Shrinking ElectriCity

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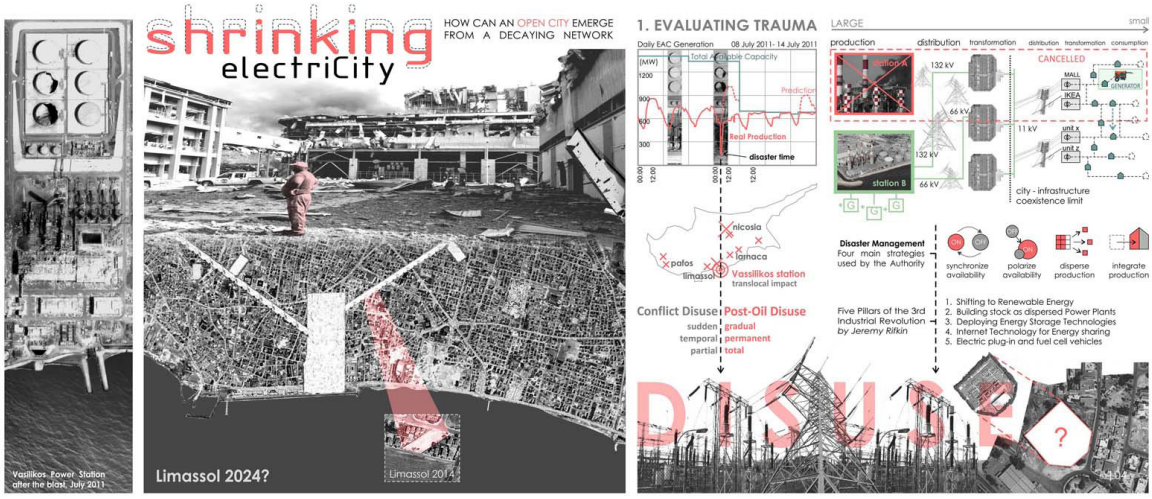
This research based thesis explores a critical and creative management of a traumatic situation in Cyprus 2011, in order to raise and enrich a debate which sees the resilience to trauma as a design tool and part of an evolutionary process rather than another version of a dystopian future. Specifically, the project deals with the electricity infrastructure of Cyprus designed as an unwanted and "banned" object from the urban fabric (ur-banned), due to its inhospitable and critical operation.

Prompted by the collapse of the grid in July 2011 and the disruption of the city's rhythm for the next few months - effects of explosion that destroyed the island's largest power station - the project examines a scenario in which the disuse of infrastructure is not sudden, temporal and partial but gradual, permanent and in whole. This "shrinking infrastructure" assumption can be made in the context of a transition to the post-oil city in which the distance between energy production and consumption is reduced drastically due to the exploitation of renewable sources on site, thereby canceling the voltage transformation process needed to cover long distances.

A new version of the network is proposed, one that prepares the end of its first life and the succession of a second in which it is not isolated, but integrated into the urban network. A hybrid network that no longer functions exclusively for Electricity Authority Cyprus (EAC) but constitutes an extra layer of reading and organizing an emerging Open City. Can "neighboring Infrastructure" be replaced with "Inhabiting Infrastructure"? At the same time, the proposal creates a basis for the gradual shrinkage of the city itself as a response to the urban sprawl which is inconsistent with sustainable design principles. This transition premises the design of the subsequent nodes and links, the transformation of the existing ones and the management of the material eliminated from the network during this process. Thus, the implementation of the proposal is placed in the present and projected in to a possible future.

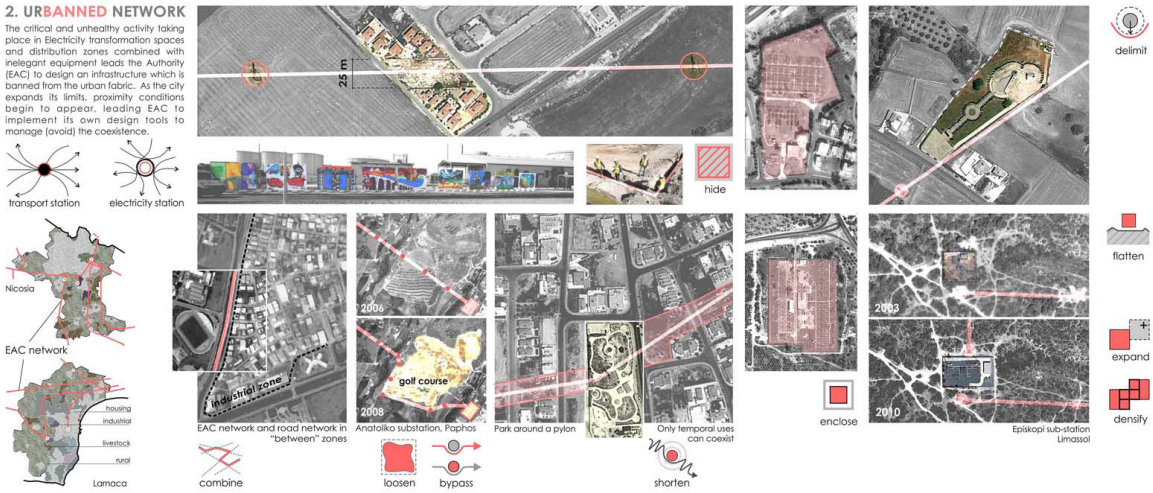
How can the disaster management tools used by the Authorities propose design tools for a shrinking infrastructure? How is the footprint of substations and transmission lines redesigned when the equipment is removed and how will it accommodate housing and other emerging uses?

The architect is challenged to deal with sites and assets which until now belonged to technocrats and were beyond the usual architectural practice.



2. URBANNED NETWORK

The critical and unhealthy activity taking place in Electricity transformation spaces and distribution zones combined with inelegant equipment leads the Authority (EAC) to design an infrastructure which is banned from the urban fabric. As the city expands its limits, proximity conditions begin to appear, leading EAC to implement its own design tools to manage (avoid) the coexistence.



3. HYBRID NETWORK