

POLITECNICO DI TORINO  
SECOND SCHOOL OF ARCHITECTURE  
Master of Science in Architecture  
*Honors theses*

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**DIOGENE: nomadic multifunction microarchitecture self-buildable**

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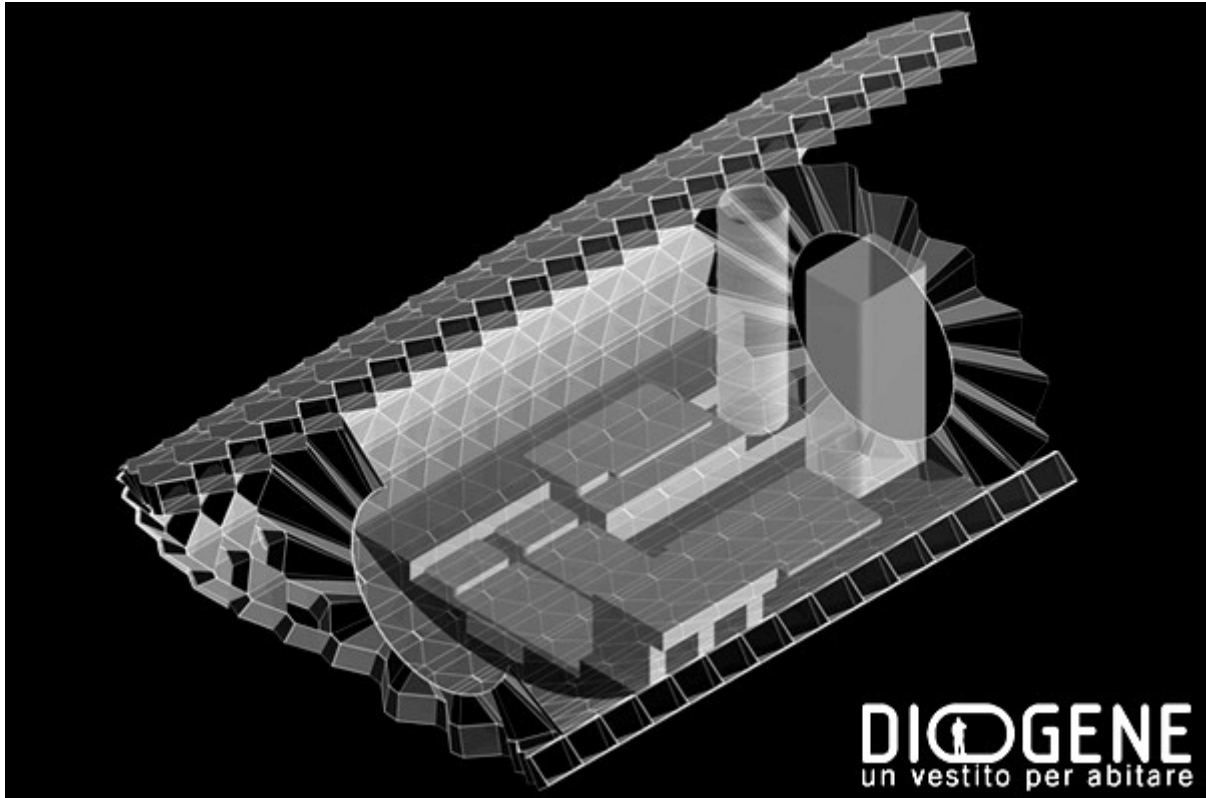
Designing one small nomadic multifunction structure, allows us to “make architecture” with some of the universal paradigms through which men have crossed the time and space. Our job was taken care of environmental cultures such as architectural, constructive and material, departing from those historically sedimentated until those experimental. In addition, taking of ecological conscience and tight with the natural environment, to search of alternative formulas for development. Respect-recall towards the nature, pushes to choose human habitats in harmony with the landscape, to be able to invent new ways to build and to move. The today’s nomadic way, beyond being more and more reality due to the continuous flows of physical and computer science relations that set the daily living, it is also a mental condition, synonymous of curiosity and search, speed and dynamism.

The project was born as a challenge to the topic of the traditional temporary living, between observation and poetical intuition, reflection and action. The composition process begins placing the attention on the meaning of living and the archetype of house. It has carried, through a process of abstraction to the creation of fantasy and imaginary houses. From these matrixes the foundations of Diogene have been enucleated: reducing the technology to its essence of use value, replaced to the value of today dominant exchange, search and recovery of the real requirements of the individual, self construction and low cost. After a deepened examination, analysis and decodes of projects of past and today’s transportable architectures, We proceeded to the planning of the habitable shelter named "Diogene".



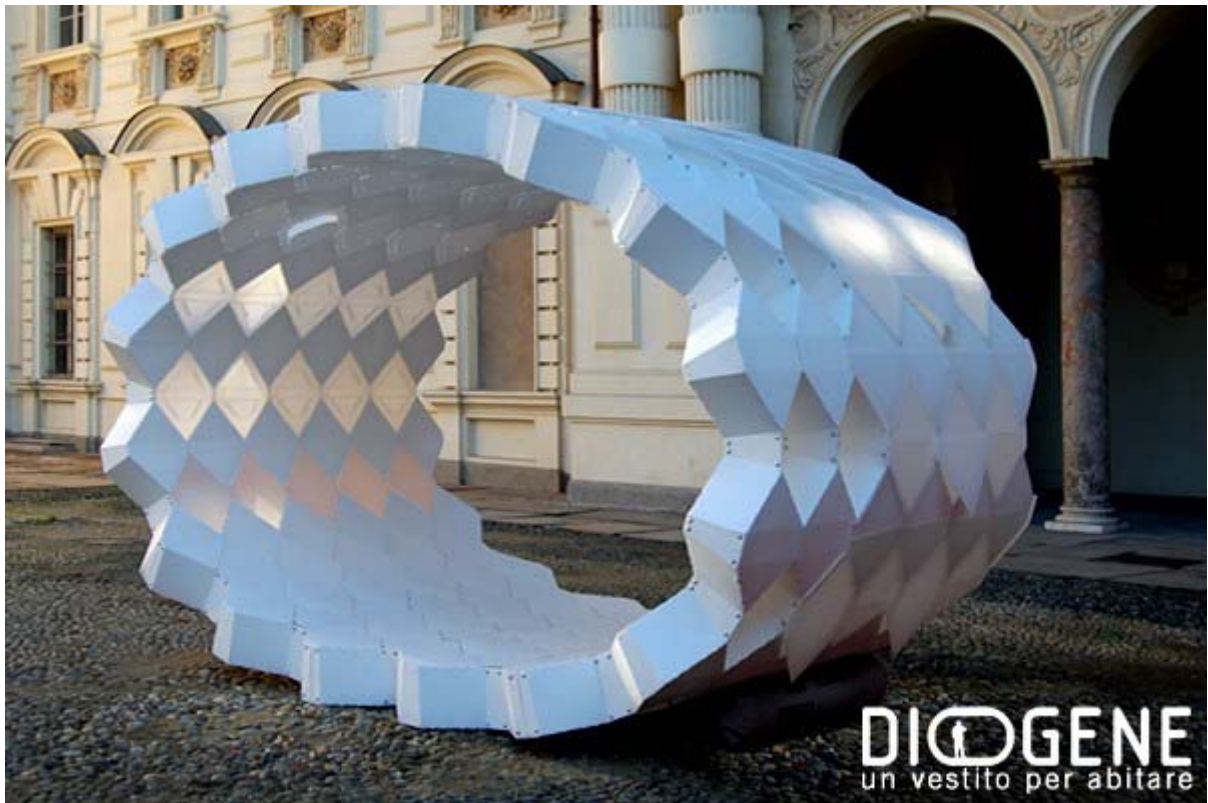
Diogene is an easy constructible item thanks to its simple structural system. It introduces itself mounted like a "telescope" of oval section, laid on the ground; Folding tapes have been used and joined together to create hexagonal cells. Stoppers are elements that hold in shape the cells; They have been conceived to be operable halves that could be open, obtaining a satisfactory final effect from the static point of view, as well as the aesthetic one; this way we obtain evocative and sculptural games of light-shadow, full-empty. The water proofing of the covering is guaranteed by a covering of overlapping flakes. The implantation systems are simple, economic and of fast assembling: plastic fastenings for the tape connections, joint systems for stoppers and folding tapes and Velcro strips to secure the flakes.

Diogene can be dry mounted, using standard tools following a principle of simple assembly, considering that all the elements of this system are fundamental, we have reduced to the minimum the number of the parts and scaled them for easy transportation.



In order to verify all these aspects, we have realized one portion of the structure at full scale; It has been possible thanks to the sponsorship and know-how of LiPuma Design, that allowed us to relate with industrial productive systems. Five hollow punch of 1.6m x 1m have been realized and by using a hollow puncher machine, all 486 pieces have been cut in order to realize Diogene prototype. The final sizes are as follow: 2.15mL x 3.50mW x 2.40mH.

All the manufactured members have been transported by car to the court of Valentino's Castle in Turin where the assembly took 3 days with the help of 3 people.



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