

Mediating the Design of a “Digital Park” in Vrilissia Athens

Mattheos Papavasiliou
Entasis architects, Athens
<http://www.entasis.gr>

Architects trying to promote design decisions to clients are faced with the dilemma of not having definite arguments that would convince clients of taking the right decision. Especially on urban design projects architects are faced with various contradicting wishes of citizens that most of the times are very difficult to justify. The paper exemplifies such a case where the architects had to invent a technique based on the theories of space syntax to help the municipality authorities to evaluate the design of a proposed urban park.

Keywords: *Design decisions; design evaluation techniques; space syntax techniques.*

The challenge for the contemporary Greek Town is being taken up in the “perturbation zones”, the “urban voids” and the “abandoned areas”. These are the sites on which efforts are being increasingly concentrated by municipalities around metropolitan Athens. Such an abandoned military installation is being recently planned to get integrated into the municipality of Vrilissia.

The area of about 42000 m² is situated on the edge of Vrilissia and being abandoned for several years was forming an intensive obstacle to the surrounding area. The municipality authorities of Vrilissia having about a third of the budget needed to redevelop the area had to decide which third would integrate first in to the community. For three months the municipality authorities could not have a clear understanding of the decisions needed to get the area integrated into the community.

The limitation of the budget allowing developing 14000 m² of the abandoned area intrigued various arguments between different political parties.

The designers employed the tessellation dia-

grams technique developed by Hillier (1996) to define the most critical part integration wise to the city to get developed first (Figure 1).

The technique divides the given geometry in an array of squares testing the connection between them and the surrounding area. The analytical tool used to calculate the connectivity of each tessella-

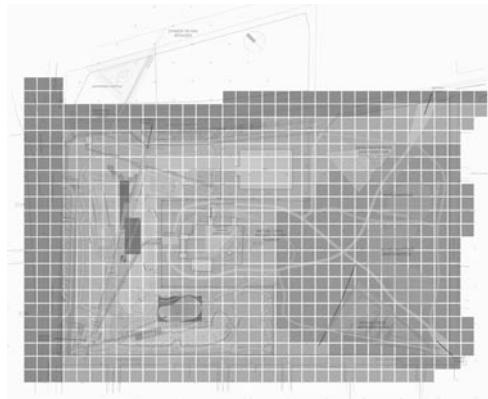


Figure 1
a and b the two proposed areas to get developed . c the area that tessellation analysis of the geometry of the area and the surrounding street networks defined as the most appropriate for the integration to the city of Vrilissia.

tion entity is the same as defined by Hillier and Hanson (1984) in the analysis of the axial maps. The only differentiation is in the representation of the model by the means of tessellations.

The argument to the council to accept the technique was that once the first stage of the development was successful for the area it was much easier to convince the central government to fund the continuation of the project.

After the initial selection of the area again several options of where the area should get opened to the urban tissue, allowing the passengers to crisscross it and finally integrating the park with the municipality caused intensive arguments in the Council.

The designers used information technology to mediate their design through the use of several representational maps of the available options.

Mainly using the Space Syntax theory as an analysis tool, the designers developed a series of overlapping models of the surrounding area that helped the clients understand the validity of the proposed integration with the urban tissue (Figure 2). With the particular use of the space syntax map of the area, by testing various connections the designers had the validation needed to proceed to the strategic plan including the incorporation of the park in an extend-

ed promenade network.

For this reason a direct promenade deck crosses the park. This wooden deck constitutes the main axis for walking through the park and integrates the various park functions. Four distinct functional unities are organised along the axis: the entrance, the open playground, the area with the water features and the skateboard rink and finally the climbing wall area. An earthen footpath runs along the park perimeter connecting the afore-mentioned parts to the pool and the playground.

Through the analytical process gradually emerged the idea of transforming the developing area into a thematic park that would illustrate the use of environmental design attracting young visitors to use particular areas.

The proposal attempts to assign an ecological meaning to the urban void left by the navy base, turning it to an environmental pocket within the city that can be taken as a model of how urban areas recover their original 'natural' character. The principles of sustainable design have been applied, turning to advantage the local climatic conditions for producing a favourable micro-climate and achieving visual, thermal and acoustic comfort. In more detail the proposal includes:

- Preservation of the existing green that is enriched both in quantity and quality.
- Minimisation of the 'hard' paving and extensive use of soft surfaces such as earth and grass.
- A pool appropriately specified so as to function as a natural water reserve that hosts its own fauna and flora.
- Provision for 'ad-hoc' sporting activities, i.e. those that do not require hard paving and fencing, such as jogging, free football and table tennis.
- Incorporation of photovoltaic modules in the canopies, in order to meet the energy requirements of the park.
- Enhancement of environmental education by means of four installations that demonstrate how renewable energies such as solar, wind, hydro-electric and biomass can be obtained and used.

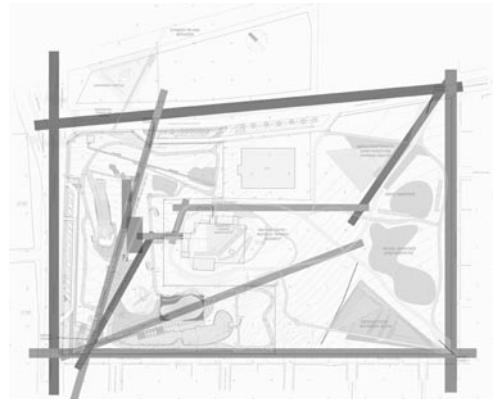


Figure 2
Axial analysis of the surrounding to development area suggests the emphasis given to the main promenade A proposed by the design team. Area C as most segregated area under developing chosen to house the children's playground and the pool.

The thematic use of the park transformed the whole project and introduced the need for the ubiquitous presence of the area to the whole city. The initial lack of direction as where to get the development done lost any reasoning by the end by introducing free internet access to visitors and webcams to central parts of the park, the designers achieved a generous integration to the community.

Information technology finally has been used to generate representations of reality needed to help the authorities decide on different aspects of the project and specifically on the materiality of the design and the choice of specific forms.

References

- Hillier B, and Hanson J.: 1984, *The Social Logic of Space* (Cambridge University Press, Cambridge).
- Hillier B, :1996, *Space is the Machine*, Cambridge University Press, Cambridge.
- Markus T, 1993, *Buildings and Power*, Routledge, London.
- Steadman P.: 1980, *Architectural Morphology* , Pion, London.



Figure 3 and 4
“Digital Park” in Vrilissia, Athens, 2005.
Architect: Mattheos Papavasiliou
Design Team: Mattheos Papavasiliou, Konstantina Karvountzi, Eleni Koumpli.