The first design assignment in Furniture Design studio was taken from *Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships* by Gail Greet Hannah. The book discusses the life of Rowena Reed Kostellow, who taught industrial design at Pratt Institute for more than 30 years and developed a course of study which she called “foundation.”

Rowena Reed Kostellow’s belief was that three-dimensional designs should be sketched three-dimensionally, not two-dimensionally. The tools of her studios were clay, cardboard, wire, and glue, not paper, pencils, and markers. She felt that 3D sketching reflects “the direct visual experience of the thing, how forms and spaces and movements ‘speak’ to one another.”

This notion of 3D sketching formed the basis of our studio.
The first exercise, adapted from Hannah’s book, was to create 25 small sculptural clay compositions of three volumes each.

- Each volume had to be linear, not curvilinear.
- Each volume was required to be different from all the others used in the exercise.
- One of the volumes needed to be “dominant,” one “subdominant,” and one “subordinate.” The dominant volume was to be the most prominent and have axial movement. The subdominant volume had to respond to the dominant volume and complement it. The subordinate volume needed to complete the idea.
- Each composition was required to incorporate one of three joints: “cradling,” “wedging,” or “piercing.”
- Each composition was to convey one of a given list of 25 emotions.
Furniture Design Studio, Marymount University, Spring 2006
3D sketches

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Six quick pencil sketches of my favorite compositions

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Our second exercise was also taken from the Hannah book. This assignment was to create five to seven clay compositions of five volumes each. The parameters of the assignment were:

- Each volume had to be either linear or a sphere, ovoid, plinth, cylinder.
- Each volume was required to be different from all the others used in the exercise.
- As before, we needed to pay attention to "dominant," "subdominant," and "subordinate."
- Each composition was to incorporate one of the same three joints: "cradling," "wedging," or "piercing."

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3D sketches

Furniture Design Studio, Marymount University, Spring 2006
3D sketches

Furniture Design Studio, Marymount University, Spring 2006
To prepare for our next project, we selected ten traits that described ourselves. In class, we worked with our classmates to hone these descriptions and reduce the list to six traits, with our classmates changing the list as they wished. My final list was: Inquisitive, Driven, Trapped, Tactile, Strong, and Flexible.

The sketches on this page and the next two pages are my preliminary sketches of these traits. My final drawings follow.

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trait sketches
Trait sketches

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Here are the final trait drawings.
The next project, derived from these trait drawings, was to design a chair that had "strength, beauty, and delight" and exhibited economy. Requirements included a plan, elevation, perspective, and model. I began by sketching all the traits, finally settling on Tactile and Strong for further exploration. My final design was derived from Strong.

Working from the same trait and the elements of the chair, our last two projects were to create another piece of furniture for the same line and to develop an economic display system for securely displaying interior design boards and models in the 8’ wide hallway of the Marymount Interior Design department.
chair sketches

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Chair sketches

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Chair Sketches

Furniture Design Studio, Marymount University, Spring 2006
Chair Sketches

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The Spline chair: Recycled copper splines connect the halves of this lightweight side chair, lending strength and unity in both structure and mood. The natural-finish frame and curvilinear legs are FSC certified maple and the back and seat are lined with sealed cork. S-curve back legs introduce a contrasting curvilinearity and motion to the otherwise static rectilinear forms of the rest of the chair.
chair: model

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spline side chair

This chair design was submitted to a competition

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After experimenting with armchairs, end tables, and connected seating, then credenzas, coffee tables, and dining tables, I settled on a simple dining table to accompany the chair for my second piece.

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Second piece: sketches

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The dining table incorporates the materials and rectilinear lines of the chair. The cork-lined tabletop, sealed for water-resistance, provides a resilient surface that protects fragile tableware and softens noise. The table complements the chair but does not overpower the distinctive curves of the chair’s legs. The table design can be translated easily into tables of other sizes, including side tables, coffee tables, and console tables.

The drawings on these pages are not to the scale indicated.

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settle: drawings

2 Side Elevation
B Scale: 1/2"=1'-0"

3 End Elevation
B Scale: 1/2"=1'-0"

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Table: Drawings

1. Perspective
   Scale: 1/2" = 1'-0"

2. Underside

Furniture Design Studio, Marymount University, Spring 2006
Table: Model

Furniture Design Studio, Marymount University, Spring 2006
spline dining table

furniture design studio, marymount university, spring 2006
Display: Sketches

Furniture Design Studio, Marymount University, Spring 2006
display: sketches

furniture design studio, marymount university, spring 2006
This modular system provides a secure means of displaying student boards, artwork, and 3D models in the hallway of the Interior Design department at Marymount University. Each module consists of a maple-trimmed cork panel, upright floor-to-ceiling copper-clad posts, copper connection splines, a non-reflective glass panel, and a serpentine spot light. The splines connect the panels to the supporting uprights or to neighboring modules. Ends are secured by either a fixed glass panel or a locking glass door. The cork panels can be installed without the glass surround if security is not desired.

The plan, elevations, axon, and section show a single module. The perspectives and the model show five connected modules.

The system also includes a cork-faced trolley that can be rolled into the enclosed display area to support 3D models. The trolley has a removable lid with storage space beneath.

The materials chosen for the three pieces - the chair, the tables, and the display - are all sustainable. Maple is readily available from certified sustainable forests in many localities. Copper is one of the most recycled metals. Cork is a rapidly renewable resource.

All three pieces allow great variation in materials. For example, the maple could be left natural or be stained, other woods both common and exotic could be substituted, or metals such as steel or aluminum could be used in place of copper. Cork is available in many patterns, but other materials could be used in its place. Materials could be reversed, with for example a metal frame and wooden splines. The basic organization of the pieces could be captured in completely different materials such as plastic, clear resin, or mesh. The pieces could also be simple painted plywood. As a result, the line would be highly customizable, permitting both mass-produced and high-end versions.

Furniture Design Studio, Marymount University, Spring 2006
display: drawings

1. Plan
   Scale: 1"=1'-0"

2. Front Elevation
   Scale: 1"=1'-0"

3. Side Elevation
   Scale: 1"=1'-0"

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display: drawings

Exploded axon

Wall Connection
Scale: 1"=1'-0"

Section

- Blocking
- Gypsum board
- Plywood
- Magnetic bar
- Fastener
- Copper clad steel spline
- Cork
- Concrete block

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display: drawings

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display: drawings

furniture design studio, marymount university, spring 2006
display: model

furniture design studio, marymount university, spring 2006
display: model

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boards

furniture design studio, marymount university, spring 2006
boards

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