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TRACES OF CENTURIES & FUTURE STEPS

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ARCHITECTURE AND VISION

Warka – The Tree of Life

Water, the source of life, is not easily accessible to more than one third of the planet's population.

In the northern mountainous regions of Ethiopia access to water can cost several hours of walking, plastic tank filling and heavy canister carrying, mostly done by women or children. To ease this dramatic condition, 'Architecture and Vision' is developing the project 'Warka' which is harvesting potable water from the air and honors the disappearing Ethiopian Warka trees. 'Warka' comes from The Warka tree or Ficus Vasta, which is native to Ethiopia and is a kind of a giant wild fig tree. In pastoral Ethiopian culture the shade of the Warka Tree is used for traditional public gatherings, school education and the like. These trees are an important part of the ecosystem and culture of Ethiopia and its disappearance seems unfortunately unavoidable.

Warka Water: 'Warka' is an 8.5 m high tower constructed with a bamboo or reed framework in a basket-like shape. The hanging fabric inside allows water harvesting. The lightweight structure is designed on the computer, but can be built with local skills and materials by the village inhabitants. Ethiopia has the largest bamboo production of Africa and the majority of rural huts are either made of bamboo or reed. The tower is built in sections installed from top down, so no scaffolding is needed. The lightweight structure can be constructed, lifted and fixed to the ground without special machinery. The stable triangular framework of the tower is achieved by connecting the bamboo either with natural fibre, plastic or metal wires. The fog-harvesting fabric can be lowered for maintenance, but also to indicate the availability of water from far.

Warka Energy: In a second step the tower can be equipped with solar-powered LED lights to provide illumination at night, giving the chance to children to study after sunset and also supporting the social space in the village in the evening. In further developments muscle powered energy can be produced by people activities while gathering under the tree.

Warka People: 'Warka' creates a sun-shaded and at night illuminated social space and is giving the resource water and energy production into the peoples hands. 'Warka' can be the semination point for a leap-frog development to bring the rural Ethiopian village community into the space age. The tower can be used as an enhanced and shared internet connection point for rural communities to bring them such valuable real-time information as weather forecast, actual market prices of fruit and vegetables, but also create a higher awareness of the 'Genius-Loci of the Space-Age' to continue to live in harmony with the local resources nature is providing. Only an empowered future village can balance the trend to megacities. The project 'Warka – Tree of Life' shown in Palazzo Bembo during the Architecture Biennale 2012 in Venice, is the prototype 03, which serves to explore construction methods. The material used is giunco for the structure, iron wire for the connections and polyethylene textile for the fog harvesting. The prototype number 01 was prepared with the students of the architecture faculty at the University of Addis Ababa EiABC, Ethiopia, in May 2012 and the prototype 02 has been built in Venice with the support of students of the IUAV.

Architecture and Vision is inviting universities, institutions, NGO's and private donators to help the further development of this project.

