The Game of Cities

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Abstract

The Game of Cities is an academic exercise of urban morphology that brings out the importance of streets in the process of city-making.

1 Introduction

Streets — i.e. the network of public spaces of a city, dedicated to circulation and leisure — have a crucial role in the physical form of cities, exerting a powerful long-term influence to people. Many streets survive largely unchanged over time, even during wars and significant natural disasters. On the contrary, plots tend to change faster than streets, while buildings themselves tend to change even faster. The permanence and dominance of streets make them a fundamental object of analysis for urban morphologists — the par excellence scientists of urban form. The space syntax approach (Hillier, 1996; Hillier and Hanson, 1984) is one of the most noteworthy examples of the reliance on streets as a way of understanding the physical form and structure of cities.

In the meantime, most architectural schools lock their focus on buildings (Oliveira, 2012). Even at the level of the city, lecturers and students tend to place emphasis on the analysis and design of buildings, and not on streets or plots. The Game of Cities comes to compensate for this tendency by highlighting the importance of streets in the process of city-making. As an exercise in urban morphology, the game should raise student awareness that the city-making is a collective work, made of many contributions over time. Each contribution is influenced by an existing framework (upstream), and influences the design of future actions (downstream). The exercise was developed for — and tested in — a course of architecture, but can be also applied in courses of geography and planning.
2 Process

The Game of Cities is played in a computer aided design (CAD) environment, projected on the wall, with the players being coordinated by a moderator. The game is developed in two parts, with a common process (Figure 1) but different contents (Figures 2 and 3).

![Figure 1](image1.png) The general process of the game: the same task is applied successively by the players

2.1 Part one

The first part of the game presents a site merely as a topographic relief — preferably of a real city (Figure 2). The first player is called to play, while all the others watch, and is asked to draw one element from the constituents of urban form:

- **Streets**, and also squares and green spaces
- **Plots**, eventually forming an urban block
- **Buildings**, including common and exceptional ones

If a player decides to design streets or plots, the width and length of each of these elements is enough. If a player designs one or more buildings, then must also provide the height and the use (e.g. residence, commerce/services/offices, public equipment, industry). When the design of the first player is concluded, the second player is called to play.

![Figure 2](image2.png) Topography of the site (3km × 3km, Boavista, Porto)

Contrary to the first player of the game, who finds a totally vacant terrain, the second player has to consider not only the topography, but also the element of urban form designed by the first player. One by one, all players are called to play. If the number of players is high (e.g. 15 or more), then each player should play only once. If the number of players is low, it would be interesting to
go through a second round. The result of the game will be a small part of a city with different inputs from the different actors, simulating what happens in real life.

2.2 Part two

The second part of the game goes one step further: the diagram of the site reveals not only the topography, but also the existing street system (Figure 3). The street patterns may turn the site familiar, and some players are likely to recognise it.

![Figure 3](image.png)

**Figure 3** Topography and street system of the site (3km × 3km, Boavista, Porto)

The dynamics of the game in the second part are very similar to the first, yet the actions of each player are considerably conditioned by the street system. The players are expected to gradually understand the fact and the way that a street system will make a contribution to the organisation of the elements of the form of the city.

3 Discussion

Most architectural students, in different universities around the world, are trained to design ‘amazing’ buildings — but buildings alone do not make a city: people and action are essential (Perdicoúlis, 2011), and the ‘grass roots’ of the city are at the street level. It could be even argued that there are vibrant cities with no amazing buildings at all — or that ‘amazing’ does not necessarily mean ‘high-tech’ or ‘sophisticated’.

The contribution of the *Game of Cities* is towards (a) a change of focus — or even the architectural paradigm in its planning function — from the building to the streets, and (b) the conscience that city-making is a collective work, achieved in successive steps of development by many actors.

4 Continuation

The *Game of Cities* is easy to play in the classroom, time after time. It should not be long before someone in the next generation of architects gets to think ‘out of the box’ (namely, the building) and bring the game to the city council — starting from stage of development.
References


