Learning Man: environmental impact summary.

"The cleanest energy is the one you don’t need."

As the domes are mainly built with soil (around 90% of the total weight to its insulation by earth and hay, its energy need is way lower than other future experimentation at Fly Ranch. Transport, providing heat and electricity to the Modular Earth Domes and heat of the ground. This exergy will be used on-site to avoid loss during sources of Puha are intended to generate useful energy (exergy) from the natural world we are entirely a part of. We need to reduce the philosophical gap we exist between nature and culture. This change of paradigm implies that we need to tend towards joyful frugality: enough is more! We need to detoxify our lives from the overconsumption of energy and resources and focus more on our immediate relationships with others and our surroundings. However, we are a technological species and we need to use this asset, but in sympathetic ways, in symbiosis with nature, not against it (and us, not against ourselves).

In our proposal for the LAAGIS at Fly Ranch, we try to develop a multiple loop-ecosystem of resources and energies. These loops are intimately linked to the environment and work together as hybrid biological/artificial systems.

Local energies, renewable & saved.
Sources of Puha are designed to generate useful energy (vapor) from the heat of the ground. This energy will be used either for hot water during transport, providing heat and electricity to the Modular Earth Domes or for future experimental facilities (Fly Ranch). To achieve this energy, the superadobe, we suggest reusing misprinted grain bags from the agricultural industry to lower the impact.

Local material use and carbon storage.
As the domes are finally built with soil (around 70% of the total weight of the building), most of the materials don’t need to be transported or otherwise. The 20% consists of wood obtained from various local sources and the 10% consists of wood and hay that store carbon. In the long run, this material in an efficient geometry contributes to lower this carbon cost of the building, most of the materials don’t need to be transported or otherwise. The 10% consists of wood and hay that store carbon. The use of wood can be seen as cost in the carbon footprint since wood is not produced locally. The carbon cost can be balanced by the carbon storage of the wood as long as it doesn’t decompose or burn. The use of this material in an efficient geometry contributes to lower this carbon cost on the project, we regard this as efficient, and sustainable. The end products of this material in an efficient geometry is the source of Puha’s own negligible carbon cost. It is used to produce hot water and electricity which highly reduces the need for coal of other harmful substances in the environment. So the cost can be seen as an investment that can easily be balanced by the regeneration of local wetlands and vegetation in the long run.

After all, we think the main carbon cost of our project in Fly Ranch would be caused by the transportation of people gathering on-site for building, maintaining and enjoying the project. Since the project in Fly Ranch is an experimental scalable demonstration of a possible sustainable future, this cost can be seen as a good investment in the future of mankind!