

mGates



design



# Luma



**Luma** is a light fixture I modeled as a first year design student. It was rapid prototyped on a 3D printer and uses an LED light source. The inspiration for **Luma** came from nature. The **Luma** design was inspired by the form of various fungi and the function of the sphere, nature's strongest structure.

**Luma** was truly my introduction to the design world. It started me on the right path with sustainability, function and form. Creating **Luma** was also my introduction to rapid prototyping (RP). I am convinced that RP and its progeny will be a crucial part of all modern design, engineering and manufacturing due to its efficiency, speed and ease of operation.

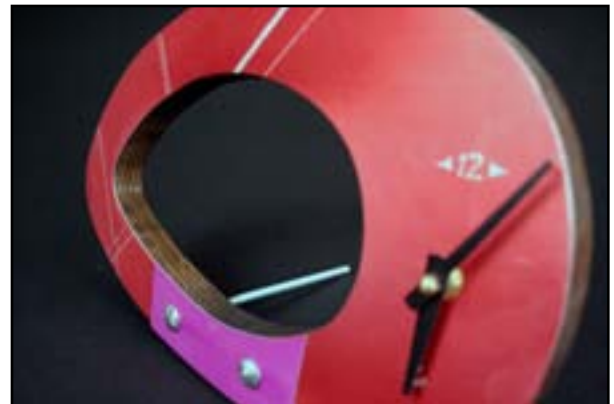


# Egg Timer

**Egg Timer** marks my first foray into metal working. It is a clock made from hand formed aluminum, oak and steel bolts. The aluminum is anodized and hand decorated. The mechanism is installed in the back with an easily accessible battery. The bolts act not only to hold the piece together but also as a stand.



Metal working is an art form that with which I had no experience before the creation of **Egg Timer**. I was lucky enough to enter into the tutelage of the legendary metal artist Chunghi Choo. Metal is an unforgiving medium, which played a large part in its attractiveness to me. Working on a computer screen is to modeling and prototyping as digital photography is to making pictures. It is cheap, easy and easily manipulated. Metal forced me as the designer to put a significant amount more planning, forethought and skill into creating a single piece. This practice made me a more careful and thoughtful designer as well as opening up a new medium with a wide range of possibilities.



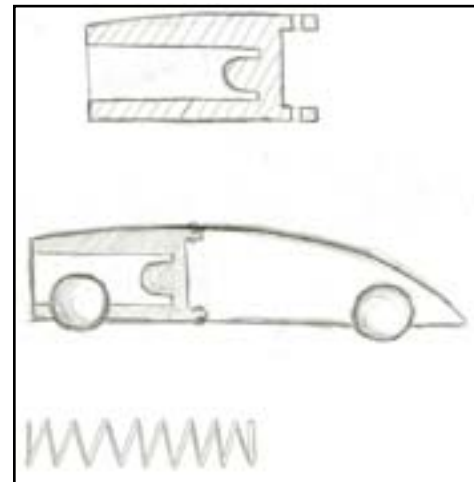
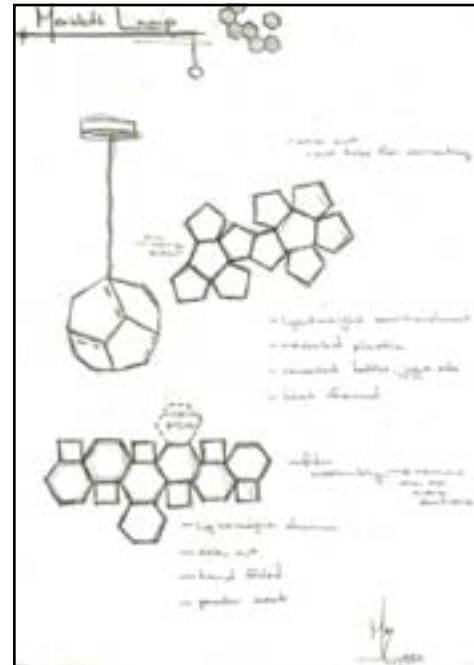
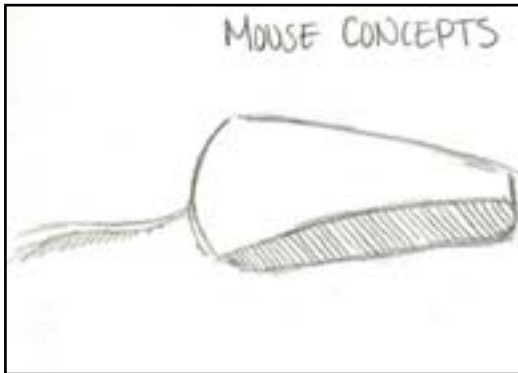
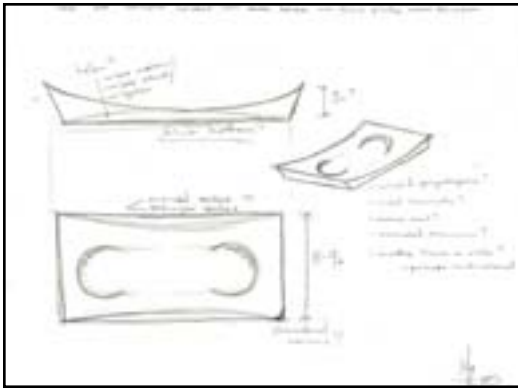
# Mantis



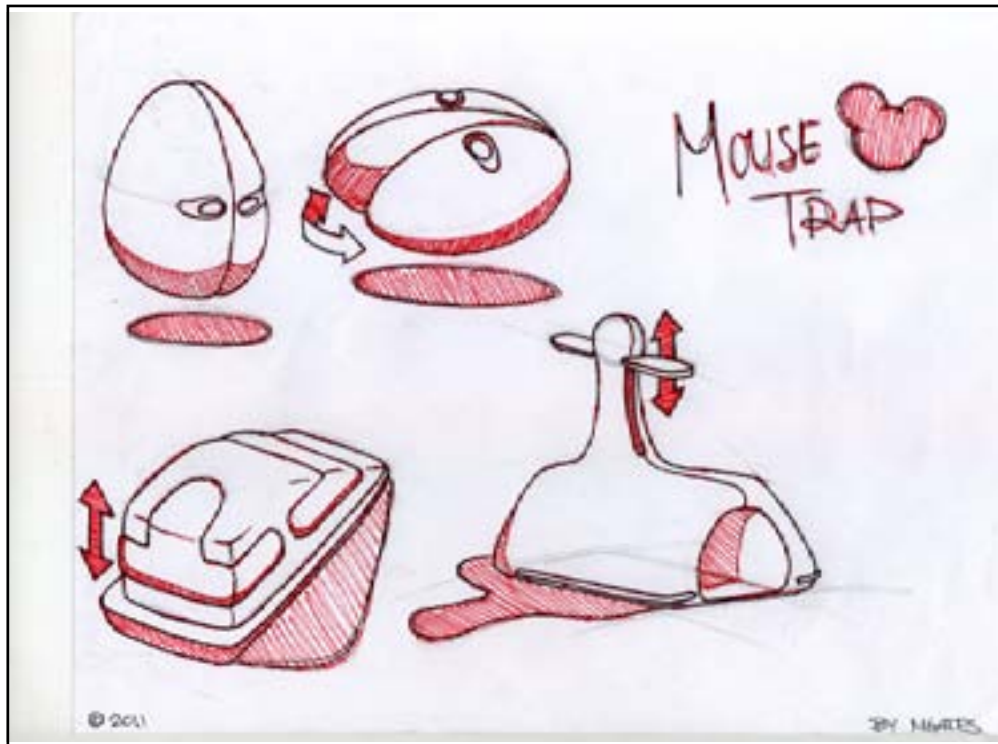
**Mantis** is another early project. The magazine rack is made out of eight gauge steel and is powder coated in black. The steel form was cut from a four foot by four foot piece of sheet steel using a CNC plasma cutter. The design had to be transferred from a 3D model into a 2D CAD drawing before being cut. The form of a praying mantis is translated into the lines and planes of architecture morphed into what is now **Mantis**.



# Sketchy



# Sketchy

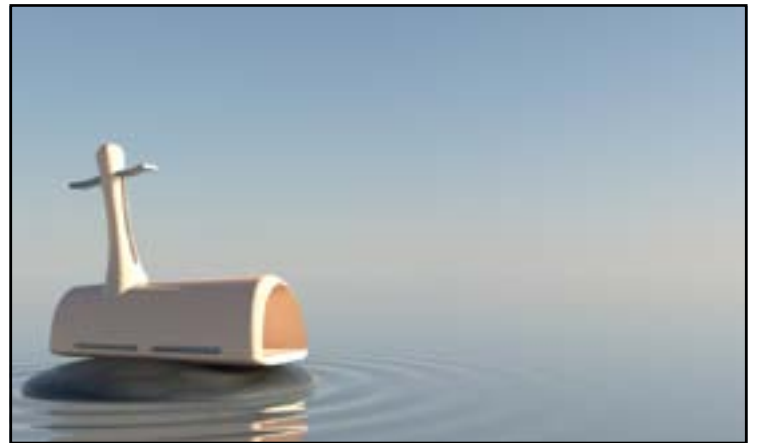


**Sketching** has always been an important part of my take on the world around me. Everyday something inspires a new idea. Whether that idea turns into an object I will someday hold in my hand is something I never know. But what I do know is that once something inspires me it digs its way into my head and bothers me until I can get it onto paper. Being able to render an idea in two dimensions is an invaluable step in the design process. As an idea matures, a quick but accurate **sketch** can help me find the solutions to innumerable problems revealed in the **sketch** before.

# Apply

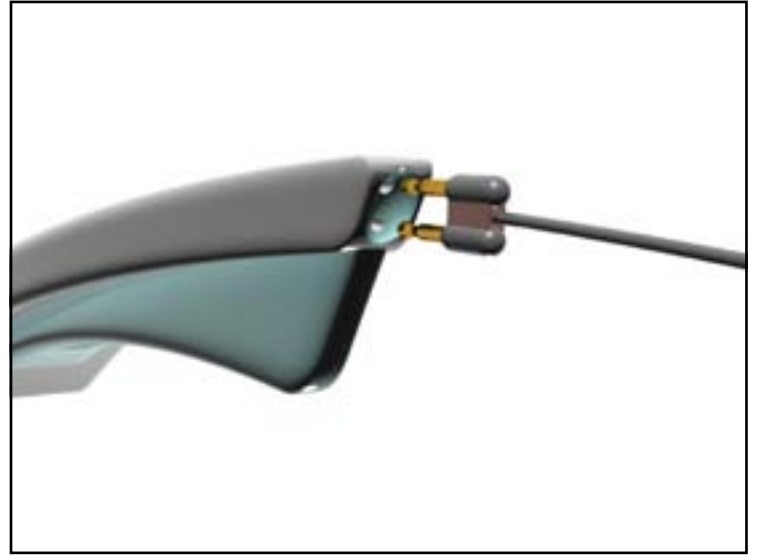


I feel that one of my most valuable skill sets is that of 3D modeling. There are few things I enjoy more than being able to take simple forms and manipulate them in an infinite 3D space, I can create anything I can image and render it in photo-real images. The **application** of these skills is limitless. The examples shown here exhibit work done for three separate clients, two engineers and one architect.





**YAK**  
design



**YAK Design** represents the product identity under which I design electronics. All of these electronics begin as sketches, are created as 3D models and are then rapid prototyped on a 3D color printer. Shown here are **Handi** and **Ryder** a hand-vac and pager respectively.

# Aerplain



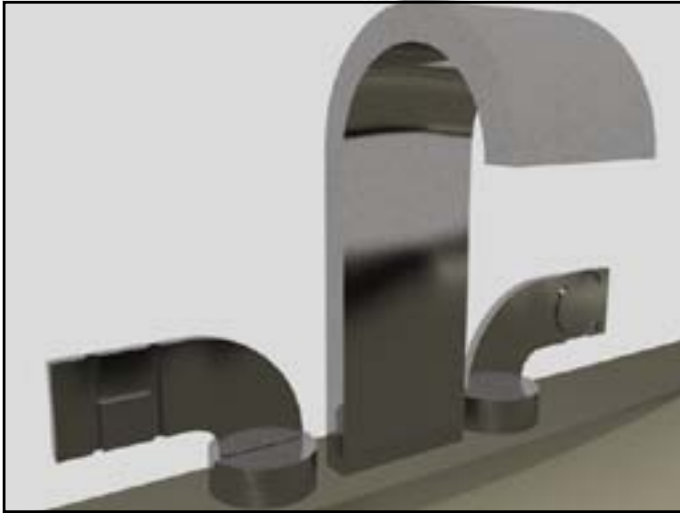
Furniture design is a hobby that I picked up in high school. I have been exposed to wood working since childhood and even before I had any formal training I began creating my own pieces. My innate ability to envision a furniture piece that would also function has now been honed with exposure to 3D modelling. This piece, a side table with integral vase is based off of Frank Lloyd Wright's prairie style. However I removed much of his ornamentation, making a more open, airy feel. Hence, **Aerplain**.

# Cuki

I enjoy wood working for a number of reasons. One of these is the abundance of textures, colors and weights that are available in one medium. Being able to piece all of this texture together to create secondary forms is a quality possessed only by wood. And I attempt to take full advantage of this. Shown here is a side table/magazine stand made from padauk, pine and oak, with a variety of finishes including a gloss black paint.



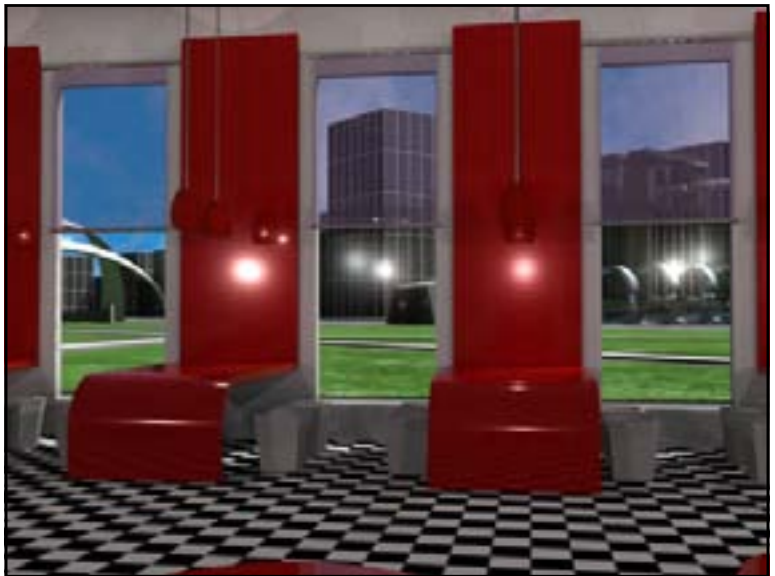
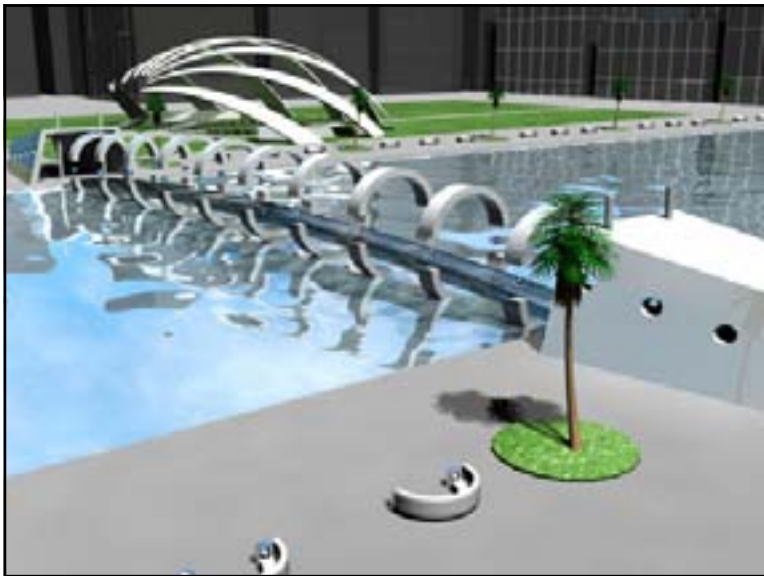
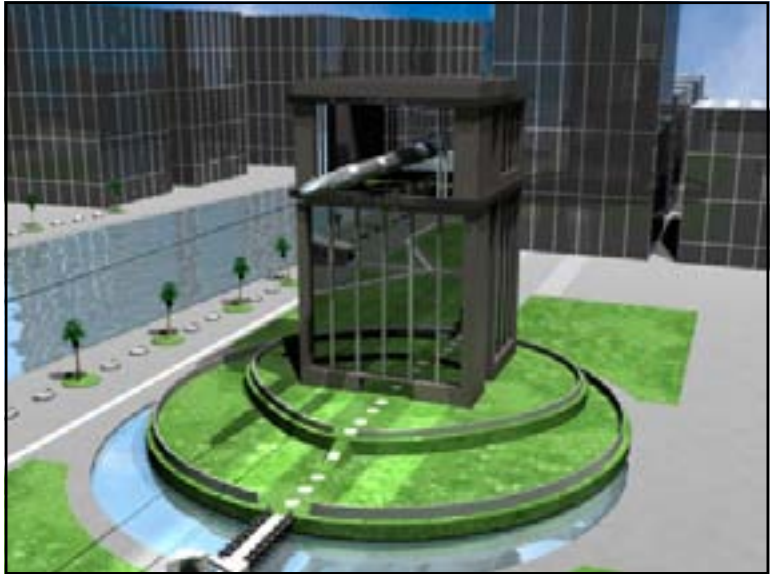
# Model



**3D Modeling** is the wave of the future for good reason. Never before has a designer been able to utilize a virtually infinite three dimensional space. Morphing simple shapes into complex structures, modifying geometry to impossible extremes, the ability to create anything and everything one can imagine, is the dream of any designer. For all these reasons **modeling** has become the keystone in my design method from small scale products to large scale cityscapes.

# Youtopia

**Youtopia** is the product of an assignment in an early 3D modeling class. An assignment that required simply a building grew into my own personal exploration of materials and modeling techniques within the 3ds Max software. The result is a sprawling space with a train, a detailed bridge, two large buildings, a café and an outdoor pavilion space. Working with outdoor lighting and environmental conditions was also a first.



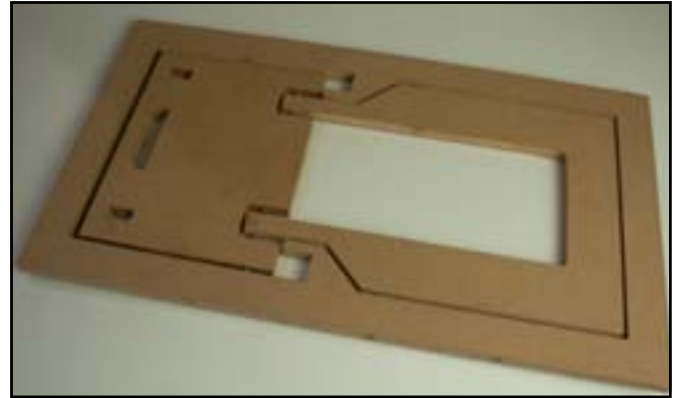
# Meloidea



**Meloidea** is a project that I completed for an environmental design class. Made entirely of recycled wood the chair was cut from a solid four foot by four foot sheet using a CNC router. Like **Mantis** this piece had to be transferred from its three dimensional model into a two dimensional autoCAD drawing. The chair is made up of three pieces that lie flat. The pieces can be articulated into the chair position simply by moving the handle. Conversely, the chair collapses by lifting the handle.

# Meloidea

The inspiration for **Meloidea** comes from watching the movements of beetles. The task called for a chair that was fully functional, but could also be fitted into a suitcase or travel bag for easy transport. Beetles have an uncanny ability to make themselves as small and sleek as possible when immobile but once they need to move they expand into their full form. This seamless transformation is what inspired the mechanism for the chair. However the form comes from simple geometry.



# Graphic



**Graphic** design has been an integral part of my design training as well as my interest in the design field. The deeper I've gotten into the **graphic** and 3D design fields the more I've realized how much they have in common and how much they echo each others' concepts. A solid grasp of **graphic** design has also provided me with an avenue to present my work, as well as branch into branding myself and my work. **Graphic** design is a field which I would like to pursue and use in my career. Shown on this page is my personal brand: mGates design. Presented are letter head, logo and business card concepts.

# Graphic

Shown here are two magazine spreads and a postage stamp concept. The postage stamp and lower left layout display font studies while the top spread features work by Philippe Starck, one of my personal heroes. All of these presentations use Gestalt theory, use of white space and other key concepts that are readily evident in 3D design work as well, illustrating the convergence of my 2D and 3D design.



# Greet



**Greeting Cards** also started as a hobby, but matured with my sketching and design skills. Having grown sick of the kitschy sayings you find in cards these days, let alone the ridiculous, predictable illustrations, I began drawing Christmas **cards** and thank you notes myself. Once I was exposed to the theories of graphic design, this pastime snowballed into something I do whenever I've got **card** stock and some free time. Only recently did I begin reproducing my **cards** and making them available to whoever wanted them. The occasions for which I have drawn **cards** now ranges from funeral to belated birthday to sympathy and valentines.

# Meet Max Gates



I was born and raised in Springfield, Illinois, and currently attend the University of Iowa in Iowa City, Iowa. After attending Springfield High School, I enrolled at the University of Iowa as a Journalism student. It took two semesters in that major to show me that my true love lay in the design field. As a design student I have had the opportunity to show my work in shows both domestic and abroad. Following graduation I hope to work for a large design firm, possibly overseas, and someday open my own firm. In the meantime I hope to accumulate as much experience in the field as possible, through academics as well as real world practice.

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