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## User Experiences and the Invention of Sustainability

The Case of Passages and Courtyards
October, 2014

In response to the call for Contributions,

Architecture and Knowledge: Critical Theories, Methods, and Practices:

For Settings of Education, For Professional Setting, and for

Settings of Social Urban Planning Participation

Theme: Post-occupancy

## Abstract

This paper aims to highlight one of the sustainable design strategies applied within Masdar Institute of Science and Technology (MIST), which forms a part of Masdar eco-city that emerged within a particular context supporting a specific conception in relation to sustainability. The design strategy has focused on the spaces between buildings, which were intended to comprise narrow passages and courtyards. Such spaces were inspired by vernacular treatments while at the same time being based on and driven by technology. The intention was to create such spaces in a way that allowed light and breeze through and blocked heat to create passively-cooled and shaded spaces for social interaction and pedestrian activity. Such spaces were further intended to reflect the passive cooling and shading effects on the buildings themselves. Affecting both spaces and buildings, the elaborated design strategies were expected to reduce the cooling loads with less reliance on active systems.

The emergence of such design strategy, however, is argued not to be one directional, simple, or straightforward process. De Leat and Mol (2000)<sup>1</sup> indicated that "a new technology makes a community as much as the community makes it. It re-organizes the community around it". Accordingly, focus has been provided on the variety of demonstrated experiences, ways of usage, and modes of adaptation among different users towards this particular design strategy. This would attempt to tackle the extent to which it has affected the users' behavior, comfort, and willingness to engage with the design concept. At the same time, it would address the extent to which this strategy has been affected by users that adapt it, reshape it or recreate it in different ways. This gains further importance when reiterating that neither the design strategy nor the concerned users are currently the same as the ones that were initially planned, expected, or in other words, imagined at the time of design. This paper is inspired by an architectural background and is based on a series of formal and informal interviews with the designers, developers, and the users as well as site observations inside the site of the project in order to unpack, follow and trace the targeted design strategy.

<sup>1</sup> De Leat M. and Mol A., 2000. The Zimbabwe Bush Pump: Mechanics of a Fluid Technology. *Social Studies of Science*, vol. 30, no. 2, pp. 225 – 263.