Underground cities! just a futuristic idea essay

Design, Architecture

It also addresses on how underground spaces have been looked at in developing countries especially in India. The Global demand for a habitable space in urban cities has prompted for change in traditional approaches towards development. Can underground city be the next major futuristic movement? Can underground cities be the next future cities of the world? Keywords Future, future cities, futuristic movement, underground cities, science fiction, J. G Ballard, doomsday, Derringer, Nava Iambi, Iambi, Krishna Jaime, Hussein-Dish Guff. 1. Introduction 1. 1 The Future the city of future be? A set of arguments very difficult to respond to, as all subjects like philosophy, religion and science have clearly failed to correctly predict the future in the first place. Future may be defined as the indefinite time period after the present.

Its arrival is considered inevitable due to the existence of time and the laws of physics. In many ways the near future could be very much like the past, but with one exception – It will be completely different. Science fiction has always played an influential element for futuristic settings. Science fiction has always been used as a medium to discuss philosophical ideas about future. J. G Ballard a pioneer in science fiction literature describes future in a variety of different pigments, not all of them as rosy as the future is promised especially by the architectural world. The future as presented by J. G.

Ballard is Often bleak and includes environmental disaster, social collapse, urban isolation, etc. Science fiction Films have always been influenced by novo visions about the future. One of a utopian environment supported by hi tech information systems and co-ordinate by super infrastructure and second

an environment manufactured by global catastrophes, economic downturn, lien invasion, nuclear war, etc. Nava Iambi was created in 1972 with an intention of reducing overcrowding in Iambi city and to absorb the massive floating population by creating an attractive urban centre.

It has achieved success to some extent, but still, Iambi suffers from overcrowding and congestion. And it is predicted to be worse in the near future. Likewise there are numerous approaches and theories Of expanding present urban environment. But none has been able to generate a firm solution or a vision, which reacts positively to the future setting.

There’s a strong need to think about, city as a flexible and dynamic space that better responds to evolving circumstances. Can the idea of utilizing and developing underground spaces be taken up at a city level? Can going underneath the Earth’s surface be the new direction of attaining a comprehensive solution of all urban problems and requirements? 2. Underground spaces in the past and present Underground spaces as a habitable space have never been a distant idea. There are numerous examples where going beneath the Earth’s surface has been considered at both macro and micro level. A lot of people don’t realize s, that subterranean cities have not only existed, in many cases they have thrived.

Underground spaces have been used since the time of prehistoric man (caveman) in the form of caves. Caves were basically rock shelters used as dwellings by prehistoric man. Caves like Magus cave, Cave De lass Manes, Altair cave and many others. But if we look at Underground spaces at a

macro scale, then Derringer in Turkey, can be the best example of an entire human settlement, under the earth’s surface (Fig. 2.

1). Derringer is an ancient multi-level underground city of the Median Empire in NewerProvince, Turkey. It Extends to a depth of around 60 m, it was large enough to shelter 20, 000 people together with their livestock and food stores. Derringer consisted of seven underground levels and is said to have housed residents in thousands. This was not a small city and it was not a series of small cave homes either. Throughout Derringer were shops and churches, schools etc.

A unique room with a barrel vaulted ceiling is located in the second floor. It has been reported that this space was used as a religious school. The large 55 m ventilation shaft appears to have been used as a well.

But this city in a way was manufactured because of security concerns over the original city on the surface. The city was mostly used as refuge settlement during an emergency or crisis. Some of the strongest evidence to support this theory includes the self-contained fresh water supply, as well as the enormous stone, circular doors weighing up to 1, 000 pounds, that could seal off passageways from invaders (Fig 2. 2). Fig. 2.

2 *Sectional view of the city Fig. 2. 1 *One of the heavy stone doors This whole idea of secret and hidden underground refuge space seems to be adopted in some of the 20th century projects.

These cities were mainly created for military defense purpose and were termed as ‘ Secret underground cities’. Burlington was the code name of the

secret facility which was to house the British government in the event of nuclear war (Fig. 2. 3). Similarly an underground city in Beijing was built during the Sino-Soviet border war for the main purpose of military defense (Fig. 2.

4). A contrasting approach towards treatment of Underground space is seen in ‘ REST’ an underground city in Montreal, Canada (Fig 2. 5). Built in 1 962, here not all portions of the city are underground.

The underground portions and upper orations are connected through large tunnels, large enough to have shops on both sides. With over 32 km of tunnels spread over more than 12 km, connected areas include shopping malls, apartment buildings, hotels, banks, offices, museums, universities, seven metro stations. There are more than 120 exterior access points to the underground city. The city is used more prominently during winter season where the underground environment provides shelter from the harsh freezing cold weather. The recent global theory that the world will come to an end by the year 2012, bore plenty of reprising futuristic visions and interventions, in terms of architecture.

The vision of underground space as a habitable environment was taken into consideration more seriously. Fig. 2. 3 * Burlington-? Secret English City Fig. 2. 4 * Beijing Underground Fig. 2.

5 * Directional panels to buildings accessible through the underground city, in Bonaventure metro station, Montreal, Canada 3. Underground space in developing countries: India In India the usage of underground space in terms

of habitable environment is at a very micro level. Here underground space is mostly visualized as space or parking, transportation and storage spaces. There is little effort to consider cities beneath the earth’s surface. One example of the creative usage of underground space, prominent in ‘ Hussein-Dish Guff’ project. The project is a collaborative effort between the Indian artist M.

F. Hussein and architect B. V. Dish. Work was carried out in two phases: the first was the construction of the main cave as an underground art gallery (Fig 3. 1, 3.

2, 3. 3), while the second covered the surrounding structures including the paving, the café, and a separate art galley for exhibitions. Fig. 3. * Conceptual sketch. Fig. 3.

2 * Underground art gallery Fig. 3. 3 * The outer shell Krishna Jaime, one of the renowned architect of India, when asked in an interview conducted by The Times of India newspaper, of how he visualizes a futuristic Bangor city, stated: “ We have to go underground. The city will have buildings going 30-40 Ft below the surface. The transportation network, including the metro, will be underground by 2050.

If London, Japan and New York can have it, why can’t we? We can do it more systematically with advanced technology. We also have the best mining engineers in the state”. Almost in all urban cities of India, the idea of harvesting underground space is neglected or not considered. If our present urban cities are in chaos; can the underground approach be the futuristic

element which puts the chaos in order? Can we step out of the prison of monotony and start seeing the scope of habitable space, underneath the Earth’s surface? 4.

Conclusion In metropolitan cities of India, vertical structures seem to be the mantra of solving the problem for increasing demand for habitable space. But in the perseverance of this goal authorities have completely neglected the potentials of underground space.