by case basis. This circumstance tends to take on even greater significance as the particular environment's degree of urbanistic consolidation diminishes.

Spanish university complexes frequently suffer the consequences of an evident lack of uniformity. The definition of their built elements tends to somewhat randomly decant for either homogeneity or heterogeneity, yet with the two tendencies cohabiting without any predetermined order. Such heterodoxy could be attributable to three basic circumstances. Firstly, this could be explained by the mutations generally experienced in academic models when they are subsequently translated into architectural projects. Secondly, it could be a result of the coexistence of various different architectural styles, each of which —with the passing of time— has left its own individual mark on the same physical space. Finally, it could be due to the conversion to educational uses of buildings that were originally designed for other functions.

One recurring feature in the most recent complexes is that of the university macro-building. This is a building within which a series of parts or cells —that would have probably been housed in separate units in previous solutions— are brought together at the same point.

As previously mentioned, it is possible to observe a certain degree of dislocation between the expectations projected for university complexes and what is later experienced in the built reality: direct perception holds the key to interpreting these confluences and divergences.

It is also sometimes useful to take note of the significant presence of complementary elements that contribute doses of added personality to the university space. Such is the case of topographical accidents and singularities, artificial landmarks and/or items of sculpture.

The process of evolution

This section focuses on the properties of university complexes that can be recognised after considering the changes that take place over time, whether such changes have been structured through planned operations or have arisen spontaneously during particular evolutionary phases.

The physical complex of a university resembles a living organism whose spatial and temporal continuity and flexibility parallel the similarly variable character of the institution whose uses it harbours. It is important to study the peculiarities that—whether at the urbanistic or architectural level—have influenced its physical development throughout the course of its own particular history. These distinguishable peculiarities will include both those elements that have given it the capacity to adapt itself to increases and/or reductions in size, and others that—whether by action or omission—have imposed restrictions upon it.

Amongst others, it is possible to identify the following evolutionary typologies: polarisation around a nucleus; transformation of previously existing elements; extension and densification of the urbanistic structure; adaptation of buildings not previously destined for educational use; gathering of components around a cell (whether a building or an open space); and finally, collage development. The latter, which is the frequent morphological result of the coexistence of various—but mutually unconnected—forms of normal growth, results in complexes that are quite chaotic in their internal organization.

The study should have a dual focus: on one hand, it should take a global view of the behaviour of the university cell on a macro scale; on the other, it should focus on the strictly architectural parameters inherent in the constructed elements.

Generally speaking, Spain's university complexes exhibit various combined forms of growth that have occurred simultaneously and/or overlapped throughout the course of their development. As a result, the majority of university complexes over a certain size exhibit a collage type configuration. This is the result of various footprints left behind by the different ways of understanding the university architecture that characterised different periods.

Examples of integrated structuring of urbanistic spaces are rare. Even those planned as such from their initiation have been distorted by the passing of time. In cases where vestiges of medium to long term planning can be identified, this is also accompanied—as an almost omnipresent compositional instrument—by orthogonal geometry in the interests of endowing the complex with flexibility and adaptability anticipating unpredictable modifications to the programme.

After observing the current national panorama it is possible to conclude that the major development experienced by universities over recent years has generally resulted in the creation of new complexes, rather than in extensions to, or drastic transformation of, previously existing ones. Even so, it is also true that the latter have continued without any form of continuous solution.

Similarly, it is necessary to stress the recent tendency to resort to the typology of development through adaptation, that is to say, to incorporate previously existing architectural units into new uses that are alien to their original functions. In particular, it should be noted how—in many cities—this is occurring with former military facilities, which are usually characterised by their large dimensions and the fact that they occupy very central urban locations.

General Reflections

Once the range of different complexes has been analysed on the basis of diversified thematic environments, it is best to go on to take an overview of the urbanistic-architectural scenario. From among the many and varied approaches to the Spanish university as a global concept, the following analysis selects and outlines several specific lines of thought and evaluation, mainly centring attention on some of the most recent projects.

The roots of the Spanish university are essentially bound to the city

In the course of a historical review, it is clear to see the close ties that exist between universities and civic organisms, with facilities mainly being located within the old quarters of the city and in areas of the metropolitan *ensanche*.² This umbilical dependence largely derives from their habitual lack of functional completeness and from a certain conceptual eclecticism in the planning of new academic centres.

Differentiated large-scale educational complexes—and especially those of relatively recent construction—are generally located in areas on the urban periphery that suffer from a low index of urban consolidation. This “neo-peripheralisation” phenomenon is, without doubt, closely related to both the difficulties encountered in finding pockets of available building land in metropolitan centres and the evident fact that—in contrast with the halcyon days of the past—the institution has effectively been relegated to occupying a secondary position on the ladder of socio-economic values.

One consequence of all this is the fact that—fundamentally since the beginning of the 20th Century—the Spanish university has become fully immersed in the dichotomy between integration and segregation; a question that nowadays constitutes the most relevant debate in both the national and European forums.

The Spanish university does not follow a single model: it has a complex and diversified typology

Perhaps one of the clearest readings of the whole university spectrum, in its current configuration, lies in the absence of a single model of how development should be carried out.

2. Normally wide avenues that were originally residential areas on the outskirts of the city, but which may now form relatively open spaces within it.

The varied typologies and different projects do not adjust to a closed definition, but rather represent a series of open archetypes, which incorporate certain local singularities produced by the peculiarities of the environment to which they are linked.

In the case of very large cities, various educational institutions may cohabit, yet with each being dependent upon its own main site. On the other hand, when there are a number of main sites, or several belonging to a single university, it is virtually unknown for there to be any form of common spatial or typological organisation uniting them.

In complexes that have had a prolonged existence, it can be seen how, in the course of time —and without any particular pre-established order— they have gradually accumulated the varied features of more recent constructions. As a general rule, their organisation is limited to mere operations of juxtaposition. The urbanistic personality of each sector tends to ignore both those of others that already exist and those of sectors that are yet to come. It is therefore difficult to detect any constant criteria covering the whole scope of the project.

Regrettably, the successive consequences of such promiscuity among projects tend to produce chaotic processes rather than creating morphologically enriching images.

The Spanish university has recently shown a preference for the compact, macro-dimensional building model

This tendency must be analysed from two different perspectives.

If a historical angle is taken, these “flagships” could be considered as the natural successors to the typologies developed during Europe’s Renaissance period. Their paradigms were *Terribilia* —designed by Archiginnasio of Bologna in 1563—, *Sant’ Ivo alla Sapienza* of Rome —which was the work of Giacomo della Porta in the 16th Century—, and the imposing nave of Paris’s *Sorbonne* —which Richelieu enlarged in the 17th Century. In Spain, they are represented by the university-colleges, and by the *Universidad de Barcelona* —designed by Elías Rogent— and the *Universidad Central de Madrid*, which both date from the end of the 19th Century.

However, a critical appraisal should be made of this phenomenon. This must involve a questioning of how university students can identify with such mega-structures which take the form of immense impersonal containers housing veritable university metropolises that enjoy quite a high degree of autonomy. Leaving aside the conditioning restraints imposed by the construction industry —that no doubt help to explain some of these configurations— it seems clear that the majority have forgotten the additional yet highly important mission that architecture should perform and which goes beyond strictly functional considerations. As the material body of the educational institution, par excellence, their physical expression must display a deliberate emotional attitude and manifest an unequivocal intention to encourage its users to take pleasure in the activity undertaken inside it.

In principle, all of this seems —to say the least— quite incompatible with buildings that are so very distant from a recommendable human scale, and stylistically more

akin to the parameters of the building industry than to the generation of welcoming environments, in both the material and spiritual senses of the concept.

Throughout its history, the Spanish university has demonstrated its ability to find a balance between change and continuity

It is important to recognise the Spanish university's firm commitment to its own evolution, as this has enabled it to steer a course among the countless changes and external interferences to which it has been subjected in the course of its existence. This is evident both on the strictly institutional plane and also with respect to its urbanistic-architectural configurations.

Along the road from Salamanca to Cartagena, the university has undergone a continuous series of transformations, yet without ever renouncing its continuity. After almost eight centuries of university life, this is a quality that, though not always evident, deserves to be fully recognised.

In the course of its eventful secular voyage, the institutional ship has both enjoyed periods of peace and plenty and has had to weather difficult times in which threats to its very existence have loomed menacingly on the horizon like large grey storm clouds. Yet, whenever the future looked bleak and threatening, the fresh wind of utopia was able to carry the ship back to calm waters, where she could continue her voyage. Protected by such a powerful force, the university has continued to receive periodic impulses from tail winds pushing her forwards and into the future. The crew often changes, as does the rigging, and sometimes even the winds and the seas, but the ship of academia always continues on its calm, uninterrupted voyage, and never keels over.

Recent decades have witnessed an important proliferation of newly constituted universities in Spain —both public and private. In part, these have appeared due to the process of political decentralisation of university affairs. Architectural projects have had to rapidly respond to this continuing dynamic, though this has not always been done subject to appropriate planning controls.

The Spanish university displays an ever growing tendency to reinterpret its cultural memory

In the course of its long history, the Spanish university has progressively mutated from the authenticity of its medieval academic and architectural models towards a progressive eclecticism. This has been particularly evident since the early decades of the 20th Century, when a series of working models were adopted that were alien to its cultural roots. Many of these were imported from North American paradigms.

The reproduction of urbanistic typologies that were alien to domestic tradition was accompanied by attitudes of functional retrenchment with respect to them and as a result, such projects were left devoid of essential content and references. In such cases, the relationship between city and university also failed to reflect the required degree of assimilation in terms of either models or objectives.

In contrast to this conceptually eclectic tendency —which has an influence upon the European scene and even certain sectors of that of North America itself— it seems that in Spain —at least in recent times— there has been a resurgence of a concern to recognise the cultural roots of our university architecture. The configurations of a good number of recent projects show an apparent willingness to adapt the spatial paradigms of the past, —although on quite different physical scales— both with respect to their intrinsic compositions and by looking once more at ways of forming active links with the city.

The Cartagena university project, which takes over the baton from the first bearer and *Alma Mater* —Salamanca at the beginning of the 13th Century—, constitutes a unique case within the European context. It represents an audacious modern paradigm for the reinterpretation of Spain's cultural memory.

PROJECTION OF CRITERIA

The fundamental objective of the university is to educate the whole human being. To achieve this aim, it is necessary to convert the university into a physical space that has been intelligently adapted to the different conditioning factors that form its environment. What role should the Architecture of Knowledge play in all of this? The answer requires recognition of the fact that its final objective must be that of optimising the built reality in response to the tremendous importance of the mission in hand.

Correct spatial design is not only necessary from a functional point of view, but must also be regarded as a factor that, in itself, provides a solid guarantee for the cultural projection of the academic institution.

Below, we have sketched out a number of criteria for excellence that should preside over the conception of the Architecture of Knowledge.

These reflections will be illustrated with reference to their applications in the case of the *Universidad Politécnica de Cartagena*, as this process constitutes one of the most attractive in the Spanish context. On one hand, it conjugates the European roots of the historic quarters which are exemplified in the patrimony of the *Universidad de Salamanca* and, on the other, the intelligent resources of adaptability and a global vision have been taken from the most important foreign tendencies.

The University should be harmoniously and sensitively adapted to its setting

“Place”³ should be understood as the set of natural, social and cultural factors that characterise the selected location.

3. The term used by the author is “*lugar*”.

As shown below, this question has been continuously addressed from the very origins of the educational institution. The Bolognese teacher of rhetoric, Buongom-pagno, had already specified the qualities that should be demanded of the physical location for the *School*. In the Spanish context, the first solid criteria meant to govern the characteristics of the *place* at which the activities of the *Estudio General* were located were established in the middle of the 13th Century, as recorded in the second of the *Siete Partidas*⁴ drawn up by Alfonso X (*El Sabio*⁵). The king stressed the need for purpose built and functional buildings, set apart from the town. This constituted - five centuries before its time - a first theoretical-conceptual representation of the segregated model whose paradigm is the North American campus:

*“De buen aire e de fermosas salidas debe ser la Villa do quisieren establecer el Estudio, porque los maestros que muestran los saberes a los Escolares que los aprenden vivan sanos en el e puedan folgar o recibir plazer en la tarde cuando se levantaren cansados del estudio. Otrosí debe ser abundada de pan e de vino o de buenas posadas en que puedan morar e pasar su tiempo sin gran costa”*⁶

As numerous authors have pointed out, this consideration which alludes to the creation of the educational project and its environment would come into conflict with some of the principles of the Modernist Movement. The division of the city into sectors, the breaks with historic practice, and the general context, all point in the opposite direction to the established tradition of integration and identification between city and university, which so characterise the Latin tradition of Salamanca, Bologna and Paris as well as Oxford and Cambridge in the English speaking world. Having established this scheme for analysis, it is possible to examine the validity of some of the postulates of the *Carta de Atenas* such as the demand for an independence of form with respect to the natural and architectural factors that characterise *place*.

PLACE IN CARTAGENA

The natural environment. – It is a 3,000 year-old city, whose Mediterranean setting possesses a splendid physical configuration. The port model with which it can be identified corresponds to the Phoenician prototype; with a narrow entrance, commercial docks, and military port or walled and camouflaged “cothon”.

4. “The Seven Entries”.

5. “The Wise”.

6. “The town should offer fresh air and pleasant exits in all parts in order to foment study, so that the teachers who impart their knowledge to the scholars who study may live healthily within it and may give or receive pleasure in the afternoon when they arise from their study. It should also be furnished with bread and wine or with good inns in which they might live and pass their time without great expense.”

The old quarter of the city, which is the preferred development zone for future stages of university expansion, opens onto the sea along the southern front formed by the Paseo Alfonso XII. The geographical personality is equally defined by its five hills, which are historical and spatial landmarks and constitute a natural heritage of incalculable value. They are encircled by the Roman remains of *Carthago Nova*,⁷ which serve as pedestals for castles and fortresses whose presence exerts a major impact upon the unique perception of the city.

In conclusion, Cartagena offers a cultural landscape that, as a general spectacle, aesthetically rebels before the visitor's eyes.

The urbanistic-architectural environment. On the colossal face of this thousand-year-old city it is possible to clearly trace the footprints left behind by the different civilisations that have occupied it in the course of its centuries-long evolution.

The old quarter, previously formed a small peninsula, whose isthmus was located near today's Plaza de Bastarrece. The Laguna del Armajal, situated to the north, was originally connected to the sea, though its access to the Mediterranean was closed in the 18th Century following the building of the military arsenal. The reclamation of marshlands—which was carried out towards the end of the 19th Century—and the demolition of the city's walls made way for its growth.

There was therefore a desire to mould the structure of growth in accordance with the radio-centric geometric imprint and in harmony with the semi-focal nature of the sea front. The most outstanding example of this intention was the "*Proyecto de Ensanche, Reforma y Saneamiento de Cartagena*"⁸ of 1898, which constituted one of the most brilliant examples of 19th Century Spanish urbanism—though one that was unfortunately never to become a reality. This expansion sought to connect the centre with previously existing outlying nuclei, thereby attempting to interrelate several *ensanches* to form a single whole, yet at the same time allowing them to maintain their own distinct personalities.

With the dawning of the 21st Century, Cartagena demands a more compensated development of its civic fabric. First, urban development should be channelled towards regenerating the city's old quarter. This should be followed by the re-qualification of the eastern sector, where an important pocket of land is currently adversely affected by the remains of the now obsolete heavy industries that were once based there. In both cases, but especially in the first, the progressive establishment of the university will constitute a decisive element in a process of urban regeneration that cannot be postponed any longer.

7. New Carthage.

8. A project for expanding, reforming and reorganising Cartagena.

The patrimonial and archaeological environment. The rich heritage and archaeological legacy of the civilisations that have occupied the city can now be contemplated with a potentially emotional attitude.

Cartagena enjoyed periods of past splendour as both a Carthaginian and a Roman port. It later received the privilege of being designated as a *Departamento Marítimo del Mediterráneo* in the 18th Century, while its mining industry flourished in the 19th Century. However, the subsequent decline of the mining sector, together with other political and economic factors, led Cartagena into a progressive decline, whose effects were felt at the territorial, social and urban levels. The consequences of this decline are still apparent today, and particularly affect its historic complex.

There is an urgent need to take committed action in order to recover the incommensurable archaeological and patrimonial legacy of Cartagena. The metropolis continues to wait impatiently for the future resurrection of its historical heritage, and this is a mission in which the moral authority of the university is destined to play a decisive role.

To the wide range of archaeological treasures, which bear witness to the different civilisations that occupied the city —amongst which the Carthaginian and Roman civilizations take pride of place—, we must add the unfinished mark of the “*Proyecto de Ensanche, Reforma y Saneamiento de Cartagena*” of 1898, as well as a rich repertoire of baroque, neoclassical and modernist architecture, whose most outstanding authors include Víctor Beltrí.

Yet despite all of this, the resurgence of the city’s heritage treasure —which it would have been desirable to have completed several decades ago— remains a task in which the establishment of academic uses —whether in previously existing or recently constructed buildings— is destined to make a crucial contribution. As the first standard, the already underway process of configuring the *Hospital de Marina* complex, located in the southeast quadrant of the thousand-year-old urban fabric, offers an opportunity to recover a splendid roman amphitheatre that dates back to the year 70 AD, and which today, incomprehensibly, lies buried beneath an obsolete and inactive bull ring.

The social and institutional environment. The creation of the *Universidad Politécnica de Cartagena* in August 1998, and its separation from that of Murcia, constituted a decisive impulse in the development of the academic, social and urban process.

The active presence of this academic institution as a promoter of cultural innovation will bring together the most important activities to be undertaken in the immediate future. Cartagena’s society has already been assigned a leading role, as the main point of origin and destination of the many works of regeneration carried out in their environment.

9. An officially recognised port and administrative area on the Mediterranean coast.

In sum, the most sensitive adaptation to the previously described parameters of *place* in Cartagena will guarantee a global project with the best possible roots and signs of longevity.

The design of a University should be undertaken through integral planning. It should begin with the choice of a model that is compatible with its academic, social and spatial philosophy

As has already been commented, in the Spanish context it is rare to find an example of holistic planning. One of the negative consequences of this circumstance is a lack of efficiency in adapting educational complexes and their buildings to changes in the orientation of the Institution or its academic and practical needs.

It is important to underline that any future projections towards the undefined future of the physical installations of a University should be preceded by prior debate about the model around which it is planned to purposely and progressively structure the development of the individual interventions.

The *Universidad Politécnica de Cartagena* is destined to become a decisive factor in the future development of the city. This will begin with the revitalisation of its urban nucleus, which cannot be put off any longer. As with all other dynamic organisations that have an important cultural dimension, the recently created Institution has embarked upon a journey during which it will be sensitive to the changes that simultaneously take place in its socio-economic, cultural and political context. Under the control of these considerations, the evolution of the city and its University must be fully coordinated and generate a common space with which their population can relate.

In the shadow of this philosophy, a Management Plan is being drawn up for the period 2000-2015, which will gather together the criteria and priorities deriving from the model for the implementation of its physical spaces and will establish the guidelines for its foreseeable future extension. The most advisable typology in this case, which is concerned with links between University and city, is that of total identification between one organism and the other. This reference has been selected on account of Cartagena's previously existing characteristics. It continues the historically ingrained inheritance of the medieval University, for which the case of Salamanca constitutes the most significant paradigm within the national context.

But the reflection should not end there. The singularity of the case of Cartagena lies in the unusual opportunity for the reconversion of a degraded historical fabric, and also in the possibility of adding to it a global urbanistic proposal that regards the process as a macro-dimensional unitary whole, whose evolution can be predicted.

Among the many positive consequences of the project that is now being put into action is the consolidation of Cartagena as an open metropolis, with a plural population as regards age, profession and social class, in which culture acts as its common bond.

To summarise, the coming into being of this planning instrument must establish as its goal the canalisation of the University's development space lying within its *place*.

Architecture and spaces linked with the University should be designed with the intention and sensibility that correspond to the transcendental activity that they house

The design of university Architecture must be the result of a balanced combination of courage and wisdom. Although it is quality that is demanded in any human activity, the physical spaces of the University must respond to a conception and later materialization that come up to the level of the mission that they form part of.

This can be translated into three main arguments: functional, cultural and symbolic. The first of these could be resolved within the Virtruvian trio of *utilitas, firmitas, venustas* (utility, stability and beauty), dimensioning the solid volumes and empty environments in such a way that they satisfy the necessities and foresee their evolution with flexibility. But the legacy of university Architecture would be poor and banal if it only responded to these basic requisites.

The second main axis points to the heart of the Institution: its cultural vocation forces it to exercise an intellectual and artistic avant-gardism. Culture carries with it an intelligent adaptation to its environment and the *place* that has previously been considered. The built space should therefore be sensitively adjusted to the organisational model of the University and the urban environment. At times in History when tradition and context have not received adequate consideration, projects of dubious cultural justification have emerged. A functionally correct Architecture, though one which is not sensitive to *place*, ceases to be good. This is the case of the many European and Spanish campuses which lack roots and are therefore like the misplaced links of foreign chains and the suffering slaves of their conceptual and morphological eclecticism. On the other hand, the authenticity of recent interventions such as those of Alcalá de Henares, Barcelona, Girona, Sevilla, Santiago de Compostela, Tarragona, Valladolid, Salamanca and the touching regeneration of Cartagena has been admirable.

The third argument alludes to the protagonism of Architecture with respect to the external image of the University. Ortega y Gasset defines this as the institutional projection of the student. For him, Architecture is the student's constructed body, and therefore he should reflect upon its powerful symbolic charge. The splendid plateresque façade of the *Universidad de Salamanca* is particularly significant. Conceived by Juan de Álava (1529), it has endured as an emblematic architectural stamp; a stony tapestry that announces the *Universidad de Salamanca* with expressive solemnity. Something similar is found at La Sorbonne: when Richelieu erected the new Church, he offered to the exterior the symbolic façade of its central nave. In homage to this "provocation", the city created a small square in front of the temple and even demolished some of the houses in the Rue Sorbonne to make way for it.

A jump in time takes us back to the hasty present where, in terms of physical implementation, architectural considerations have been subjugated to the dictates of, or even substituted by, modern telecommunications. This would allow the emergence of the *virtual campus*. A first, yet firm, adoption of stances in the face of this

tendency incites us to bluntly declare that it would be a crass error to dilute all of the symbolic weight of the university buildings into the channels of information. Is it really possible to imagine a *virtual University*, without the heat of a physical body and lacking an image with which society could identify?

The ambitious project that has begun to emerge in Cartagena is fated to stand out as the best argument against such impersonalisation. The bestowing of value to a lethargic patrimony and the transformation of a shadowy metropolis into a “City of Knowledge”, at the start of the 21st Century, require that Architecture and the important open spaces associated with it act as material fuses for a culture explosion that will flood the entire urban and social fabric.

Architecture should, therefore, respond to the spatial needs of the University and constitute a solution in itself. It is necessary to inject a renewed dose of imagination and utopia, as the indispensable transforming energies that the University has always used to revitalize its ideals and physical structures. With reference to the last of these, a new time has arrived at which to fight against the “hyper-semanticising” and de-contextualisation which afflicts some modern university Architecture. In order to fulfil its centenarian capacity for provocation, it must be conceived from the perspective of sensibility and courage, which in their time were as provocative as many spatial paradigms. That of Salamanca is important in its own right and has been taken as a historical landmark in this paper. But this message should not be misinterpreted: as far as its artistic potential is concerned, good modern Architecture has no reason to envy the classical period. The commitment that this promotes is that of learning the lesson from the best of our History: the true vanguard knows neither time nor place, but rather permanently emanates from intention and culture.

The future of the University lies in a wise interpretation of memory. To date, it has yet to respond with all its possibilities to a society that is calling for mature, coherent projects. We have the right and the obligation to demand that its Architecture should continue to move us, using for this end all of the provocative energy that it has shown to possess for more than nine centuries.

By way of synthesis, I wanted to bring this reflection to a close by setting out a series of concise proposals, with the aim of throwing some light upon both the emerging Cartagena project and the momentous future that lies open to both Spanish and international Universities in the 21st Century:

First. - The University has to develop the transcendental mission of educating the whole human being. To achieve this, it must pay special attention to the design of buildings and open spaces which house such an important process and which will become part of society’s collective memory.

Second. - Although it has been traditionally impelled by the transforming energy of utopia, it should give priority to urbanistic and architectural criteria in the design of its physical space, and —as far as possible— move away from an excessive indulgence with political and/or economic space.

Third. - The conception of the physical installations of the University should be guided by the application of conceptual principles that are born out of the parameters of *place*, as opposed to importing models or styles whose genesis, essence and/or configuration are unrelated to local culture.

Fourth. - The planning of university premises must go beyond the mere forecasting of available surfaces. It should incorporate the intention of design as an essential element, and compositions will be created that should pay as much attention to constructed volumes as to free spaces.

Fifth. - The University is a living organism in terms of its essence and formal manifestation whose fundamental need must be the internal flexibility and external adaptability of its built environments, which should help to make possible its evolution without any contradictions. The Architecture of Knowledge should therefore have its foundations set in one essential premise: its conception is not so much that of an object, but that of an entire process in movement. It is not a case of designing a road, but rather of knowing how to travel along it.

Finally, it is my intention to invite the illustrious organizers and participants in this 8th Urban Studies Week entitled “University Cities and Urban Campuses” to focus our attention on the main objective; that of correctly conceiving the urbanistic and architectonic support for the university. This strengthens the links between City and Society and, in a general way, between culture and progress.

We could consider ourselves satisfied if we were able to at least kindle this sensitivity and —why not?— also encourage and diffuse the fervour of those responsible for the planning and management of the university space. It makes no sense to start from an exclusively technical base that does not contemplate a certain sense of hope through which to channel the imagination.

The University continues to be our source of hope...

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