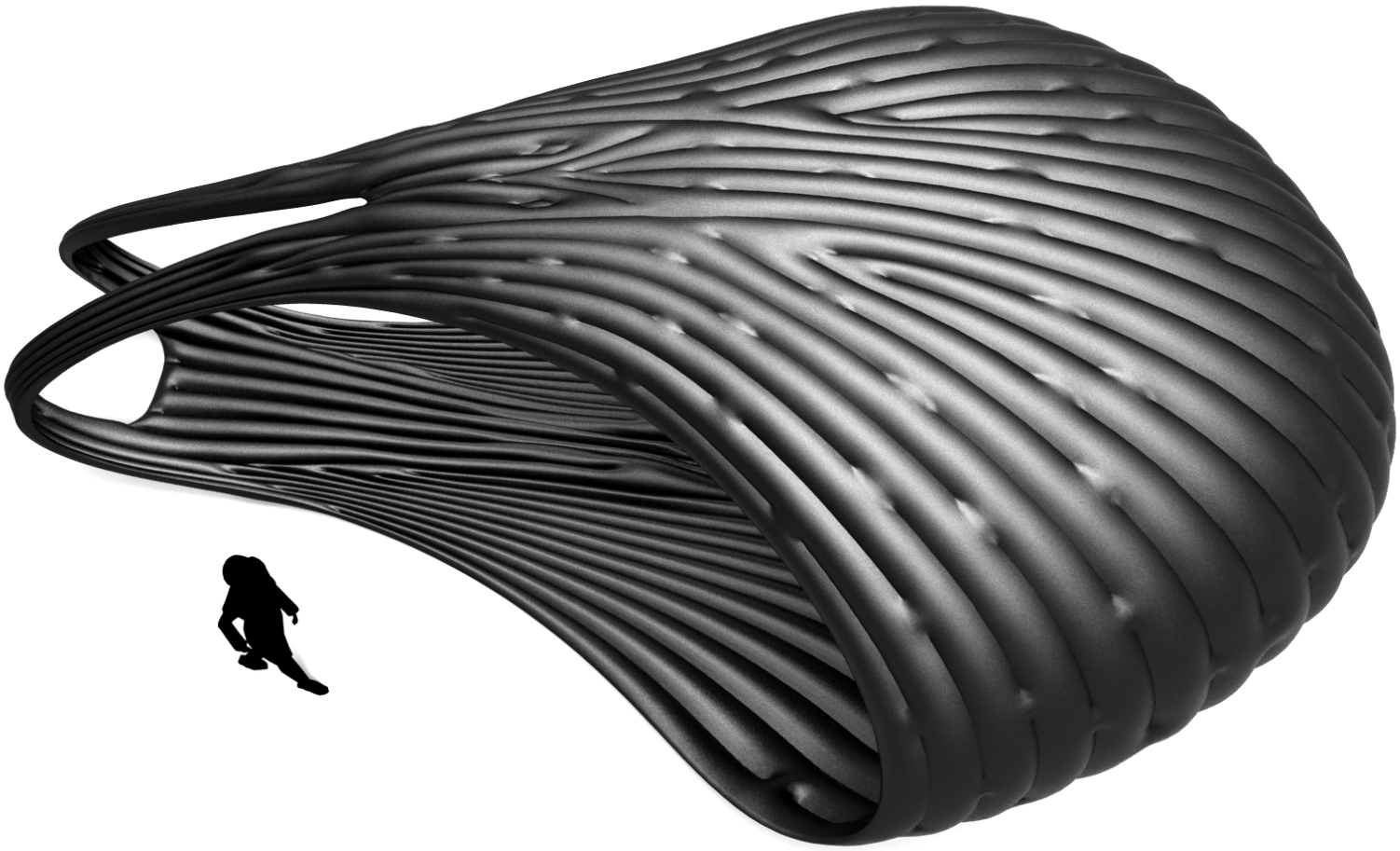

DIGITAL CONCRETE

INFLATABLE ARCHITECTURE EXHIBITION

Manuel Jiménez G., with Nagami Design and Design Computation Lab

The last stages on the evolution of Softmodelling focus on the incorporation of a new fabrication module, towards digitally controlling the assemblage of flexible discrete elements, allowing higher degrees of complexity. This has been first tested in the Trans-Computational.
The structure was first designed with Soft-Modelling, and then simulated and implemented with Elastic Space, an application developed by Seiichi Suzuki Erazo at ITKE. Two ABB robots work collaboratively, bending 900 liner meters of aluminum bars with high degree of precision. The resulted structure combines the robotically fabricated aluminum linear elements, with an active bending structure made out of glass fiver bars.
This could potentially become a dual structure in which both compression and tension forces are supported with discrete linear elements, controlling the local stiffness of both systems locally, through the different arrangements and levels of connectivity.