DANDELION SHELTER

UNIT, AXONOMETRIC VIEW, SCALE 1:20

Relief efforts after disasters constantly wrestle with the question of how to deliver aid while not disrupting local society and economy. Shelter and food distribution calls for centers where affected can seek help and gather in large numbers. In the process the basic unit becomes the functional unit, as do the tools needed to construct the aid economy. The Dandelion Shelter is an effort to create a direct and locally distributed response that provides a very basic shelter, but combined with tools for a new start. The shelter mimics the dandelion—the bigger part is a parachute while the small seed at the base contains what is necessary for new growth.

The parachute takes on the role of a basic shelter as soon as it reaches the ground a roof with mosquito netting walls and a foldable steel structure. Its seed contains, apart from blankets and other necessities, tools for creating the reality beyond the relief effort. The roof can be used for water harvesting or, in a larger assembly, for holding a library. By deploying a lightweight and expandable shelter, the dandelion, or in this case the dandelion, is a parachute and shelter all in one. With its parachute sections made out of local materials and methods, possessions buried under mud or buildings can gradually be reclaimed and used for new uses and meanings in the open-ended structure.

The basic unit has a roof of 12 m² and is enough for three persons by the standards of the sphere project (3.5 m² required per person). Units can be combined to culturally appropriate forms with possibilities of larger spans and higher ceiling with three or more rows. Seven units in a star-shape has an 84 m² roof and a central space with eight meter diameter uninterrupted by pillars.

The shelter addresses sustainability questions primarily through support to existing communities. The local element in initiative and material becomes more important and societal bonds can remerge when people don’t have to move to receive aid. Also, by sending only the necessary and the tools for constructing what else is needed, dandelion shelter can be lighter and more lightweight. Its water harvesting tool means clear water as soon as it rains and the fact that everything in the shipment is both package and item means that waste is kept at a minimum.

THROUGH THE AIR -
The Dandelion shelter is its own parachute and can be sent to the most remote places within hours of a disaster.

WATER HARVESTING -
Rain and dew is led from the roofs through the columns and into the buckets the shelter stands in.

UNIT, SCALE 1:100

WATER SEED - Plastic container with blankets, water filter, mosquito nets, axe and knife. Used for water harvesting or collection elsewhere.

FIRE SEED - Metal container with blankets, matches, mosquito nets, axe and kitchen utensils. Used as pot and smoke collector/id.

FOOD SEED - Plastic container with blankets, foodstats, mosquito nets, axe and kitchen utensils. Used for feeding family.

ROOF - WHITE CANVAS

STRUCTURE - STEEL U-BEAMS 25-50 MM DEEP

COLUMN - 168 MM HOLLOW STEEL PIPE

SEED - PLASTIC OR METAL CONTAINER

JOLT - By connecting the folded end of each arm to another unit, they can be assembled to a larger system.

ESTABLISHED SHELTER - When in place, the shelter can be added to and changed. The protection and tools make a path towards normal life possible.

FIRE SEED - Metal container with blankets, matches, mosquito nets, axe and kitchen utensils. Used as pot and smoke collector/id.

WATER HARVESTING - Rain and dew is led from the roofs through the columns and into the buckets the shelter stands in.

PLAN, SCALE 1:100

Joint - By connecting the folded end of each arm to another unit, they can be assembled to a larger system.