

12th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FUTURE (D4)  
Contribution of Space Activities to Solving Global Societal Issues (2)

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CITY AS A SPACESHIP (CAAS) \*\* PLENARY PROPOSAL \*\*

**Abstract**

While past visions of future cities were often inspired by space and exploration of the unknown, thus based in science fiction, we propose future visions of the city based in science fact; that which is known and learned from our accumulated space exploration.

Technological spin-offs from space design could integrate seamlessly into our daily lives, but the confined conditions of extraterrestrial shuttles seldom serve as Earthly inspiration. If Earth were a spaceship and we were the Astronauts, how would we live differently? What if living conditions in outer space informed and exchanged the cramped social environments down below, such as the worker-housing and informal settlements of Mumbai? How can the way one thinks about space living systems inform the structure of urban development? Is the city is a spaceship? Yes.

We have explored the City as a Spaceship (CAAS) and the reciprocities it offers and we are mapping extraterrestrial experience onto earthly settings, such as:

Life support systems (water-waste cycles) Energy gain (from renewable sources) > storage> consumption conservation Greenhouse farming (food for urban citizens) In-situ-resource utilization (material repurposes)

Federico Garcia Lorca refers to the two elements of the big city as “geometry and anguish.” Half the world’s 7.2 billion inhabitants live in megacities (Population Clock at 13.00 GMT on 07/01/2014). Sao Paolo, Tokyo, Mexico City, Mumbai, Moscow, and Hong Kong are the big cities, the Megatropolis, with their rapidly growing populations and densely packed urban centres with equally densely packed peripheries known’s as Shanty towns, Slums, the Favela. Living conditions on Earth must change, irrespective of economic or social status, to equalize opportunity and achieve a technologically advanced world.

We propose the City and the Spaceship as paradigms to think about living together; contemporary forms of working and personal engagement, compact spaces, differentiation of public and private spaces, resource management, alternative energy harvesting, health management and inclusion of nature into our built-up environment.

CAAS inspires technological, humane innovation by positing the spaceship as an analogy of the modern densely built urban space with its complex structures and technologically-intelligent infrastructure. It is the anticipation of an ‘open city’ in the 21st century, autonomous and globally connected. All systems are configured to eco-efficiency – that means effective consideration of available resources. The CAAS City is an inspiration, another view, for a future city and a way to project and achieve our dreams and visions.