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The concept of “Educational Campus” and its application in Spanish universities

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A university campus should reflect a commitment to quality and be dedicated to the intellectual, psychological and social development of its students. The “Educational Campus” is an innovative concept which espouses this concept and is designed to stimulate a process of modernisation in universities and contribute to their excellence.

INTRODUCTION

European universities are in the process of adapting to the academic requirements of the European Higher Education Area (EHEA), but they need to face a quality shift as regards space (architecture and urbanism). In response to this challenge, the innovative concept of the “Educational Campus” has been conceived, and it will be of potential interest to those responsible for orienting the future development of universities. Its aim is to foster the transformation of mere physical spaces into quality educational spaces, and in this way contribute to the intellectual, affective and social development of the university student within the urban and social context. This concept emerged in 2005 when the University of Salamanca’s new Campus of Villamayor was designed; a description of the project was given in an [earlier issue of CELE Exchange](#).

This paper explores the ten principles underlying the concept of Educational Campus, as well as their application in several Spanish universities.

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Campus of Villamayor, University of Salamanca, Spain
(Architect: Pablo Campos, 2005)



Education is conditioned by its spatial context insofar as the interaction that facilitates the exchange of knowledge takes place in a particular physical environment. The Educational Campus, which builds on this idea, is a complex concept and its multiple features are described below. It aims to provide a range of theoretical and practical reflections that could be of use to universities which intend to remodel their environments. A campus can be considered “educational” if it embodies the values contained in the following ten principles:

1. Utopia and integrated planning. In the spirit of the utopian vision to create perfect places, we should create integrated planning strategies for universities. By translating the essence of utopian ideals into tangible objectives, these strategies should give shape to models which enjoy extensive freedom and flexibility in both space and time. It is important to have in mind that, in order to create a university precinct, it is not simply a question of formalising an architectural and planning technique, but also of providing a framework for architecture which fosters human activity.

2. Community of learning. A higher education institution should stimulate personal contact and serve multiple functions, and thus nurture a fully-fledged community of learning. Here, the human scale should prevail throughout the various loci and foster a sense of belonging among students. Through carefully studied design, the users of these spaces should bond with their physical environment. In this way, urban planning and architecture stimulate study and research, interaction with fellow students and mentors, and enhance the academic experience as a whole.

3. Spatial harmony. The configuration of a university’s architecture and urban planning must be thoroughly aesthetic, given that it will form part of the users’ collective memory. The physical elements of a place of learning must amount to more than just an equipped built surface; it must also dispense visual education by creating a coherent spatial whole where as much heed is paid to built volumes as to open spaces. The campus is the hub and backbone of the university and provides the new student with his first (visual) lesson: it is a “three-dimensional textbook” in tectonic corporal form.

4. Emotional and intellectual harmony. A campus should become a spatial metaphor for the emotional and intellectual harmony the university seeks to promote. This harmony is consciously designed to impact on the learning community and stimulate empathy. The layout and materials used in the construction of the various architectural components of a teaching or research site must foster the psychological well-being of its users.

5. Nature and art. The presence of nature brings an added element of educational value to the campus, leading to an overarching integrated architectural model governed by a sense of “unity in diversity”. The different elements – buildings and open spaces – should create a physical habitat which reflects the vocation of a campus: that of being a cultural artefact endowed with curricular content, *i.e.* a home to study and research. Additional outdoor and indoor zones can be added on to the principle buildings in order to exhibit artwork and facilitate further educational experiences.

6. Image and accessibility. The university should present a powerful image in keeping with its essential missions, *i.e.* teaching, research and engagement with society. It should be accessible from a conceptual and physical point of view and strive to maintain local culture and traditions, whether social, geographic, cultural or architectural.

7. Sustainability and adaptation to the environment. An academic institution should ensure that its architecture and urban planning are in harmony with its surrounding geographical and climatic conditions. It should be exemplary in relation to the environment, biodiversity and sustainability. It should use construction materials and technical solutions that are in line with this policy, and employ mechanisms that use renewable sources of energy and are respectful of the environment.

8. Memory and *avant garde*. A university campus should honour the memory of planning and architectural paradigms inherited from traditional "places of learning", for these are a valuable source of concepts that nourish contemporary design. Both new projects, which have extensive freedom to experiment with shapes, as well as plans to remodel existing buildings, should demonstrate both modernity and *avant garde* design, thereby enhancing the intellectual identity of academia.

9. The university/city relationship. The university and city should work in collaboration, create synergies and actively encourage the presence of academics and places of learning in social and urban contexts. This way, both entities can support each other's efforts to innovate. They can also enlist the efforts of other institutions in order to bring about all-encompassing social and cultural projects.

10. Innovative teaching and learning modalities. Through innovative design, a university should be able to inspire and foster innovative forms of teaching and learning. As part of a holistic educational project, alternatives to the conventional lecture hall should make inert roles obsolete. These alternatives should be "intelligent" locations that stimulate the creation and transfer of knowledge and a healthy exchange of views between teachers and students.

HOW THE CONCEPT OF EDUCATIONAL CAMPUS HAS BEEN APPLIED IN SPANISH UNIVERSITIES

Two milestones have triggered off a process of planning and implementation which should help to ensure that college premises are designed with quality and innovation in mind. These are the creation of the EHEA at the European level and, in Spain, the introduction of the Campus of International Excellence programme.

Since its beginnings in 2005, the concept of Educational Campus has been applied in several instances. The first was during the creation of the fore-mentioned new campus of the University of Salamanca, a project which received the "Honor Award" of the North American institution "Design Share: the International Forum for Innovative Schools". In 2007, it inspired the plans for the Iberdrola Sustainable Campus (Madrid). The following year it was applied when the external campus of the University of Alcalá was remodelled. In 2009, several principles contained in the Educational Campus were applied to the master plans of the University of La Laguna, the University of A Coruña and the Autonomous University of Madrid (UAM). In all these cases, the overall aim was to plan and bring about a complete transformation of their physical spaces and introduce innovative teaching and learning modalities within the campuses.



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Master Plan, Resource Centre for Learning
and Research, University of La Laguna
(Architect: Pablo Campos, 2009)

Master Plan, University of A Coruña
(Architect: Pablo Campos, 2009)



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The principles of the Educational Campus were recognised as a valuable conceptual resource and in 2009 they were integrated into the strategic programme Campus of International Excellence, launched by the Spanish Ministry of Education. An article was published on this subject in the *CELE Exchange* March 2010 issue.

The case of the Polytechnic University of Madrid (UPM): a new educational model

The Polytechnic University of Madrid (UPM) was founded 1971 and has 39 422 students. In 2008, it launched a research project in order to define a new global educational model. One of the elements of this study (which was co-ordinated by the UNESCO Chair of Higher Education Management and Policy) was a strategic design based on the 10 principles of the Educational Campus. The research project made the following recommendations to the UPM:

1. Analyse and evaluate the efficiency of current educational spaces: classrooms, seminars, laboratories, etc. The UPM has three main campuses (University-City, Vallecas and Montegancedo), spread over the centre of Madrid and its periphery. All three count a large number of academic and research buildings.
2. Priority should be given to principle number ten of the Educational Campus model, *i.e.* design spaces that support and encourage innovative teaching and learning modalities. These modalities provide for different types of interaction between faculty and students, which need to be hosted by a specific spatial structure.
3. Once the spatial structure has been defined, excellence in the UPM campuses can be promoted through transforming the learning spaces by taking account of four considerations, all of which are coherent with the model of Educational Campus. This leads to the concept of Scale of Educational Spaces. The four considerations are:

- First, the relationship between the university and the city, where it is important to establish synergies and common identities between each of the UPM's three campuses and their corresponding urban environments: the city of Madrid (areas of Moncloa-Argüelles and Castellana Avenue); the eastern outskirts of the city and town of Vallecas; the residential area of Montepíncipe.
- Second, the three UPM campuses should be remodelled in such a way as to achieve spatial harmony, forming a harmonious whole composed of built volumes and open areas (where nature plays a key role). Outdoor spaces should be able to serve as new learning places.
- Third, the interior spaces of the educational facilities should be conceived in such a way that they can provide areas for alternative teaching and learning modalities. This way, all available spaces (offices, halls, corridors, corners, etc.) can be transformed into valid teaching and learning environments.
- Fourth, in addition to the typical lecture rooms that one finds in various UPM buildings, several other types of learning areas can be designed. Planners need to think about creating alternative classrooms and make sure that furniture can easily be rearranged. This flexibility would lead to the emergence of innovative learning spaces, which in turn would enrich educational diversity in the UPM.



Polytechnic University of Madrid (UPM)

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CONCLUSION

The theory underpinning the Educational Campus is that education as a whole, and – as a corollary, the university – is a spatial happening, as described earlier. The premise of this view is that the interaction that facilitates the transmission of knowledge must take place in a specific, physical environment. The wealth of possibilities offered by architecture and planning therefore constitute a key element in relation to the ultimate mission of every higher education institution, which is the all-round education of its students.

Given the current European university system, the principles of the Educational Campus can be of great benefit when designing and remodelling campuses, and in this way contribute to excellence. Although finer details have to be determined locally, the global concept can be applied to any scenario. Any university can develop a planning strategy: it simply needs to carefully analyse the ten principles and apply them in function of the characteristics of the campus in question and its social and urban context.

“The campus serves the institution not only by satisfying physical needs, but by expressing and reinforcing these ideals or goals” (Paul Venable Turner, 1984)

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