

# Chapter 8

## ...Where to Place the Voids

### Designing the Context: Morphological and Cultural Issues

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“The art of structure is how and where to place the voids.  
If you think about the void, instead of working  
with solids elements, the truth emerges”  
(McCleary, Iglesias, 1997).

**Abstract** This chapter offers multiple keys for unveiling, representing and constructing the context, figured out in between architectural and landscape design. Context becomes a multi-scalar Latent Environment that is made visible -and transformed- with Diagrams and Cartographies. Context, understood with reference to time as an interactive and living organism, drives us to design architectural successions of Landscape Events.

#### 8.1 Introduction

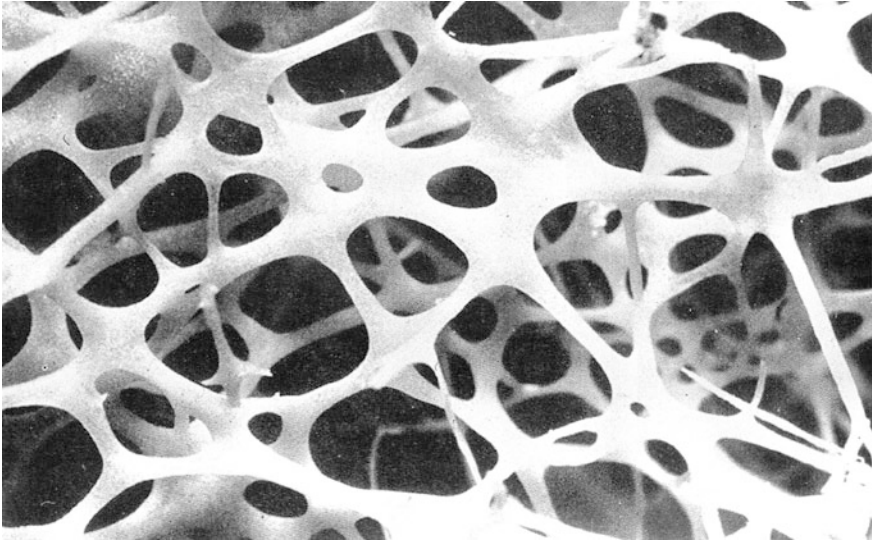
Robert Le Ricolais (1894–1977) was a curious and experimental engineer who taught us to reflect on the voids. After an insightful observation of the human skeleton, which weighs five kilos but can support twenty times this weight, he proposed to build structures by defining their holes or with hollow elements. This apparent paradox (“*strength without weight*”) triggered a new framework that diverged from the deterministic outlook common to engineers at that moment.

In the same way, the musician John Cage composed his most famous piece 4' 33", four minutes and thirty three seconds of silence. After visiting an anechoic chamber, he realized that he could hear his own blood circulation and nervous system, so silence is audible – it doesn't exist (Cage 1999). With this idea, he amplified the context of music by utilizing random and “non-desirable sounds” (noises) in addition to “desirable sounds” (notes correctly played).

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**Fig. 8.1** Microphotography of osseous tissue (Source McCleary and Iglesias 1997)

These important figures redefined or amplified the context of a discipline (structural engine or music) by paying attention to the apparently non-visible characteristics of reality (voids and noises). They gave importance to events that previously hadn't been taken into account and as such proposed a new framework that triggered new opportunities (Fig. 8.1).

## 8.2 Constructing the Context: From Landscape of Events to Latent Environment

Looking at the dictionary, we have re-appropriated different and objective notions of Context and created our personal definition<sup>1</sup>: Context is “an environment that determines the meaning and value of an idea, a project or a construction”. This Environment refers to “the set of extrinsic conditions that a system needs to run”. But these conditions are not ideal or static anymore, they change, so current reality becomes a *Landscape of Events*. It is a hyper-place constituted by dynamic, unfinished and evolutionary situations that offer a multiplicity of interpretations. It is not only a result of the topography, climate and property boundaries, but it is also a consequence of population statistics, sociological data, cultural information,

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<sup>1</sup>Interpretation of different notions of *Context* and *Environment* from “Dictionary of Spanish Real Academy”.

meteorological and geographical conditions, urban regulations, territorial claims, economical management, technological arrangement and aesthetic coherence.

Therefore, a context embraces numerous environments and situations that, as architects, we have to learn how to track, represent and interpret exhaustively and precisely, because reality is not simple. So, with the same context, several individuals select a different set of parameters which are considered as “architectonical conditions of opportunity”. By them, we are activating a *Latent Environment* that constitutes a new and concrete reality where we place our project. In this way, the context of a project will be always a personal environment, interpreted through our experience – references, knowledge, images, memory.

### 8.3 Context Is Multi-scalar

An apparently small event, such as the official launch of a technical device celebrated in a small auditorium in San Francisco, can have an instantaneous and widespread effect in the world economy. So like an electrocardiogram, the NASQAD (National Association of Securities Dealers Automated Quotation) measures the impact of Steve Jobs’ words during the launched Ipad2 in real time: Jobs’ greets the audience, shares go up \$2.77; Jobs says that he has 90 % of the market, shares shoot up, \$3.67; Jobs leaves the stage and another executive goes on with the presentation, half of the increase is lost; Jobs comes back to the stage, shares go up \$2.93 (Martin 2011, p 60).

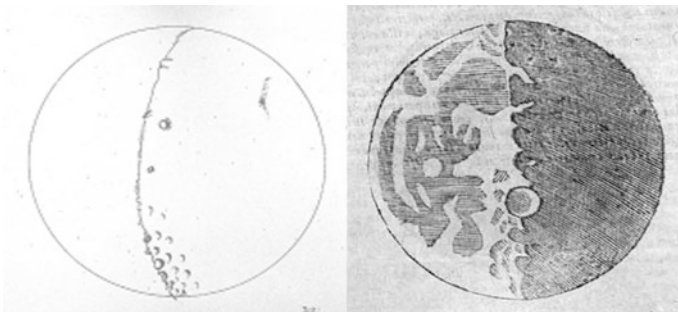
Because we live in a global world where the most distant architecture can sometimes be more familiar than the closest local event, we can’t assume anymore that context refers only to our closest surroundings (Soriano 2009). If we want to understand the real magnitude of a context, we must take into account data on any scale, from the global economic situation to physical restrictions of a piece of land.

Information constructs a Project. Everything becomes data or can be used as data: documents, numbers, interviews, images, journalistic articles, photographs... We must be exhaustive and precise, and we should avoid being guided by appearances. We need to understand context in its entirety so we can act precisely and position our projects in a determined place, with a determined economy and a determined program (Soriano 2010). That is why we propose Acupuncture (Lerner 2005) as a system by which projects are inserted in reality. A simple action that helps to create a chain of positive reactions that will provide vital energy to a place. This approach is a process, it is successful when an organism finally takes charge of its own revitalization. This requires speed and precision, introducing a needle slowly and painfully is meaningless. We quote Jaime Lerner, author of the reference book *Urban Acupuncture*, in view to explain how we want our projects to work: “We know that this approach is a process. It doesn’t matter how good it is if it doesn’t cause an immediate transformation. Mostly it is a spark that starts an action and its subsequent spread. That’s what I call good Acupuncture, real Acupuncture”.

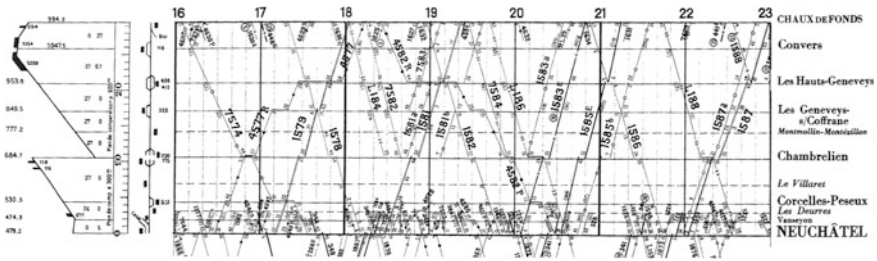
## 8.4 Representing a Context Is Starting Its Transformation

These are the first and second representations of the surface of the moon (1609). After the discovery of the telescope, scientist Thomas Harriot could look at the moon in detail and draw its first cartography: a rough line that separated light and dark. But he was not able to interpret it. A few days later, Italian astronomer Galileo Galilei, by using a new pictorial technique of representation (*chiaroscuro*), was able to interpret the shadows of this satellite and revealed the moon in relief (Castro and Marcos 2010). The transference of a technique of representation between different disciplines – from art to science, in this case – provided a relevant discovery for contemporary science: the moon is not an ideal and smooth sphere, but change and imperfection are part of its nature (Fig. 8.2).

As designers, architects work with every kind of data detected in context by turning them into parameters of our architecture. Firstly, we allow ourselves to get impressed by the reality, looking at everything with the same intensity. Then we choose and activate that part that we call *Latent Environment* which constitutes our personal impression of the place, our starting point. In a second round, we focus on the registration of data: not proposing anything but describing the face of reality in which we are interested. This record should be as objective, precise and complete as possible, only in this way can different data become compatible and therefore handled and transformable. So we are interested in representation techniques that provide exchange and dialogue between different kinds of information. The project is considered a living experiment, so we need to work with open documents that are transformable and implementable. At the same time, as reality is a *Landscape of Events*, it is a dynamic phenomenon so we look for techniques of representation of dynamic processes, which explains the fluent condition of a context with statics and plain drawings. Traditional techniques can be implemented with transferable ones from other disciplines. Good sources of representation systems are meteorological graphics, hydrological studies in flood risk areas, thermal maps, predictions of



**Fig. 8.2** Representations of the moon made by Thomas Harriot and Galileo Galilei respectively (Source <http://www.nature.com/nature/journal/v467/n7314/full/467398a.html>)



**Fig. 8.3** *Cartography* train schedule which visualizes the velocity and stops of the different trains over a single track compared to the profile (Source Tufte 2001)

useful life of materials, morphological studies of crystals according to temperature and saturation, comfort climographs, maps of ocean currents, drawings of migratory routes of animals, analysis and graphics of the market, etc.

## 8.5 Revealing Context with Diagrams and Cartographies

At this point, two concepts are introduced in relation to representation of context: Diagram<sup>2</sup> (“representation of a process”) and Cartography<sup>3</sup> (“representation of a process in/of a place”) (Fig. 8.3).

On one hand, Diagrams (Soriano 2002) are precise and concrete drawings; they are syntheses of information, not reductions. This instrument is a procedure in itself and we construct them. It provides a precise but open, exact but diffused control of data, providing links, variations, alterations, assemblies, etc. Diagrams are understood here as thinking mechanisms because they do not only represent but also produce situations.

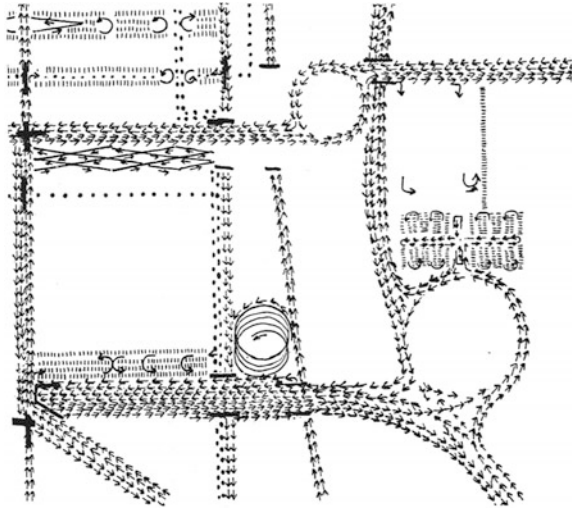
On the other hand, Cartographies are “geographical maps of a place”, but we would like to redefine them as “*geological maps of a place*”. This geological character would add a reflection on terms like transformation, evolution, growth and change. It turns cartographies into “representation techniques which show measurable and descriptive relations of a place dealing with its composition, internal structure and generative process”.

We use diagrams to describe reality and we apply them in the construction of new cartographies that represent the *Latent Environment* of a place. These are representations of what is possible, what is real and what is needed.

<sup>2</sup>Definition of *Diagram* in Dictionary of Spanish Real Academy.

<sup>3</sup>Interpretation of different notions of *Cartography* from Dictionary of Spanish Real Academy.

**Fig. 8.4** Traffic Map in Philadelphia, by Louis Kahn  
(Source Soriano 2002)



The importance of representation techniques was stated by Deleuze: “each representation system can be ascribed to a different organizing capacity of the world”. And the map of Philadelphia made by Louis Kahn in 1953 illustrates perfectly this idea. He used arrows, dashes and crosses in order to mark the path and speed of cars, buses, trucks and streetcars with varying speeds and destinations. However, the physical infrastructure of the city was not depicted. Rather, the street grid was only implied as a reversal of the use patterns of those who travel through it (Ábalos, 2005). This cartography implies a determined order of the place in terms of flow, speed and movement, where expressways are understood as rivers and streets as canals, so we will operate with harbors and docks (Fig. 8.4).

## 8.6 Project and Context as Interactive and Living Organisms

A fisherman by the river, sitting with his TV and an ice box, with a car behind him, all neat. This image illustrated the project “An Experimental Bottery” designed by David Greene (Archigram) in 1969. Here Nature becomes architectural material, which can build new and complete realities together with technical devices. It represents a temporary place, “an architecture that exists only with reference to time”. Everything can be removed and just a slight footprint – squashed grass – will be visible in the near future. Some sophisticated and portable technical elements – hardware – transform this space into an instant place, an ephemeral environment that allows us to think that “the world will perhaps again be a garden” (Cook and Webb 1999). We are interested in this incorporation of adaptability to architectural



objects, in the possibility of designing architectural “moments”, which implies an idea of transformation, flexibility and dynamism.

The aim of a complete understanding of Context is its transference to our working process and so the integration of our projects into their concrete reality. In order to get that active presence of the Context into the project of Architecture, we propose to design like “Gardeners” who, with a deep knowledge of (architectural) working material, operate from experience, thinking about different states of project along its life and about how it will be related with its changing environment. Thus, an Architect will “interpret material and Context as interactive living organisms, and design a succession of future events”.

With the new technologies, Architects are able to represent dynamic processes and work on dynamic fields, therefore we should adapt our methods and techniques

**Fig. 8.5** LAWUN. Project n°1. An Experimental Bottery 1969, David Greene (Source Cook and Webb 1999)





**Fig. 8.6** Profile of a forest plot 20 × 30 m at Montagne La Fumée, French Guiana: trees of the present in thick lines, trees of the future in *dotted lines* and trees of the past in *thin lines*. Roel of A.A. Oldeman (Source Ishigami 2010)

to this professional reality. According to the professor Iñaki Ábalos, disciplines such as Landscaping and Environmental Sciences become references in this field, “not because of their scientific principles of ecology, but because of their methodological and creative dimensions. By working with phenomena of biological change and succession, they give consistent responses within a Context simultaneously natural and artificial” (Ábalos 2009). On this way, we could talk about Architecture in terms of dynamic understanding of elements, growth models, erosion, useful life, methods of ecological control, dynamics of occupation and levels of integration (Figs. 8.5 and 8.6).

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