More Mobile
Portable Architecture for Today
Tree Tents

Tree Tents were originally designed for the Road Alert Group, a group of activists who fight against the excessive construction of highways through forests in Britain. During their protests, the Road Alert Group members cover themselves and hide (and occasionally live) in the trees so as to fight as long as possible against the incoming timber crews and their chain saws. Tree Tents were designed to provide a comfortable place for the activists to stay during their habitation of the forest, a stay that might prevent further forest destruction. The demonstrators nestle close to the treetop, swaying in the wind, out of reach of the arm of the law.

The form of the Tree Tents was derived from the simple physics of nature. Wepenaar envisioned a hanging pod that allowed its inhabitant to live within the tree—like a human birdhouse. When he hung a series of circular, sheathed platforms, tied by a rope to the side of a tree, as a conceptual test, the taut top and the bowed-out bottom of the dewdrop form came to be the driving geometry for the dangling pods.

As Wepenaar was designing the tents, a representative of the Road Alert Group convinced the designer to sell them his project drawings. The group finished the development of the tents, which were hugely successful for the group, both in terms of utility and as a formal identifier for the activists.
Andrea Zittel

Since the early 1990s, Andrea Zittel has used the arena of her day-to-day life to develop and test prototypes for living structures and situations. Using herself as a guinea pig, she often uses her own experiences to try to construct an understanding of the world at large. The experiments have at times been extreme—such as wearing a uniform for months on end, exploring limitations of living space, and living without measured time. However, one of the most important goals of this work is illuminating how we attribute significance to chosen structures or ways of life and how arbitrary any choice of structure can be. Without denying the personal significance of these decisions, Zittel’s work tries to combine values such as “freedom,” “security,” “authorship,” and “expertise,” with an interest in how qualities, which we feel are totally concrete and rational, are often subjective, arbitrary, or inverted.

Zittel was born in 1965 in Escondido, California. She received a BFA in painting and sculpture from San Diego State University (1988) and an MFA in sculpture from the Rhode Island School of Design (1990). In the early 1990s she established her practice in New York, one of her most visible projects there was A-Z East, a small row house in Brooklyn, which she turned into a showroom for her prototypes for living. Her work has also been included in group exhibitions at the Venice Biennale, Documenta X, Skulptur Projekte Münster, and in both the 1995 and 2004 Whitney Biennials. In 2008 she moved back to the West Coast, eventually settling in the High Desert region next to Joshua Tree National Park. She divides her time between A-Z West, located in Joshua Tree, California, and Los Angeles, where she teaches at the University of Southern California. She is a co-organizer of the High Desert Test Sites and is currently organizing two new projects: the A-Z Smokeshop in Los Angeles and an as-yet-unnamed campground in the High Desert.
A-Z Wagon Station

The original pioneering spirit of the "frontier" considered autonomy and self-sufficiency prerequisites of personal freedom. At A-Z West, Zittel continues to investigate how such perceptions of freedom have been re-adapted for contemporary living. She believes that, in this culture, personal liberation is more often achieved by individuals who manage to "slip between the cracks" instead of building big ranches and permanent homesteads. Today's independence seekers prefer small portable structures that evade the regulatory control of bureaucratic restrictions, such as building and safety codes. The A-Z Wagon Station reflects the qualities that create independence for the owner and user: compactness, adaptability, and transportability.

Two different associations connected to wagons inspired the design and concept of the A-Z Wagon Station. Similar to a covered wagon, the A-Z Wagon Station is intended to house possessions and provide a membrane against the elements. But the scale of the Wagon Station is actually derived from the dimensions of a standard-size station wagon, which provides the minimum space needed to create privacy and comfort for the occupant. Although the unit doesn't have wheels, the entire body of the wagon breaks down into five sections and can be transported to almost any location and reassembled by two people in only an hour or two.

Since their conception five years ago, sixteen of the eighteen original Wagon Stations have been customized. Most of these units are now situated in the desert backdrop of A-Z West, where they function as sleeping stations and simple camping shelters for Zittel's community of friends and collaborators.
DesertSeal

DesertSeal is an inflatable tent for extreme environments that makes use of the temperature curve in hot, arid regions, where the air gets considerably cooler the more distant it is from the Earth's surface. This effect is used by many desert animals, not least by the camel. An electric fan, powered by a flexible solar panel and batteries, constantly blows cooler air from the top of the tent into the body of the livable space within. The tent consists of an air-bag structure made of yellow polyurethane-coated polyethylene fiber, and its awning is a silver-coated high-strength textile that reflects heat and protects from direct sunshine. The beauty of this configuration derives from its functionality and efficiency, particularly in dealing with such natural energies as sun and wind. A newly developed solar film will be tested for additional energy gain to power the electric fans. The aero-space-architecture background of the designers is visible in the conception, construction, and materialization of the project, which is derived from natural resources and has minimal weight for transportability.

The DesertSeal project was sponsored by the European Space Agency and involved collaboration with numerous international groups, including the European Astronaut Corps, in Cologne, Germany; Aero Sèkur s.p.A., in Apulia, Italy; and VHF Technologies SA in Yverdon-les-Bains, Switzerland.
The Carbon Neutral Micro-Compact Home

The Carbon Neutral Micro-Compact Home (M-CH) is a carbon-neutral home designed for a Swiss client in the Alps that uses a myriad of off-the-grid energy-producing technologies to power the entire structure. At an exceedingly high elevation, facing south with a clear horizon, Micro-Compact Home Ltd. has worked with Ove Arup and Partners and Ernst-Basel Ag Engineers in Zurich to develop the project in detail. This version of the M-CH runs all electric (as opposed to natural gas or coal for heating, cooling, and cooking) and is powered by photovoltaic solar panels with a vertical wind generator. Daytime excess power is diverted into the larger community grid, and nighttime power is provided by the wind turbine and reserve batteries. Heating and air-conditioning is ducted to each of the four function spaces—eating, sleeping, washing, and working. Long-duration LEDs light the interior and external walkways. The carbon-free home also contains a few green-energy perks like the lockable ski and snowboard storage accessed from the outside and included in the insulation zone, so skis and boots are warm in the morning.
Micro-Compact Village

This village features seven micro-compact dwellings, each transportable and lightweight, combining high technology and low energy use, much like the Smart Car.

Specially selected students of the Technical University of Munich were chosen to live in six of the cubes for the 2005–6 winter semester alongside their British professor, architect Richard Horden, who masterminded the design of the Micro-Compact Home.

The concept was developed over four years by Richard Horden and Horden Cherry Lee Architects with the German practice Lydia Haack + John Henning Architects. Lydia Haack teaches alongside Horden in the university’s Institute of Architecture and Product Design, and their students worked on the M-CH project, as did students at the Tokyo Institute of Technology, where Professor Horden also taught.

The layout is influenced by traditional Japanese teahouse architecture. Internally the space is divided into zones. A compact zone of wet services houses the toilet, shower, and the kitchen. On the central axis are the entrance and kitchen-circulation area, which also serve as access to seating in the lower dining area. The upper-level sleeping bunk (for two) can be folded out of the way, while below, the sunken dining area can also double as a second sleeping space (also for two).

Lightweight technology is used throughout, including insulated vacuum aluminum-paneling mounted on a timber-and-galvanized-aluminum section that provides the basic structure. Several units can be mounted on an external aluminum frame in vertical and horizontal formations, around central lift and stair cores to form a "village."

The Micro-Compact Home is ideal for business travelers, holiday homes, or other short-term residential or academic uses. It requires no furniture and comes with all integrated energy and communications systems. Raised off the ground, it has a minimal impact on its environment.
In 1994 a noncommercial exhibition space and lab was initiated in Nørre Færgeplads 55, Copenhagen. N55 grew out of this collaboration. In 1996 a number of persons started living together in an apartment located in the center of Copenhagen, trying to "rebuild the city from within" and using their everyday life as a platform for public events and collaborations. In the year 2000, Floating Platform and N55 Spaceframe were constructed in the harbor area. N55 Spaceframe served as a starting point for local initiatives and interventions, a work and living space for the group until 2004. It now serves only as a living space.

N55 is a platform for persons who want to work together, share places to live, economy, and means of production. N55 is based both in Copenhagen and in LAND. This design collective publishes its own manuals for the reproduction of its designs in the spirit of open-source software sharing. As a result, N55 designs are implemented in various situations around the world, whether initiated by N55 or in collaboration with different persons and institutions.
Micro Dwellings

Micro Dwellings is a system for making low-cost dwellings of variable sizes for any number of persons consisting of moveable housing modules that can form different configurations on land, on water, and under water. The system allows for a diversity of materials, as well as changes and adaptations to the design over time.

Micro Dwellings are modular, which allows them to be stacked up, rearranged, or gathered together with other systems into small communities. The Micro Dwellings can be built onto rooftops of existing buildings or suspended from a bridge or a wall. The modules can be mounted on wheels for mobilizing or connected to form floating constructions. Micro Dwellings can also be made into water tight, amphibian houses that can be completely submerged or partly elevated near or at the water's surface.

Most functions are built into the dwellings' walls, and furniture, along with household equipment, is provided by moveable elements that change functions during the day. Supply modules can be mounted on the outside of the main modules.

Micro Dwellings are able to adapt to changes in life, e.g., residents moving in and out, the arrival of children, and an expanding need for space. Conversely, certain modules of the dwelling can be taken away if living spaces need to contract. People who want to live together can simply let their dwellings grow together. Likewise, it is easy to separate modules and move them if that is desired. Micro Dwellings do not in themselves define a social constellation, but they provide the basic equipment people need to configure their own social setting. The present version of the system is made of cheap steel plates and can be constructed by anybody who knows how to weld.
Small Truck

Small Truck is a lightweight, low-cost, man-powered vehicle that enables people to move loads up to about 650 pounds at slow speeds. Transporting things using a Small Truck, the driver gets physical exercise while working, combining these activities saves time for other things. Small Truck provides shelter from wind and rain and can be equipped with various systems: platforms and trailers that can support micro-economical initiatives, like a transport company, a small shop, restaurant, cinema, or office. It could also be equipped to offer an unfoldable concert stage with scenery, public library, or a mobile home.

N55 has placed directions for construction of the Small Truck on its website and hopes that individuals will build their own. N55 likes the idea of many different designs of the vehicle, so that the Small Truck might be available to others.

The chassis of Small Truck was realized through a collaboration between Palle Brage and N55. This means Small Trucks will appear in various materials and shapes, depending on the context in which they are meant to function.
Snail Shell System

The Snail Shell System is a low-cost system that enables mobility for people in various environments, since it is operable both on land and water. One unit supplies space for one person, and one person can move the unit slowly either by pushing it like a wheel or walking inside it or on top of it.

On water it can be rowed, towed by a kite, or hooked up to a vessel, such as a ferry. The unit rests on one flat side and can be anchored in lakes, rivers, harbors, or at sea. On land it can be placed in city spaces, fields, forests, or parks. The Snail Shell System takes up very little space and can easily be placed into a setting in a discreet way. It can be buried in the ground, exposing only the entrance. It can also function as a comfortable space inside existing buildings.

Several units can be joined to form temporary communities where the unit can be hooked up to existing infrastructure like telecommunication lines and electricity cables by connecting it, for example, to street lamps. If special solar, wind-turbine, or thermal insulation devices are added, the unit can supply its own energy. The Snail Shell System can also be used as a means of storage or as a moving unit for shipping small loads. In light of its subversive and collective tendencies, N55 would also like to point out that the Snail Shell System can provide protection for persons when they participate in demonstrations or protests.
School Wheel

The bed of the Oncheoncheon Stream in Busan City, South Korea, has been paved over in concrete, creating a relaxation and recreation space for the residents of the surrounding area. Water still runs through a central channel in the concrete riverbed, and when the river swells, the water level rises and once again swallows the open space. Depending on the amount of water in the river, the area appears and disappears, creating a public space that is governed by the characteristics of variability and even redundancy. This rising and falling action was exploited for the purpose of an exhibition as part of the Busan Biennale in 2006, and an installation was created that allows one to enjoy the experience of such an ephemeral public space. One big blackboard, four-eight chairs, an awning, and lights make up the School Wheel, a temporary classroom situated under the blue sky. The whole front surface of this portable structure was painted as a blackboard and could be used as a satellite classroom for any nearby educational institutions. Here anyone could become a teacher and anyone could become a pupil.

Following the installation period in Busan, the School Wheel moved to the Museum of Twenty-first Century Art, in Kanazawa, Japan, to become part of Atelier Bow-Wow's exhibition Lively Projects in Kanazawa, for which the architects invited people with knowledge or experience of Kanazawa to give lectures in the School Wheel.