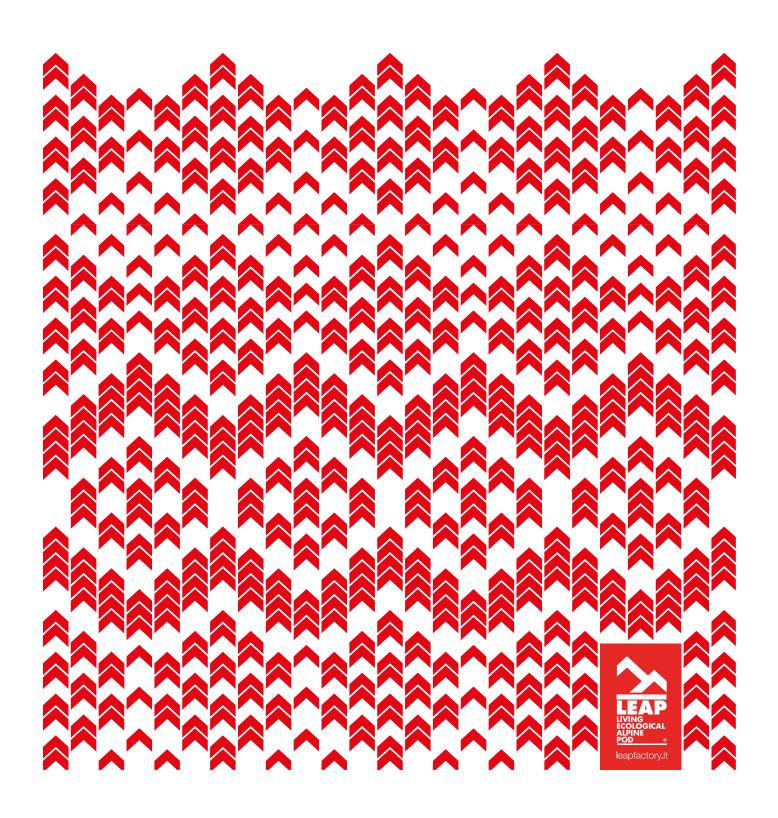
LeapHut

living nature on tip toe







"the aim is to produce a model of absolute value, effective and flexible, for the construction of new alpine bivouacs"



Mission

The activity of LEAPfactory is based on the continuous research for design solutions that can solve the problem of infrastructure in the natural environment. Our aim is to think of the relation between man, nature and artefact in a new way. Our test environment is the alpine landscape. A new approach to the territory that aims to redefine the culture of dwelling, of workplace and of life. A symbiosis between environmental and energetic sustainability becomes for us a key design issue.

We think it possible to regenerate the common vision of inhabited places with new solutions that respect the identity and

the environmental and historic assets of the natural landscape. These solutions will lead to future changes by preserving, and even enriching, the great diversity and quality of the landscape that we have inherited from the past. All LEAPfactory products are entirely prefabricated and conceived for "zero impact dwelling" especially in sensitive natural areas that need to be protected, in remote locations with no road access or where traditional permanent foundations should be avoided. The complete reversibility of LEAPfactory products highly reduces their environmental footprint, permitting to live in full respect of nature.





An innovative system

The LeapHut project has been achieved after many years of reflection on the subjects of living accommodation and a strong passion for mountains and mountaineering.

The aim is to produce a model of absolute value, effective and flexible, suitable for the construction of new alpine bivouacs.

The project we propose solves the typical problems of this kind of installation:

- it is entirely built off-site, ideal for transport by helicopter and easily installed on location with a limited number of operations;
- it is conceived in modular single-function elements that can be assembled to permit flexible functional programs;
- it is built to resist to the harsh conditions of high altitudes over time;
- the composite shell-structure guarantees

high levels of thermal insulation;

- the interior fittings of the functional units are devised for optimal comfort with special attention to the un-alterability of materials, to hygiene and to safety;
- the integrated technological apparatus solves the issue of energy autonomy providing power to all installed equipment and permitting the complete management of the sewage produced;
- regular maintenance is very limited and in the case of serious damage the single modules can be removed and transported off-site for repairs.

The aesthetic features of the shelter do not try to imitate any existing model: the hightech

elements of the structure highlight its unrelated look in the surrounding environment.

Living

the best foothold to live with respect the natural environment that we love most

Ecological

industrially prefabricated, fully self-sufficient, it does not modify permanently the hosting place

Alpine

designed to withstand the extreme conditions of high altitudes

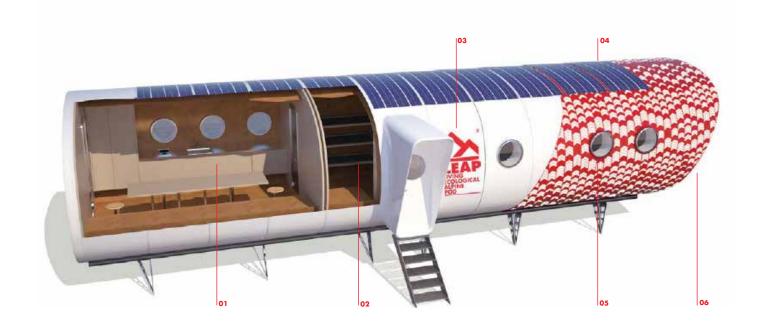
Pod

a modular sophisticated shelter; comfortable and energy-efficient





LeapHut A NEW GENERATION OF ALPINE BIVOUACS





living/dining unit with pantry and cooker (electric induction hob)



the photovoltaic film incorporated in the outer shell provides the energy necessary to run all the equipment



entrance unit with thermally insulated inner door, storage/drying rack and rescue



the living unit in the panoramic version opens onto the surrounding



sleeping unit with adjustable bunks for maximum comfort, according to the number of users



transparent-end; the surface is made of antiscratch acrylic sheets of the latest generation



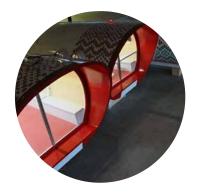


An innovative strategy with a low environmental impact

LeapHut introduces an innovative strategy for the construction of alpine huts. This type of installation represents an interesting form of support to trekking and mountaineering activities with a much lower environmental impact than the traditional mountain shelters.

LeapHut solves all the problems of existing

types of mountain dwelling. It is entirely built off-site, suitable for transport by helicopter and easy to install at high altitude requiring a limited number of operations. It is made with elaborate technology for durability and designed to withstand all kinds of stress. It offers comfort beyond any present standard.



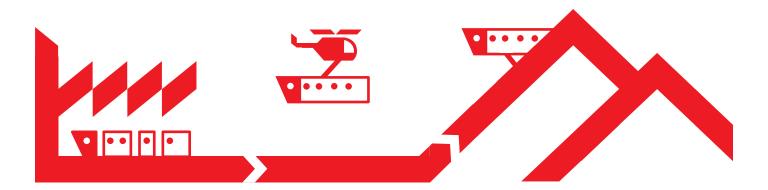
Step 1
The functional units leave the factory complete with full interior fittings and accessories.



Step 2 The final transport of each unit is made by ordinary grade helicopters (B3).



Step 3
The final assembly requires simple and quick operations to inter-connect modules and secure them onto a metal base.







A versatile system

The modular construction makes it possible to set up different sizes of dwelling according to different requirements. Each module is identified by a specific function. It is possible to organise the best layout for each location in terms of sleeping accommodation, living room space, number of entrances.

Different accessories allow the choice of

the outside view, including impressive scenic solutions.

This kind of layout also gives the opportunity to change the layout of the bivouac over time: increasing the size or swapping around the functional units. In the case of serious damage it is very simple to remove modules to be taken offsite for repairs or replacement.





A cozy atmosphere with sophisticated design

The interior fitting of the functional units is carefully thought-out to provide optimal quality. Although small, the interior space is furnished for a pleasing and rewarding stay under all aspects. The selected materials guarantee durability, hygiene and safety while providing a warm and welcoming interior of refined design.

The proposed solutions are fully

customisable both for the functional layout and the finish of the materials used. LeapHut can be equipped with technological systems for the production of energy and a unit to measure local conditions.

The sanitary module is equipped with a biological toilet that disposes of all sewage without polluting the environment.





A temporary guest of nature

The basic concept of LeapHut is a strong consideration for environmental impact. The aesthetic features of LeapHut don't try to mimic or resemble any traditional alpine structure. On the contrary, the intention is to effectively declare its unrelated look in the surroundings through the expression of its high-tech features.

The ecology of LeapHut lies in its transitional nature and total reversibility. At the end of its "life cycle" the pod can be lifted away by helicopter without leaving any permanent trace of its presence in the natural environment. The industrial off-site construction makes use of ecologically certified materials and processes.







A specific function for each module

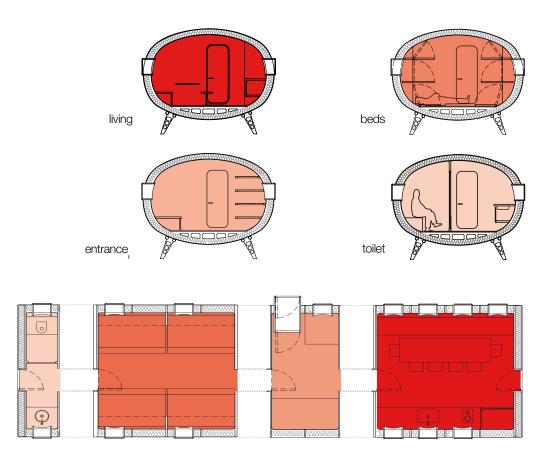
Entrance module: it provides access to the living quarters while preserving the inside heat. It includes a storage space for rucksacks, boots and mountain equipment (with optional drying-rack) and a compartment for emergency equipment.

Living module: fitted out with dining area, kitchen and pantry. This module also houses the control units for the technological apparatus.

Sleeping module: it is based on a flexible layout in order to adequately accommodate a variable number of guests. The bunks are built without "soft" parts, with resistant, unalterable,

antibacterial materials; this solution has been thoroughly tested in specific applications such as in the last generation of racing yachts. Such materials favour the easy maintenance and the durability of the bunks.

Sanitary Module: composed of a lavatory and a wash room with basin. This module, located at the extremity of the pod, also provides access to the emergency exits while preserving the heat in the main modules. The lavatory is equipped with a biological system that disposes of all sewage through a passive filter without the need for any further disposal or purification.





A configuration for every need

The hut is made of independent interconnected "parts". Each zone serves a precise function. Different modules can be assembled together to achieve the desired result in terms of capacity and facilities, with the most fitting layout for the specific location.

It can be supplied starting from the minimum unit that sleeps 4/6 people to larger complex layouts with multiple independent units.

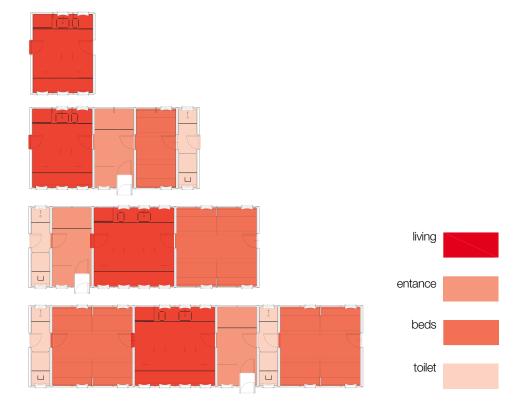
The size of the hut can be changed in time, without altering the functionality

of the existing modules. If needed single modules can be removed and transported off-site for repairs and maintenance. The weight of each module allows it to

The weight of each module allows it to be hoisted and transported by ordinary helicopter (B3).

The modules are built and assembled entirely in the workshop: when they reach their location they are perfectly functional immediately and do not require any on-site machining.

Below we present some configuration examples:

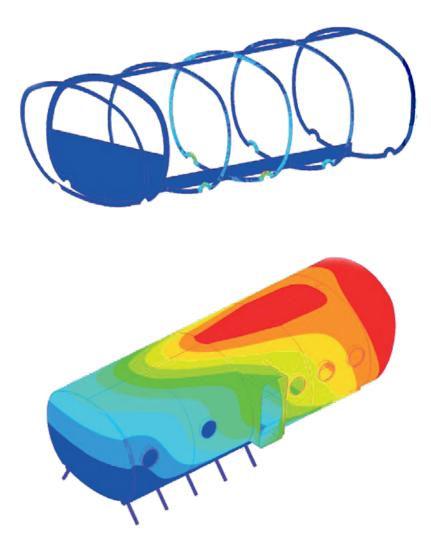




Duration over time and limited maintenance

The particular form, the construction of the structural shell and the materials employed are all devised for strong resistance to the demanding weather conditions and hazardous events typical of the alpine environment.

The aim of the design is to achieve reliable duration in time and the best conditions of preservation. In the case of exceptional damage the modular solution allows the only parts that need substantial repairs to be removed.







Comfort, safety and durability

The furniture in each module is made to guarantee resistance, durability and easy cleaning. Mostly composed of fixed elements connected to the shell without dangerous edges, or corners where dirt can build up. The elements efficiently serve all the basic functions of a dwelling. The birch wood finish gives the interiors a welcoming atmosphere that recalls the traditional alpine hut. There are no "stuffed" parts, so as to avoid hygienic problems;

the upholstery is made of high-resistance fibre which is unalterable, fireproof, waterproof and antibacterial.

The interior layout and the location of entrances allows for two-way escape routes in case of danger. Alternatively the different access doors can be used to make the main functional units independent from one another.

An overall fine balance between comfort, safety and durability has been achieved.





An advanced and user-friendly equipment

LeapHut is provided with advanced technological equipment which is easy to use with simple controls. The electric energy requirement is supplied by the photovoltaic cells integrated in the outer shell and if necessary by a wind powered micro-generator. Different equipment

is available to satisfy all primary needs: lighting, cooking, air conditioning and emergency calls.

A dedicated self-diagnosis and ambient data recording system is also available to serve as an on-line log book for the shelter.





An optimal micro-climate

The outer shell of the bivouac is designed to guarantee high insulation levels which come in aid of the interior micro-climate. Natural or mechanized ventilation systems enable the control of air change and the recovery of the internal heat in relation to

the external conditions and the number of guests.

This guarantees the best quality of the internal micro-climate without opening the portholes, thus avoiding direct contact with the possible hostile weather conditions.







The LEAPfactory team is capable of following the entire production process of any desired dwelling, from the best site localisation to the opening ceremony: surveys and geological investigations; authorisation and testing paperwork; counselling for required funding; installation and maintenance operations management; opening event communication and advertising.

Do not hesitate to contact us. Together we will find the winning solutions to fulfil your best ideas!





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