

Recent Works

by Dan Tesene

After working in the realm of prototyping for more than a year, I became more fascinated with the process of layering two-dimensional images than what the form originally was in the computer program. I began to trace layers from the dissected stl files and cut them out of paper to then be assembled as an object. This was an important step in beginning to understand a new methodology and way of thinking about forms.

While working on *Paper Complex*, I came across the work of the French physiologist Etienne-Jules Marey, whose life work stemmed from his fascination with movement and time. Working as a medical doctor in the 1880's, Marey invented the first cardiogram by attaching a stylus to a diaphragm connected to a patient's pulsing veins.

His work then moved to the study of human and animal locomotion; he created a photographic gun to capture multiple images of birds in flight, which was followed by a slotted disc camera which captured multiple images of hu-

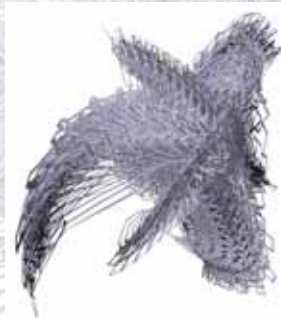


Figure 1: Fossil render example of earlier "Fractal Fossils"; non-algorithmic forms fully dependent upon 3D modeling and the interaction of the artist's hand.



Figure 2: Paper_Complex; Paper "lift" construction.

man movement layered all on one piece of film. Moreover, his inventions led to the development of moving pictures and animations, as well as the strobe.

My interest in prototyping as a layering instrument, and the work of Marey and the early animators, clicked instantly. Why not use cells of animations and film to produce objects?



Figure 3: Smoke Paper "lift" construction from video frame tracings of laser defined smoke patterns.

Figures 4: (a) Monkey 2; (b) Monkey 3; (c) Monkey 4; (d) Monkey 5.

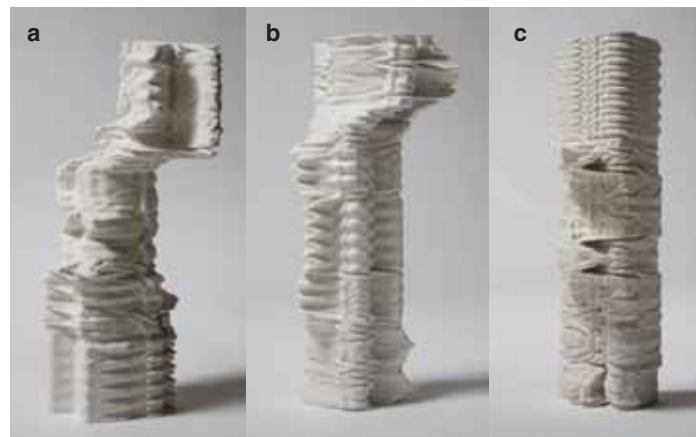




Figure 5: Monkey 5.

Using **form•Z**'s lofting tool, I joined together frame upon frame of imagery derived from turn of the century cut out animations and the experiments of Marey. The final results are quite jarring and abstract, only to reveal themselves on the ends as their true animated form.

This work for me is about the creation of philosophical objects, questioning how we perceive the passage of time. Therefore, prototyping led me to discover a synthesis between process and concept, where the process reveals a deeper meaning of the form.

Since these original animated forms I have delved more into representing natural phenomenon which are fleeting or unnoticed. In my piece titled *Smoke*, I cross-sectioned a plume of smoke with a spread out laser beam and documented it with video. The video was traced frame-by-frame and hand-cut out of paper to solidify its ephemeral nature.

In a recent experiment, I worked with a 3D scanner to document a flower as it naturally transitions over the course of ten hours. In the end, all the data is compiled into one form that shows its passage of movement which would normally be unnoticed by the naked eye.

Prototyping, as a medium, has changed not only the way I build but also my own perception of reality. My work has branched out beyond the prototyper into a new way of thinking and capturing data for the creation of forms.

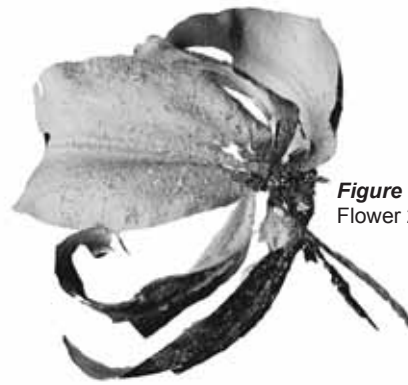


Figure 6: Flower and Time: Flower 2--3D digital scan.

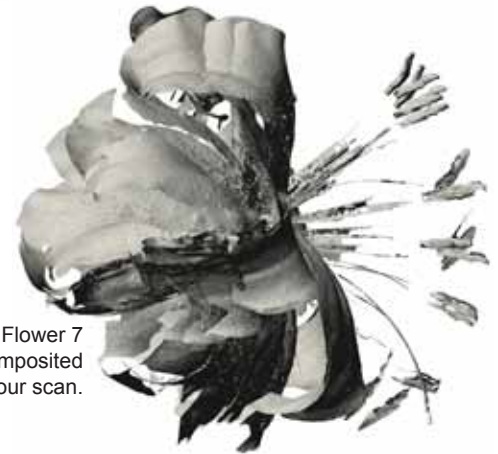


Figure 7: Flower 7
Final render of composited
10 hour scan.



Figure 8: Flower 4--3D digital scan.



Dan Tesene grew up in rural Iowa, where, from a young age, he developed a deep appreciation for the beauty and intricacies of nature. Tesene completed his undergraduate degree at the Minneapolis College of Art and Design, where he became fascinated in the relationships between mechanical and natural systems, manifested through his 3D modeling work. After graduation, Tesene was awarded the Jerome Foundation Fellowship for the Arts and also won the 2005 **form•Z** Joint Study Award of Distinction for Fabrication. During his fellowship, Dan began analyzing the process of prototyping and the breakdown of forms, which led him to the work of Etienne-Jules Marey and other revolutionary inventors who laid the foundation for this type of thinking. After completing his fellowship, Tesene traveled to Cairo and Alexandria where he participated in the group show *Convergence*. Tesene now lives and works in New York City.