GAME CHANGER: EXPLORING A NEW WORLD OF PLAY

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A new architectural design game called DERA [1] is based on the integration of socio-economic factors and non-human agents, updating traditional architectural design tools [2] and fulfilling what parametric design could have been: architecture less as a finished object and more as the ordering of context and content.

As a collaborative project, DERA was developed by architects, cultivators, ecologists, economists and supporting staff of the Software Cooperation Inc. FUBE. It offers the first interactive and integrative design software, based on a real time multi-species player mode.

Therefore it can be seen as an update and continuation of alike attempts such as the cybernetic strategy game “Ecopolicy” by Frederik Vester, or the “Block by Block” initiative by UN-Habitat, which used Minecraft as a community participation tool in the design of public spaces like in Dandora, Nairobi in the 2020s. Nevertheless, the main root of DERA lies way back in the past, namely in the famous architect and thinker Richard Buckminster Fuller.

Playing this game brings us to an alternative way of managing our world and its resources. The “World Game” by Fuller was based on the notion of global maintenance, rather than competition, thus implying an understanding of a world beyond nation-states. With his “Manual for Operating Spaceship Earth”, Fuller imagined an inclusive and playful way of operating collectively while playing. Humanity, the crew of this spaceship, has to collaborate and think of it as, its only inhabitable world.

DECODING THE COMPLEXITY OF THE WORLD

There is a radical shift in the idea of one thing to be conceptualized and the holistic interconnected approach, which is at the core of DERA as an integrative planning tool.
The entire work of Buckminster Fuller and his decoding of the world consists of three steps. The first is the Dymaxion map, the planification of the world which was almost like a game, reducing the complexity of reality for the purpose of intervention. He unfolded the Earthly sphere in order to diagram and control the movement of flux, electricity, water, resources, power etc. Step two was following the concept that through cybernetics, one would be able to map the world in four, not only three, dimensions. Cybernetics would allow for the inclusion of (real)time as the fourth dimension for the distribution and management of global resources. The third concept was the synergy of cybernetics and industrialization, as a way to use technology and industry to organize the world.

The goal of Buckminster Fuller was to argue, or somehow foresee, that people who play together as a collective, rather than under the responsibility of one team leader, will be able to self-organize and operate horizontally because of the specificity of data, the consequences it shows and the feedback it creates. Always trying to be as close as possible to reality in a reduced version of reality.

FEEDBACK LOOP WITH REALITY

As the first planning tool that confronts de- signers with non-hu-

man agents and the consequences of their design for the future environment, DERA allows players to design whatever they want—in a feedback loop with reality: architecture based on real-time data, such as the availability of resources, the needs of a (local) community and the management of social consequences based on contingency.

Non-human agents and matter become active political agents, co-authoring the design project. Other than previous planning tools, the idea is not to limit the design possibilities based on economic parameters and building norms, but rather to allow for solutions validated by the integrative design software in real-time.

This is close to Fuller's idea of the public in charge of playing the World Game. Their active role is essential to Fuller's understanding of architecture. Today we understand that architecture is a public domain, aimed at managing our environments, or as Suhail Malik, who is also part of FUBE, put it: "architecture is both managing the environment but also being managed by the environment."

Therefore, the program evaluates the design—its materiality, scale and use—based on environmental and societal data. The design is imported and played, exposing itself to a virtual environment that simulates real-time conditions, feeding back both the painful and the glorious consequences. Architects and developers are given the possibility to adapt their design accordingly and to aim at the creation of a viable spatial system, rather than a finished object.

"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."

— Buckminster Fuller

"IF YOU WANT TO CREATE CHANGE, you must challenge not only the models of Unreality, but the paradigms that underwrite them."

— Stafford Beer

In DERA, designers are playing in a "multispecies overview mode" which is referring to an event in the 1970s, when for the first time humans would see the Earth from above. The "overview effect" in psychology is described as a condition among astronauts who, on their journey into space, understand the finiteness of our world as a closed system. Such an idea of a closed circularity is something we can find in Fuller's New Game. David Malaud, architect with a research focus on Buckminster Fuller, looked into the close relation between Fuller and Stewart Brand. Brand is well known as the creator of the Whole Earth Catalog. At some point in history he was conceptualizing, organizing and playing with the idea of gaming, inventing the New Game.

The idea is actually quite simple. Any kind of game was somehow based on the principle of competition. Within the rules of a game, in the end, there would be a winner and a loser. Brand was trying to shift that intrinsic model of games to a collaborative model: the New Game. One can picture it like this: A balloon of roughly one meter, representing the Earth, floats in the air. The goal is to keep it floating.

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Two teams push it in opposite directions. The moment the balloon reaches one team's sideline, one player joins the supposedly "losing" team, creating an overpower. And vice-versa. This shows that it is not about winning, losing, or finalizing something, but about keeping on playing and realising that in the closed system of the Earth there must not be an endpoint.