

Revamp the Camp

Department of Architecture, California State Polytechnic University, Pomona
Spring 2014, Units: 6.0: Lecture / Location: MWF 9-12am, and 2-3pm, IDC
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Course Description

This studio will explore innovative designs for a re-interpretation of the "Californian" lodging experience. At the core of the design challenge is the need to balance issues of culture, sustainability, mobility, and construction. Successful proposals will address inventive, low-cost, eco-friendly alternatives to traditional lodging structures for use and deployment across existing under-utilized campsites within the CA State Parks system. The goal is to create a unique experience that appeals to a wider range of park users, generates funds that are reinvested in participating parks, and creates more awareness of positive changes taking place in the parks. Working from the framework of success in similar design studios, students will be working closely with real stakeholders, site, and program.

Specifically, the desired outcome of this studio is to produce a design of a pre-assembled cabin to be deployed in the State Park system. The base design should be easy to maintain, sustainable, with the bare necessities of door, windows/light source, and an overhang/porch, sleeping platforms and likely some sort of durable sleep pad/mattress (but no stove, lighting or electricity). Variations of the base design will also be explored, including ADA accessible and larger prototypes.

Course Objectives and Learning Outcomes

- *Design of a real project and site*
- *Design for ease of prefabrication and mass production*
- *Design to withstand natural forces*
- *Design for thermal comfort and sustainability*
- *Design for ease of maintenance and public health*
- *Design for affordability*
- *Build a mock-up*
- *Learn to use 3D software and BIM*

Design Challenge

In the first phase of the studio (Weeks 1-2), students will

- Go camping!
- Research existing similar lodging solutions
- Research manufacturing companies capable of producing the design in order to develop some constraints.
- Visit possible sites



Above – Examples of Cabins and Small Structures

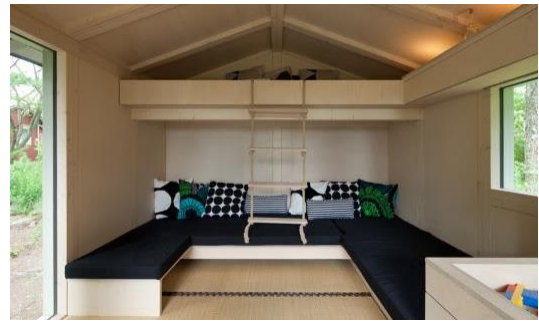
- Recommend to Parks and Recreation existing schemes that can be deployed at a mass scale
- Develop full project program and requirements based on stakeholder input

In the second phase of the studio (Weeks 3-5)

- Students design their proposals for the camp
- Review proposals with Stakeholders and Manufacturer(s)

In The final phase of the studio, students will work in groups on selected design(s) and accomplish the following tasks (Weeks 6-10)

- Task 1 –Students will produce a set of design drawings, do cost estimating, and optimize design
- Task 2 – Construction–Build a prototype of the design
- Task 3 – Design suitable variations, such as larger versions, ADA versions, etc.
- Task 4 – Compile a report on findings



Example Interior Sleeping Space



Prototype of Haiti House built by CPP students during 2010-2011 Topic Studio



Haitian House - built for Housing Expo



Deep Space Vertical Habitat – Built for 2012-13 Nasa Topic Studio