

What is “Sustainable” about the Westbahnhof Sustainable Urban Implantation project?

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Eight years ago we started work on a project to design a new urban district, a New Town within a Town as an overbuilding above the major train yard and station in Vienna, the Westbahnhof. The project had two parallel and interrelated parts – the completion of the theory of sustainable urban development and the further development of a new urban form to support that theory and to be supported by that theory. The studies resulted in a series of urban design proposals each one more complex, more comprehensive and more responsive than its predecessor. Here are some images which describe the design of that project:

When we present these proposals the response is often, “That’s a fascinating project, but I don’t understand what makes it sustainable? Design – architectural design and urban design - is a trial and error process. To design a complex object – a building or a city – is a very different endeavor from analyzing an existing building or city. As such there is no one thing or list of things which makes the proposal sustainable. Sustainability is a question of relationships. Sustainability occurs through an initial design process and an ongoing maintenance-governance process. The sustainable city models that we have been developing for the Westbahnhof, is not the only possible solution. In fact we foresee that as sustainable cities develop, each one will be unique in its form, its systems and its identity- much more so than modern unsustainable cities, which increasingly look more and more alike. This is because each city will derive from a different culture, different traditions, different languages, different topography, climate, resources, and a different history. What will make the Westbahnhof project sustainable, should it be realized, is the process of its genesis as determined in our operational definition. Through this sort of process the Westbahnhof designs have emerged. Each of the particular characteristics of the design can be described and defended on its individual merits as being patterns which support and facilitate sustainable relationships and processes. This is the first level of sustainability – the tools for sustainability level. There have been many successful individual projects at the level of tools including so-called green architecture, renewable energy, alternative economic programs, participatory schemas, etc. Although in the future the number and efficacy of these tools will certainly increase, we already have more than enough well documented case studies to operate comfortably at the level of sustainability tools. The second level however is more important. This is the level of sustainability processes and at this level, the level at which sustainable cities will soon emerge, there are no realized examples. The Westbahnhof is one of the first such second level proposals. In the trial-and-error process by which the Westbahnhof designs were developed, many different patterns of building and urban relationships were tried at many different scales. The best ones were used and the others were saved for possible future use. Decisions about saving the differing proposals were based upon three levels of quality. First was their immediate quality, i.e. how well the decisions worked locally (apartment design, materials, orientation, formation of public space, variety of movement patterns, adaptability to change, energy efficiency, enhancement of social patterns, handicap access, etc.) Second was how well they worked with and supported other patterns. The third was how well they supported the systems relationships within the city. Analytically, that is to say after we have a design or several designs to analyze, we can now make a long list of desirable characteristics. The list would be a long one with some of its

characterizes already described when I showed the slides. These would be things like a human-scaled city, with no cars, walkable, but with local public transit, with easy access to major transit lines, no cars, network of greatly varying public space, gardens everywhere, continuity of handicap accessible paths, high density without tall buildings, solar access for all, energy and food autonomy, no waste or pollution, (i.e. regenerative systems), inner hill with generous, daylight galleria spaces and large scale infrastructure and other production facilities, full service town with many small shops and other facilities in a pedestrian environment, markets, education, recreation, daycare, etc. Less important than what the town includes is how these things got there. The “informed, participatory, balance-seeking process,” creates a climate of negotiation whereby facilities are incorporated into the town not just because the stakeholders would like to include them, but because their place in the city-system has been secured by a process which balances out their positive and negative consequences to make the city work as an urban ecosystem which “doesn’t export any negative imbalances beyond its territory or into the future.”