



Stools by Yaacov Kaufman

## **\_consider the stool**

**\_overview.** Often seen as the lesser form to the chair, I would argue for the stool as a fruitful basis of design explorations that foster a direct engagement with materials and methods of production. It's a form whose scale and 'apparent' simplicity allows for the immediacy of 1:1 investigation that must confront the structural dynamism and ergonomic necessities of a sitting and moving human being. The stool is perhaps a more robust figure than the chair in that it allows for a slipperiness of program and form. Not only more variable in height and direction, but the stool can, more fluidly, move between other purposes; table, plant stand, book storage, step ladder, figure of contemplation, etc.... It's a form that is often more conducive to mobility through flat-packing and folding - speaking to its Egyptian/Roman Curule origins.

The history of architecture and design is marked by moments when designers investigated the use of new materials and/or technologies through the development of furniture prototypes. From Thonet's refinement of steam bent wood and jigs in the 19<sup>th</sup> century, to Marcel Breuer and Mart Stam's steel tube bent chairs of the early 20<sup>th</sup>, Charles and Ray Eames use of plywood and fiberglass composites in the 50s, Verner Panton's groundbreaking injection molded chairs of the 60s to Marcel Wanders use of carbon fiber and aramid tows in his contemporary chair designs. We will both learn from and understand our work in continuity with this history.

How material is given agency in a design process is a fundamental question in this course. Our aim is to renew the interest an architect plays in making and along with this, consider the role of material as the matter through which design is generated. Within this framework, this course will foreground a materialist approach to design, engaging logics of fabrication, assembly, detailing, and craft with constituent connections to methods of digital design and manufacture. The vehicle for this exploration will be two stool projects. The first will utilize CNC technology (students will be trained to run themselves) with birch-ply and the second made from ply, other materials and robotically bent steel rod. A workshop in MIG welding will add to the course skill-set. Given time, approach, and aptitude the second stool may evolve into a chair design/prototype.

Design projects will be pursued through a methodology that privileges thinking through making – fabricating designs and material /detail investigations at working and 1:1 scales. However, the role of 3D modeling /hand sketching will not be discounted as an essential tool in the process. Foremost is the development of a productive feedback loop between analog/digital designing/analyzing and physical production.

**\_cost.** A \$100 lab fee is associated with the course which will cover materials and machine time for the two stools. Cost overruns incurred in the development of the second stool into a chair design/prototype will be covered by individual students and will vary depending on selected method, material, process, etc...

**\_pre-requisite.** Arch 537 or equivalent. Status of equivalency requires approval of the instructor.