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SPEAKERS

## The Experience of a Pioneer Research Program in Architecture in Évora

### Abstract

Three years ago the University of Évora implemented a research PhD program in architecture. Generally a doctorate in architecture has been an academic title awarded to architects who present a theoretical dissertation; however, for us, as a young but promising school of architecture it was just natural that a project (as a methodology, a process of knowledge or simulation of a hypothesis) could be part of an advanced research in architecture. Thus, we started with this doctoral program seeking to question the current model of PhD programs and to established a new pioneering paradigm syllabus in the national context with the intention to reach the international arena

During the course syllabus the project lab integrates the formulation of a theoretical hypothesis (a conjecture), that becomes an architectural design, which is unique, but simultaneously an universal knowledge.

The program already had two editions were PhD students have been encouraged to develop advanced research and to foster interaction between the theoretical and architecture production. Currently no research has yet finished. Students, although much interested in this type of research, are divided in their approach to architecture as a theoretical, speculative and critical field, and to architecture as a field of research. Students and teachers are interested in research that develops their architecture design skills, as a relevant process of advancement knowledge in architecture.

We believe that PhD syllabus will contribute to demystify and implement the concept of advanced studies in architecture, based on architectural research. This paper will share some of the ideas, doubts, and results of our PhD program.

### From teaching by design to research by design

Teaching of architecture at the University of Évora in 2001 started in close liaison with the teaching of landscape architecture and a master's degree in heritage conservation<sup>2</sup>.

The course in landscape architecture at the University of Évora, since its foundation, assumed a differentiation from other courses in the country<sup>3</sup>, due to the presence of a strong component in the aesthetic and humanistic education associated to the model of natural sciences and environment. Francisco Caldeira Cabral and Gonçalo Ribeiro Telles (as a landscape architectures) had a great influence not only in training but also in the reputation of this course.

The core of the master degree in conservation of architectural heritage and landscape, that brings together teachings of architecture and landscape, makes this degree a pioneer in the national context. This differentiation is also visible on the recognition that this type of training in heritage covers a very broad range of complementary scientific areas and as such should promote and consolidate the transdisciplinarity between scientific areas.

With an initial genesis within the landscape and heritage, unique in Portugal, the

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<sup>1</sup> The curriculum was published in *Diário da República n° 159* - 11 July 2001. In the last year of studies the students could choose between planning or heritage.

<sup>2</sup> The master's degree in Recuperação do património arquitectónico e paisagístico was published in Portaria 525/89, 10 July 1989.

<sup>3</sup> The architecture courses of Lisbon (FA UTL) and Oporto (FA UP) Universities were created by the integration of the ancient schools of fine arts.

Évora Degree in Architecture had the collaboration of, among others, Nuno Portas, José Aguiar, Paulo Gouveia (as members of the "Comissão Instaladora"<sup>4</sup> and / or as teachers) who brought with them their scientific, professional, educational and cultural experiences. We can thus consider that these are the first "imports" that outlines the core of the initial course in architecture, promoting a relationship between architecture / urbanism and landscape with particular focus on urban planning and heritage.

The initiative of the then Rector Jorge Araújo to create the Degree in architecture is included in the idea of extending the educational offer of the University of Évora to artistic teaching<sup>5</sup>. According to Jorge Araújo this idea "raised from the conception that the University should be the environment where more advanced expressions of the human mind find room and form a continuum, from the artistic creation to the scientific deduction of experimental character; also, from the conviction of the importance of cross fertilization of sensitivities, knowledge and skills from various azimuths, towards knowledge progress, as well as the individual cultural edification"<sup>6</sup>. About this time degrees in theater studies (now degree in theater) music, fine arts (now degree in visual arts) and in 2001 the degree in architecture were created.

This initial core related to landscape and heritage could thus be enhanced by the development of scientific areas related to arts. Progressively the architecture teaching gained autonomy from the departmental structure of the biophysical and landscape planning (responsible for the landscape teachings) and created the department of architecture that was later included in the departmental area of art (now the school of arts) independent from architecture landscaping (which in turn is including in the school of science and technology).

During this early period, in 2007, a large series of lectures on architecture was held, which was attended by recognized architects such as Álvaro Siza Vieira, Eduardo Souto Moura and João Luís Carrilho da Graça among others. Retrospectively, this event was significant not only for the academic as well as professional recognition of architecture teaching in Évora. Indeed the diversity of backgrounds, academic and vocational personalities invited with extensive experience recognized by their peers

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<sup>4</sup> The *Comissão Instaladora* of the architecture teachings was created on the 22<sup>th</sup> of April of 2004 and it's the embryo of the architecture department

<sup>5</sup> This idea was a proposal present by Jorge Araujo in 1994 when he when he was running for rector that year.

<sup>6</sup> O livro dos leões, CHAIA, Outubro, 2008. p.5

<sup>7</sup> The lectures took place between 15th of March and 28th of June

further demonstrates, albeit in an "embryonic" form, a bet in the importance of practical project experience to teaching of architecture.

As a result of the growing number of students, the faculty was enhanced significantly between 2004 and 2005, by a public job application. The faculty members are characterized by distinct training backgrounds, teaching experiences and research and professional practice that will separate, on the one hand the need of the project practical experience and on the other hand the importance and rigor of the research.

In 2005, architect João Luís Carrilho da Graça assumed not only the direction of the architecture proto-department but also taught the last year advance design studio. With his extensive professional and academic experience he promoted and consolidated the didacticism of project practice as a key on the architecture training and learning. This idea of learning (or teaching) by doing project promotes and validates, in the academic context, an appreciation of the own methodologies and tools of the architect - the design, the model and the project. As regards Jorge Spencer, this idea "is inseparable from a secular model of learning architecture which stems from a relationship master/disciple passed from the construction site to the atelier, the academy, the school and the university"<sup>8</sup>.

Since then the department of architecture and it's direction decided to invite teachers with recognized project abilities that could contribute with their disciplinary and methodological knowledge to the training of young architects as future designers.

The presence of João Luís Carrilho da Graça in the department for a period of about 8/9 years between 2005/2013, not only (re)defined the course identity but also, and above all, consolidated the course core - teaching by project. The fact that many of the teachers had backgrounds marked by both academic and professional work and João Luís Carrilho da Graça personality, allowed consistency to the education of young architects through and by the project core.

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<sup>8</sup> Spencer, Jorge - *Revista de Cultura Arquitectónica Joelho* nº3, April 2002, p. 119.



FIG.1: The design studio in Leões, University of Évora

Two years after the course had to adapt to the Bologna process, which was implemented in the academic year 2007-08. The curriculum was then reshaped and the degree transformed into an integrated Master, requiring a dissertation. The Bologna Process is proposing a new challenge in teaching architecture – teachers and students have to “investigate” –! Advance design studio promotes dissertations, with practical and experimental nature, and articulation with the theoretical disciplines and with the research lines of the Center for Art History and Artistic Research - CHAIA is encouraged. This logic will contribute to a close relationship between teaching activity of the architect, by project, and the scientific and research activity, promoting the transition from education by project to an idea to research by and through project. This strategy also sustains the disciplinary autonomy of architecture and enables a dialogue with either complementary disciplines of social sciences and humanities, or of the arts, whether of landscape or a multidisciplinary, and transdisciplinary perspective of technological knowledge and production. And precisely this change in more “scientific” or investigative direction in the area of architectural design, particularly in the last cycle of training that creates the ideal conditions for the creation of the doctoral program in architecture, promoting research through their own methodologies of architecture. The doctoral program, approved in 2011 is thus a

development of the architecture teaching that fosters research through design. These architecture teachings (both integrated in the integrated Master and in the PhD course) are a legacy left by João Luís Carrilho da Graça in Évora that values the relevance of architectural design as a tool, methodology, process knowledge and / or simulating hypothesis in (advanced) architecture lessons.

As most significant achievement in the last two academic years, courses in the curricular units of project and laboratory were offered to students to deepen their study and thought on the territories of Alqueva (academic year 2011-12) and Cova da Beira (2013-14). The landscape of Alqueva or Cova da Beira are assumed as the key theme of the exercises that seek to understand the "vocation" of the place as the most fundamental act of architectural design<sup>9</sup>.

As methodology of the project laboratories the students reflected, experienced, observed, analyzed initially the place, the environment, the context and its history, and as a means to discover how the project should be. As regards Alvaro Siza Vieira is necessary to "look at the site and make a drawing before calculating the square meters of building area." Drawings manifested as indispensable instruments for reflection, reading, interpretation and representation of the characteristics of the territory during the investigative process for the students. Drawings also allowed recording the identity of the place/territory, and therefore constitute instruments of knowledge and recognition of the vocation and the character of the place allowing students to draw their architectural projects as the construction of a place.

Research on Alqueva landscape held by design and through models was presented in an exhibition at the Museu da Luz, between April and June 2013, allowing not only present the students results, but also to expose them in the community and in the study place - the Alqueva. Above all, it also allowed an emotional, aesthetic and temporal experience of the Alqueva landscape.

This academic year, the study of Cova da Beira will be published and presented at an exhibition to be held in Fundão next June. The size of these two teaching experiences (covering a significant number of students) allowed us to understand and validate architecture teaching, where the landscape and heritage has a strong expression but where architectural design as a tool, methodology, process knowledge and/or simulated situations is promoted and encouraged.

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<sup>9</sup> Norberg-Schulz, Christian. *Genius Loci, towards a phenomenology of architecture*, 1980, New York: Rizzoli, p. 5

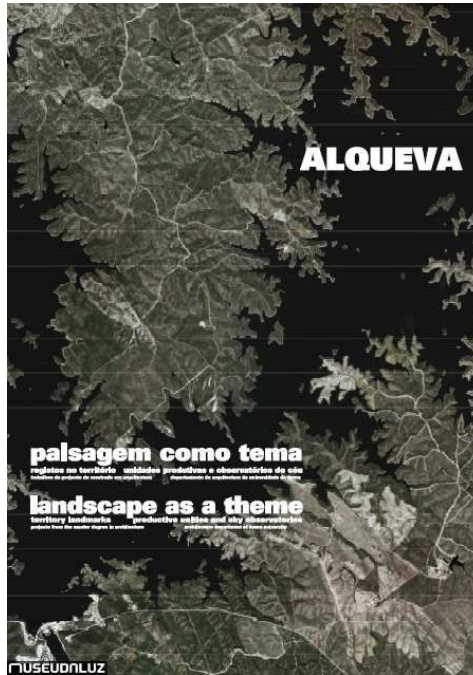


FIG.2: Landscape as a theme was the name of the exhibition at the Museu da Luz

## Évora university architecture Phd, a recent, and ongoing history

It should be noted that the draft of the doctoral program in architecture is being developed. Which means there are not yet completed theses, and therefore a factual balance cannot be done. Nonetheless, some evidence allow us to move forward with interpretative hypotheses.

Considering the above, our position on the issue of research by design is composite, and lies somewhere between circumstance and planning: it is a reflection ex tempore, with its freshness and intensity, and naturally also the risk.

This intensity is reflected in the interest shown by students of our doctoral program in this International Colloquium – the program includes about seven contributions from the PhD of Évora. We thus succeeded in building a bridge between the doctoral students and the program, which is one of its strong points.

## Planning syllabuses

The syllabus provides for a two-semester curricular scheme, in a total of six Units: Laboratory; Seminar; and Methodologies.

Space Lab is central, as the generator of the foundations demanded for in the Seminar (at the level of interdisciplinary content) and methodologies (in terms of work models); circularly, it is the place into which what is tested while exercising converges, laying the groundwork for the proper understanding of the processes associated with the project as a valid form of research.

In turn, setting the curricular component is closely linked to the profile of teachers, in fact, this is one of the channels where disciplinary complementarity is articulated, particularly in terms of philosophy and landscape, as will be mentioned in greater detail latter on this paper.

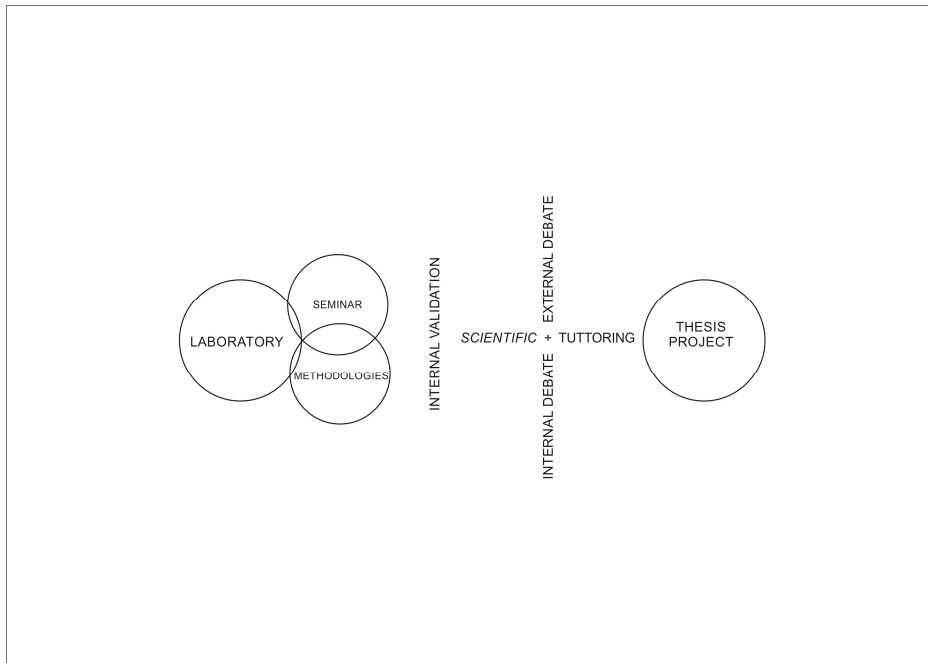


Image 1: Diagram of the Phd three year planning, with the 1st curricular year

Today, Portuguese universities can count with teachers who carry with them, through the history of their education, a variety of academic experiences gained in different countries, which means a variety of academic culture. Since 2004, Évora, as was



already mentioned, could muster a set of varied and interesting faculty.

The Évora PhD program considered here, although with a yet apparently reduced critical mass, has a group of teachers with working experiences in Venice, Barcelona, Seville, besides Porto and Lisbon.

This variety is especially worthy for allowing a very direct access to the international debate.

The academic approach is complemented and articulated with a practical approach brought by architects producing, professional work in workshops, which responds to direct requests from the "real world"

### **Contributions coming from the professional practice**

In this latter group, and using the technique of demythification (an approach that Jeremy Till employs in his now classic essay on RIBA), it might be useful to dispel the myth that those who teach research by design in doctoral programs should operate equally well on both levels – academic and professional.

The contribution to the discipline of Laboratory by architects who develop their professional activity and structured their work outside the academic context is key in the path of recognizing the specificity of research in architecture. The "practical" architects are rightly expected to show their competences as Professionals (closer to the figure of experts), not that they become academics, or super-beings that dominate the practice of the ateliers and the academy.

Incidentally, the founding figure of the doctoral program is João Luis Carrilho da Graça, who, after having stabilized the structure and development of the Integrated Master's started to construct the 3rd cycle syllabus.

João Luis Carrilho da Graça has a notorious, internationally recognized career. The momentum and sagacious curiosity always led him to develop a close working relationship with the places where teach architecture was taught.

Labs already included the presence of Manuel Mateus, Graça Dias and Antonio Torrecillas, names that, besides being recognized by the relationship with education, constitute, in primis, as major references of the profession.

Using workshop practices, convened for academic framework, a methodology is produced, that articulates – within Lab – the project as a tool for reflection (through working groups of doctoral students).

If professional and academic validation have their own codes and locations, the ambition of the doctoral program is to achieve a synthesis in which techniques and practices of the professional field are presented, not "only" as architectural projects,

but as forms of thinking and discussing topics and issues, thus making itself intelligible in the space and codes of the academy.

This speculative space of test, and experimentation (where the "methodical doubt" takes place) will be the strongest agent of differentiation on the qualities of the project in an academic context, understood as the product of research. Project /design techniques are used for testing purposes.

It should also be noted that the PhD had the important and generous involvement of external professors (Alexandre Alves Costa and George Spencer), who, as members of the first panels of appreciation of the work undertaken by doctoral students, drew comments and arguments that allowed PhD students and advisors to have the first impressions of intermediate results.

In fact, the enthusiasm and the expectation of these professors regarding our innovative work model allowed the criticism to be very precise and targeted.

### **"How" is as importante as "so what"**

The referent of the evaluation and assessment of the PhD will be the ability to find itself in line with the relevant issues of the region. Not limited to that, it may however take advantage of this more concrete dimension to foster a more consistent and "normal" development of the University with the wider social context.

What then characterizes by design is both the "how" (by / through design) and the "what for". That is: what use are the work and reflections developed in a PhD? The answer is: for the community – for specific purposes of the places, mainly to allow the construction of an entitled debate.

Hence the intention of constituting an external group of strategic advisors (that includes representatives of stakeholders within the community), has more to do with the areas that should be the concern – the topics – and not only management issues and models of teaching and guidance. Practice is applied to project research, and applied to the "place".

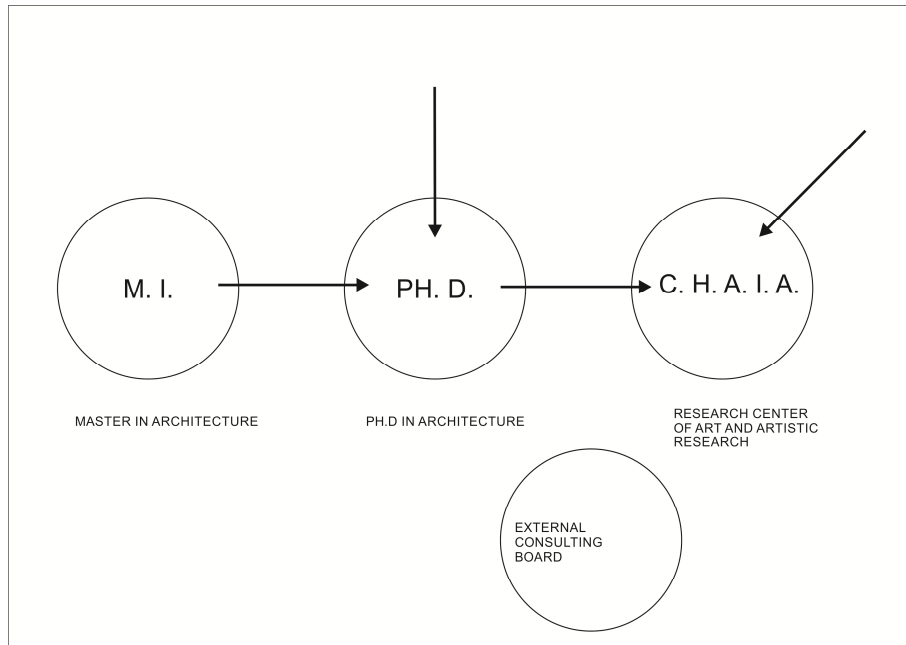


Image 2: Diagram representing the relations with the PhD program and other near teaching and research entities in Évora University

## Interior\_New Territories

The motto of the PhD "Interior\_New Territories" already contains a clear reference to the universe of issues that concern us.

We inevitably consider the deficit condition of the Alentejo (and of Portuguese) countryside, a difficult reality.

It will however be easy to realize that the fact that we are interested in the territory does not enclose us onto a specific and unique space, but, by its nature, falls in an area which is easily recognizable in large parts of the European Space – in southern Europe, but also in remote areas of Scandinavian countries – the point of communion will be a territorial condition outside the urban referents that constitute an international network of close contact – in a sense, these places are peripheral to the major urban centers.

What brings us back to the countryside. Nowadays, rural space is imploded (yet people abide, and live in it); we must therefore ask about the form of dwelling in its

contemporariness and forms of everyday life as well as in the relation to large structures and infrastructures that lie within the territory, disabled, obsolete (industrial / agricultural heritage).

Examples are lab exercises on the village of Monsaraz; the Alqueva space, the city of Évora, illustrate the specific relationship with the regional environment, and broader themes that can be recognized.

Finally, a reference should be made to the organic relationship with the PhD Research Centre – CHAIA. The Center for History of Art and Artistic Research, of an interdisciplinary nature, is composed of six Research Groups that range from art, and archaeology, to landscape. The aforementioned convergence of different disciplines, articulated in the three curricular units, takes into account the assets of the CHAIA – either as work throughout its history, either as a structure that congregates different researchers as valuable partnership.

It is necessary to stress the importance of meetings promoted with other PhD candidates, and PhD students developing the work on their thesis.

Initially, these moments were not considered as structural in the PhD program (not in the curricular part, nor on the subsequent years of work with the scientific guidance of the tutor).

But, as they started to take place (since October 2014, three meetings took place) their importance was perceived by all as having crucial relevance, since they allowed students to confront with peers, on the program, and on other programs, from other Portuguese and foreign universities.

Researchers were directly invited to take part in the debate, as were thinkers, architects and photographers, and others, from outside of the academia.

Likewise, the previously referred external consultant group is being built in the same strategy of directed choice invitation. Besides the endurance dynamics that meetings provide, they are particularly precious occasions to present to the outside universe of academia the activity developed by research centers in the University, and to show how the subjects of reflection are also those of the community.

### *Theoretical frameworks*

After the brief evocation of Architectural teaching at University of Évora, and the description of our PhD curriculum, we will summarize some of the theoretical options that direct our experience of ARbD. Those theoretical options have emerged from the reflection on our experience and on similar RbD programs.

Firstly, the choice of the main theme – at present “Interior- new territories” – reflects the relevance of the actual reality in we are situated – Alentejo, a Portugal Southern

region, that has experienced a prolonged socio-economical depression, and a continuous demographic diminution, despite the rich patrimonial heritage, both natural and cultural, and the quality of its landscapes. Architecture at Évora has to reflect not only this critical situation but the failure of two large projects, that since the 70s have tried to revert it, to no visible avail: the transformation of Sines, a small fishermen's port, into a large industrial pole and international harbour; the creation of an immense artificial lake with the Alqueva Dam, along Guadiana River, in 2002, in the interior of the region, in order to promote intensive agriculture and tourism. To be able to respond to that critical situation, architectural research has to convoy a cross-disciplinary approach and expertise, in order to identify generic problems, and to conceive ways by which Architecture could propose opportune and proficient solutions to specific issues.

We consider our Architecture Research in the center of the cross-disciplinary articulation that values the actual scientific research's potentialities of the University of Évora. We benefit, at the same time, from the small size and the diversity of disciplines that are actually promoted in the UE. Integrating the "School of Arts", with Music, Theater, and Painting Studies, and developing under the siege of "CHAIA" (Centre for History of Art and Artist Research), our PhD program was capable to interact with many scientific domains in other "Schools" and Research centers: Art Studies, History of Art, and Archeology; Humanities, Social Sciences, and Economy; Landscape Architecture, Agronomy, Ecology, and Geography; also with technological research on Energy, Art Restoration, Regional Planning, or Tourism.

We have been able to connect our PhD students' research with many of the research teams at University of Évora, for instance: Energy alternative Technologies; High-tech Agriculture; Archaeological surveys; Patrimonial restoration, Hidrogeological surveys, and the challenge is to make these connections beneficial for both sides.

Posting ARbD at the centre of this cross-disciplinarity understanding, we want to achieve a rooted, but not circumscribed, architectural research, strongly interacting with the regional context and actors, and, at the same time, pointing to the creation of knowledge and expertise that could be applied to analogous situations - and thus generalised, to others regions that are experiencing similar situations.

The second orientation is the assumption, not of a dogmatic attitude, but of a performative scepticism, a critical questioning towards the knowledge, the methodologies, the modes of communication, and the values of assessment that academic and professional Architecture assume as granted. This critical position has been possible due to a strong dialogue between Architecture and Philosophy in three main directions:

We conceive Philosophy of Architecture interacting, not only with Aesthetics and Contemporary Thought, but also with the Science and Technological Studies, thus putting Architecture in a large historical, cultural, and social context, critically valuating the impact and the consequences of Architecture. This perspective implies that we are aware of the importance of understanding, not only of the main stream design processes, but also the utopian and alternative paths, and critically evaluate their suppositions, methodologies, and goals;

We seize the importance of Contemporary Epistemology and Philosophy of Science's debates to Architectural Research by Design; b.1 the distinction between "context of discovery" and "context of justification" in a research by design leads to different strategic and tactic presentations of the processes involved (Schickore and Steinle, 2006); b.2 the concept of "trading zone pidgins" (Galison, 1997) is particular relevant to analyse the appropriation by architects of the concepts of other domains, the ambivalence of architectural discourse and diagrams during cross-disciplinary interactivities, and the equivocal terms that arise in the interactions with constructors and dwellers (including patrons); b.3 the transformation of scientific objectivity from representation to presentation, that nanotechnology exemplifies (Daston and Galison, 2005), can illuminate the forthcoming process of communicating and valuating architectural research results;

Renewing the sense of dwelling (Heidegger, 1953) and of genius loci (Norbert-Schultz, 1980), we take seriously the relevance of Architecture to grasp how "space spaces" (Heidegger, 1969), given full attention in research to the interaction of spatial scales - from site, place, region, and territory - and to the consideration of Landscape as Memory (Schama, 1995), innovation (even dramatic, as the Alqueva Reservoir's impact in the entire region) and Prospective, not ignoring but problematizing an ecological-economic centred understanding of sustainability.

These assumptions take us back to our strong articulation with Landscape Architecture research, and lead to the third and final orientation, that is really a work in progress: our research practice and theoretical position intend 1. to recognize the scientific criteria to evaluate the quality of the results of a PhD program based on research by design, 2. and to clarify and explicit the ethical and deontological values that have to assist Architectural Research by Design in the political dialogue with dwellers and patrons - either public institutions (local and regional councils), or private personae (individuals, business firms, corporations).

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