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A passage in *action research*

Abstract

With different conditions and levels, one can find in contemporary wealthy societies potential situations for the intervention of the architect where it is assumed an intentional avoidance of their presence, that can result in squats, ecovillages or many unnoticed who seek autonomy from something or someone.
While in a theoretical research on architecture without architects a systematic enquiry can be produced without taking the part of the subject, in practice based research on the same subject, to keep its character can result in an artifact not valid *vis-a-vis* the architects practice, albeit presenting the printed document with the appropriate tools and methods for an academic research.
In the present research it is simulated a situation of scarcity, including the *absence of the presence* of the architects skills.
Keywords: action research, autonomy, contemporary vernacular, college of sound construction, utopia

The contributions to frame the aim and the subject of academic research are proficuous, especially since the introduction of the practice into its processes and goals.

From Bruce Archer, which proposes five categories of research in the science tradition (fundamental research, strategic research, applied research, action research and option research) (Archer, 1995, p. 6), through Christopher Frayling on research in art and design that argues "How can I tell what I think till I see what I make and do?" (Frayling, 1994, p. 5) to Linda Candy (Candy, 2006) about the specificities of practice based and practice led research.

The latter model, also called *action research*, involves not only research about the processes of design conception but the actual implementation of that design. As in academic research in fields such as Medicine or Agriculture, the project must be built and tested in order to be evaluated. The artifact becomes an inevitable testimony of the investigation, making its evaluation and validation an institutional novelty in architecture.

Several practical questions arise from that paradigm. In what concerns the investigator and the research center he relates to, they will have to ensure the

financial support of the research process, that include the materials[1] and labour for the building of its investigation. From the point of view of the evaluators, they will need to travel to the site where the *act* happened (when the artifact is fixed to the ground). These are operational and pertinent questions but some conceptual and more disturbing issues emerge.

Will these be investigations into craft practices that lie within architecture?

When it comes to investigate diverse cultural situations, where the institutionalized practices of construction (and of reasoning) do not adjust, how to frame the new values involved?

As an example, while in a theoretical research on architecture without architects[2] a systematic enquiry can be produced without taking the part of the subject, in practice based research on the same subject, to keep its character can result in an artifact not valid *vis-a-vis* the architects practice, albeit presenting the printed document with the appropriate tools and methods for an academic research. The programs, processes and materials carried into these spaces frequently don't have a demonstration by reason or their reasons don't seek the same meaning of truth that architects usually deal with.

But will this space be a *space of architecture*? And more important to the present case, will this space be a *space of research in architecture*?

The research presented here[3] tries to get to the side where the *absence of the presence* of the architect is part of the meaning. It is a fact, addressed by Rudofsky, that the work of the architects only reaches a very small minority of the population, even in developed places[4]. Furthermore, with different conditions and levels, one can find in contemporary wealthy societies intentional situations of avoidance of the presence of architects, that can result in squats, ecovillages or many unnoticed who seek autonomy from something or someone. To choose to live *out of the system* can be a political standpoint but can also be considered a contemporary ascetic practice,

[1] The recognition of the elegibility of the outlays in practice based research is an ongoing discussion.

[2] The 1964 Bernard Rudofsky book and exhibition (Rudofsky, 1965) comes to mind, but all the researches on vernacular or profane constructions fall into this example.

[3] António Coxito, *Arquitectura e Autonomia - programas processos materiais*, on the scope of the doctorate program in Architecture from Universidade de Évora/CHAIA (1st edition, Interior - Novos Territórios).

[4] That was true then, and still it is nowadays – see the studies carried out by Rem Koolhaas/AMO on the relation between the number of architects and the wellfare of the population, where the connection is not linear but complex.

healthy curiosity or a fashion trend.
Within the ongoing research, architectural structures are being built in a rural area. It is intended to simulate the conditions of building an informal construction with the materials, hand labor and representation instruments inherent to a situation of scarcity, including the above referred lack of architects skills. The process did not meant to reproduce a particular place, time or culture and it tries to be aware of the handicaps of pretending to be *naïf*.
On the subject of simulation, although it is not possible not to know something we already have learned, to do something that is meant to be *wrong* (through *experimenting*) opens up new approaches to *the right thing*.

The theoretical triangle

The architectural structures that are being built and their surroundings are the vortex of the text and images that will configure the printed document.
The theoretical triangle that was used to approach the place was designed by *programs*, *processes* and *materials*. These are terms of the architectural *jargon*.
The programs relate to an essential autonomy. By essential autonomy we mean shelter, water and food. A ruin close to a water stream was recovered and a new roof was erected. A pond to harvest groundwater was digged with a very close approach to the texture of the terrain. The term *corpus loci* was coined because it showed more

appropriate than *genius loci*. A vegetable garden in permaculture style was built. A wind turbine was set up with parts found in a junkyard[5].

On the second vertex, the processes implied the biggest change to the architect regular praxis.

From the beginning it was used *direct architecture*, the physical involvement of the architect in the process of construction. More than one thousand cubic meters of briars were cut with a trimmer along the stream[6] and tons of rubbish were removed from inside the ruin[7]. The severity of this work implied a commitment of body and soul and obviously had influences on the reasoning.

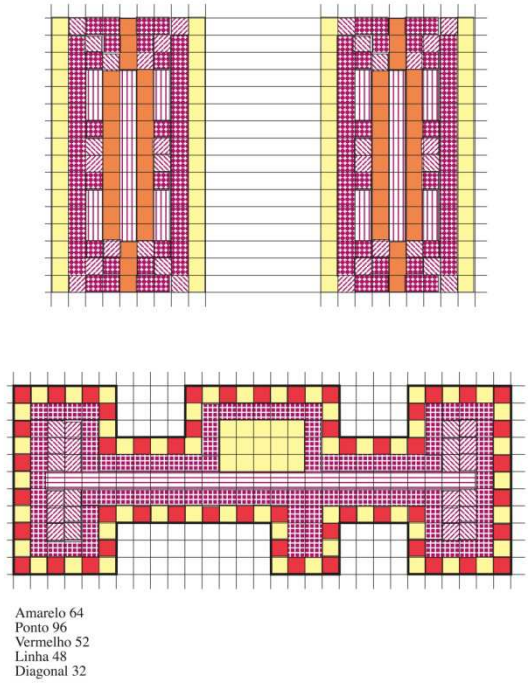
To relate with the *project*, several modes of representation were implemented. The spoken word was an inevitable system of representation and the most cartesian of them all. There was not a final drawing in the beginning, only of the next step or two. The main representation system was doing, showing and dismantling, superimposing the subject and the object.

[5] A video document of the working wind propeller can be seen at [online] http://www.youtube.com/watch?v=CU68ovCjAQY

[6] This work gave place to an article published in the contemporary art magazine Artecapital. António Coxito, *Corta Mato*, July 2013. [online] http://artecapital.net/arq_des-97-antonio-coxito-corta-mato-design-industrial-do-ponto-de-vista-do-utilizador

[7] A video document of that work can be seen at [online] http://www.youtube.com/watch?v=V0rzsXUOJIc

It was seldom used an absolute representation, with plans and sections or precise measuring. (In any way, the existing walls were irregular on the three axes). There were used sketches in an odd paper or in the sand.
Working with what was available revealed the difference between sustainable and sustained. A pavement was thought and laid after having found 303 tiles by the road. Serendipity[8] began to demonstrate its validity.



Finally, and eventually the oddest part of the process, there was an implicit integration of the work of the few interveners (not architects, but these ones hadn't studied architecture at all) in the *truth* of what was built. This implied an overall condition of kantian autonomy and gave place to a mood without prejudices.
The triangle was closed with the materials, where it was introduced a neologism and

[8] *Serendipity* was coined by Horace Walpole in 1754 refering to a Persian tale, *The Three Princes of Serendip*, who were "always making discoveries, by accidents and sagacity, of things which they were not in quest of".

apparent oxymoron: *the contemporary vernacular*.

The vernacular acquired new characteristics with contemporaneity. Presently, the more available, cheaper and appropriable materials are those with which are built the slums, the *favelas*, the *bidonvilles*, the *barracas*, the *musseques* and the shantytowns. Plates, shuttering, cardboard and bricks without coating. In this approach, the unique feature of vernacular that has changed was, like many other habits and materials, to have ceased to correspond to a specific location. Today, this vernacular is global.

These materials were organized in four categories: meta-materials, hidden materials, materials with industrial purposes and packaging.

The first group, the meta-materials, refers to those who support the building of conventional architecture but who leave the building when it is completed. Scaffoldings and formwork are some of these but they extend to the entire construction yard and their ephemeral structures, including portable toilets and containers.

These are mainly found in developed countries, as scrap sold by weight or in the used market. In squats, yards and allotments of London and Amsterdam they are applied differently to trailer parks in the U.S.A.

The second group, hidden materials, refers to those who belong to the building but rarely arise. Usually structural, they refer to concrete beams or iron frames but also to pipes. The perforated brick, when uncoated, belongs to this group.

These are most common in South America and Southern Europe. In Europe they

stand for unfinished. In South America, Sérgio Ferro considers these THE materials; the coating hides the work of the craftsman that should never be hidden (Ferro, 2006).
In the third category the materials with industrial purposes, those who have become of conventional use by architects and designers in the city and in the dwelling itself but have an industrial, rude and pragmatic temper, like plates, hardware, cables or cement in sight. These are now commonly referred to as industrial vernacular.
The presence of this group of materials is evident in all contemporary vernacular constructions, in any part of the world. Rusty corrugated zinc and wires in the sky give these places its most characteristic pattern.
Finally the packaging, which accounts for over forty percent of the world waste and often recycled for these constructions. We refer to cardboards and tarpaulins, plastic bottles and wrappers of industrial parts and their usual support, the pallets.
The materials of this fourth group are very diverse in appropriations, from the gypsy camps of Europe to sophisticated recyclable design, comprising the most unhealthy districts of garbage gleaners of the coastal cities of the Gulf of Guinea. In Portugal, the packaging of parts for the automotive industry are much in demand for *ad-hoc* constructions such as agricultural sheds.

The construction

The construction took place in a farm close to Vila Velha de Ródão named Tapada da Tojeira. It happens to be a biological farm with about 400 acres but the relevant fact about it has been CENTA (Centro de Estudos de Novas Tendências Artísticas) that held there residences on contemporary arts during twenty years. The receptivity of the landowners has been a crucial backing to make this research possible.
Four months were spent in 2013, between May and September, working on place, building and documenting, and helping at the same time on the agricultural farm to return the kindness of the owners.
An abandoned barn one kilometer away from the main house was chosen to intervene, due to its proximity to a stream. Its plan consisted of a square with about seven meters on the side addorsed to a slope, with its cobble and schist walls slightly damaged. Briars and rubbish were removed. A pond was digged and the clay on its bottom was used to fix the damaged walls of the barn. Some construction props and rods from scaffoldings were bought as scrap to frame the structure, that didn't touched the existing walls. Corrugated plates of *onduline*, recently removed from the ceiling of the olive oil mill, were applied in the first coverage. Steel cables found in a

junkyard were used to steady the set.
The construction is still unfinished and as long as it won't be used will tend to be regained by the wild. It will never be a closed case.

The data

The data collected along the process was both descriptive and analytic.
The systematic collection of some of that information was organized in *themes of architecture*. It was found that there were major themes that remained (1) but some acquired new meanings (2) and that new themes emerged (3).

(1)	(2)	(3)
Structural concepts	*Genius loci* > *corpus loci*	Briars
Structure	Engineering > *bricolage*	Rubbish
Coverage	Sustained > sustainable	Ponds
Pavements	Representation > construction	
Binders		
Sanitation		

In spite of this enquiry structure, the findings are described in a perceptive approach. The process of building and documenting became exceptional and therefore is not

meant to be reproduced. This moved the reasoning away from models.
The second outcome of this labour generated another kind of document. This one is more assertive, "whose goal is communicable knowledge" (Archer, 1995), but it was written as an Addendum and is called *College of sound construction*.

College of sound construction

By a matter of coherence it is developed the writing of a course program to build under the motto of autonomy. This document describes about twenty subjects, the assets each tutor should have to minister them and the overall concept and aim of the proposal.
The course would be organized in a one year seminar in Tapada da Tojeira and Lisbon. An essential autonomy (to build a shelter, to manage the water and to produce nourishment) would be the tangible outcome of each student during the year. Along this path it would be conveyed the marxist history of commodity, the water and life cycles and nutricionism, creative writing and drawing or practical notions of legislation.
As an Addendum, it is not part of the essay, but the petulance remains and draws one more mark to the evaluation and validation question.

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