THE OASIS MACHINE

PRODUCING PARADISE THROUGH RENEWABLE ENERGY TECHNOLOGIES

High-Tech Utopia or Dystopia?
A paradise metaphor, the projected brand image of Masdar City is that of a high-tech, zero-carbon utopia, an oasis in the traditional sense sheltered from the heat of the local desert climate through passive architecture and smart technologies, with ambitions of becoming the world's most sustainable and livable city. Despite this image projection, the unfolding of Masdar City has been hindered by economic setbacks, and in the context of its desert environment, has been critiqued as ‘placeless’, a ‘green ghost town’, and likened to a spaceship invoking imaginaries of high-tech dystopias (Günel, 2019). Despite the subjectivity of Masdar’s image, its ambition to become a leader in the research and design of renewable energy technologies and to pioneer a post-carbon urbanism is laden with ‘potential’ (Günel, 2019). Drawing from research relating the mobility of the ‘creative class’ of innovators to places rich in natural and cultural identities, (Florida, 2005), this project postulates that in order to transition from a primarily extractive economy to a post-carbon creative economy of knowledge and innovation, and to compete for human intellectual capital in the global scene, Masdar must infuse its brand image of a high-tech futuristic utopia with the lifestyle amenities of art, culture, and nature.

The Potential of the Paradise Imaginary as Place Identity
In contemplating the art, culture, and nature, may structure the place identity of Masdar, the dialectics of the desert as ‘source of life’, and the oasis as the source of life, is impossible to separate the Islamic imagination of the oasis as a reflection of paradise, the spiritual realm towards which the Qur'an directs its disciples to strive as their reward for this life’s hardship (Celanoglu, 1976). Poetically, the visual image of paradise has been reflected in places, and the desert oasis, expressed through architecture and the Islamic geometric arts through cosmological systems of circles and stars, depicted in Islamic paintings of gardens, and spatialized through garden design itself. In contemplating the potential of Masdar to generate in the context of the 21st century utopian ambitions of Masdar, the potentials of renewable energy technologies to generate novel representations of paradise as place identity come into question.

The Oasis Machine: The Technological Production of Paradise
Whereas the traditional oasis landscape or garden is geographically fixed, a product of the serendipitous emergence of ground water, the oasis or utopia of the 21st century by way of technological potential can exist anywhere in the desert. Emancipated from geography, and better aligned with the cosmos, the universe, the atmosphere, from which technology enables the extraction of solar energy to sustain life, the . In Masdar, the solar energy of the sun is harnessed for the desalination of brackish water, producing freshwater for consumption, gray or treated wastewater for irrigation and cultivation of vegetation, which ultimately sequesters carbon dioxide back into the ground. It can be likened to terraforming, or the transformation of the hostile ‘first nature’ of the desert geography and climate, into the accommodating environment of the oasis. This process can give rise to new garden types as cultural products.