Paper ID: 58608
oral

31st IAA SYMPOSIUM ON SPACE AND SOCIETY (E5)
Space Architecture: Habitats, Habitability, and Bases (1)

Author: Dr. Julie Patarin-Jossec
Saint Petersburg State University, France

THE ROLE OF SOCIAL NORMS, SPATIAL LANGUAGE, AND AESTHETICS IN THE DEVELOPMENT OF SPACE HABITATS

Abstract

Everything, in the conception and production of working or dwelling infrastructures (including in orbit or on the Moon) is part of this heritage and the norms it is related to. Thinking about urban spaces and the way we use them according to specific activities (sleeping, eating, working, relaxing, washing, and so on) relies on social norms that individuals have internalized throughout their life in specific cultural contexts. Such rules are implicit guidelines in space programs. In reproducing those common social norms, space programs mark the continuity with known forms of housing and building, and attest the permanent seam between the organization of a society and the aesthetic production of its spatial art.

Yet, some practices and habits framing our daily life could not be easily simulated, and would even call for ruptures. The Moon's gravitational force produces some weight, but life aboard stations orbiting in the void is weightless. Out there, there is no top, right, left, or down. Everyday movements and practices need to be reconsidered. How could we possibly conceive of an environment in which the relationship to the body as we are used to it does not play a role? Dwelling space, workplaces, transportation, storage, supply: none of the known ways to structure the quotidian accurately prevail. Objects used for common tasks, such as ware or furniture, also require innovative designs to adapt to an environment where nothing goes as on Earth.

After acknowledging the heritage framing our imagination — regarding technologies, aesthetic codes, design frames, and uses of lands —, the paper discusses how fantasizing may be the only reasonable thing to move ahead and actually innovate in future space habitats. Space programs undoubtedly encourage new urban imaginaries for the future of environment management (including regarding relationships with technologies). But the past years and current evolutions of space programs tend towards reproducing what we know and what we are used to, rather than fostering drastic changes. The very notion of "space" has a mediatory function, while its "aesthetic formulation" begins to entail cognitive and sociocultural consequences. Innovation and spatial construction should then be considered according to their social, cultural and political implications, and be part of interdisciplinary dialogues with policymakers and engineers.