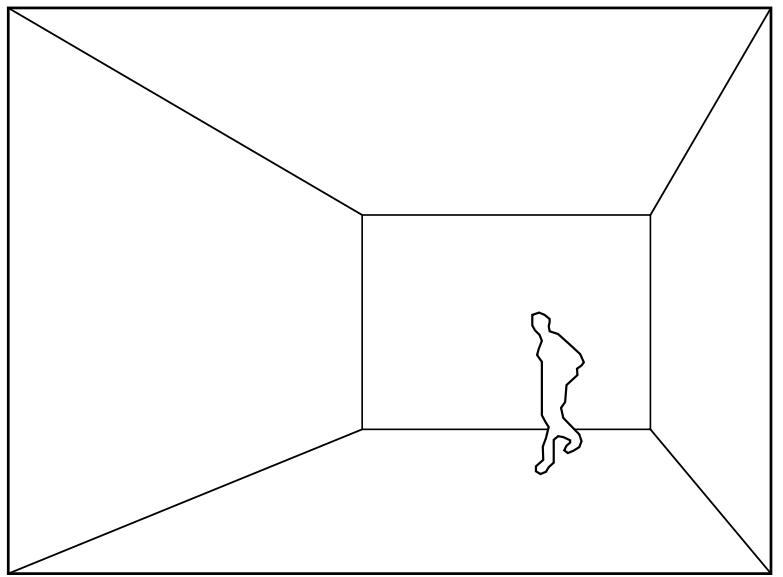


Color Material Space





COLOR MATERIAL SPACE

2013

Hochschule Rosenheim University of Applied Sciences

Florida Atlantic University School of Architecture

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How Much Art Can Interior Design Take?

Professor Denise Dih

Education in interior design is a discipline born of investigations into various and varied fields. The field of fine art is one of the most productive components with which to initiate a creative process based on intuition.

Dedicated to integrating a dialogue with artistic processes into the interior design curriculum, the series ACHTUNG GEBILDE ! presents a series of experiments employing artistic strategies to generate space and transcend physical boundaries. The theme is to depart from the physical limitations of space and dive into 'other' dimensions. Common to all of the seminars is the focus on making as a primary process, on the implementation in 'real' materials, which not only goes beyond the abstraction of architectonic scale, but at the same time leads back into the abstraction of visualization.

A 2013 workshop conducted by the University of Applied Science, Hochschule Rosenheim in collaboration with Dr. Henning Haupt, Assistant Professor at Florida Atlantic University in Fort Lauderdale, addressed the medium of color in three-dimensional space. The workshop's compact format provided the freedom that fostered creativity. Paper or canvas were treated as more than a surface; they were conceived as a three-dimensional space, in which the investigation of atmospheric space takes place.

Color and Space

Assistant Professor Henning Haupt Ph.D

Color and Architecture

The class, “Color, Materials, Space,” explores the relationship between color and space and its impact on our perception of depth, shape and atmosphere in architectural design.

While the impression of color has been well explored in two-dimensional composition, such as painting, the use of color often plays a secondary role in architecture. Since the 1920’s, architectural color has generally relied on assigning a single color to a single surface of an architectural element such as line, plane, or volume in order to enhance the three-dimensional composition. This phenomenon, which was perpetuated by modernist movements like the Bauhaus in Germany, the purists in France, and de Stijl in the Netherlands, resulted in the search for universal ‘color schemes’ that were based on psychological responses. This generalized the cultural semantics and connotations of specific colors, and color choices in architecture soon became driven by function, as determined by color theory that focused on the comparison of colors in a two dimensional environment or on charts. While this approach fostered a specific practical implementation of color in architecture, it limited the aesthetic possibilities. The monochrome applications that have been favored since the 1920’s do little to provide the contrasts necessary to

The Mechanics of Color-Space

Color space is a visual phenomenon perpendicular to the picture plane, the production of spatial qualities through the use of color tones, materials and application techniques. The perception of color space is triggered through perception of “color per se,” which the painter Paul Cezanne describes as “area color”, color that is considered independent of form or context. Color viewed in this fashion produces in us, to borrow a term from psychology, an reaction called an affect. This is an empathic response, similar to when one feels a bodily tension when a nearby friend is hurt or angry. This connection between sensation, reaction, and comprehension is called corporeal perception, and was codified in the aesthetics of empathy by Willhelm Worringer in 1907. Corporeal perception is the essence of color space, and it allows us to project ourselves into the intangible space suggested by the colors themselves.

In architectural constructions, this intangible color space is combined with a physical three-dimensional form. This juxtaposes our empathic sensation of space, produced through colors, with our bodily understanding of the three dimensions.

We may grasp the tangible dimensions of our environment through the scale of our body and our physical position, but when experiencing color on objects and in space we note that we relate simultaneously to the color, the form of the object, and the space that surrounds us. The empathic sensation of space and the bodily awareness of physical distance are combined in our experience. In this way, the aesthetics of color space merge with our awareness of physical space in comprehending the design of a three-dimensional construction, producing a unique and multisensory experience.

Classroom Process

Assistant Professor Henning Haupt Ph.D

“Color, Materials, Space,” sensitizes students to color as an architectural element through projects which emphasize the use of color and space. This process starts with the study of two-dimensional compositions of color in paintings. These findings are transferred to the creation of 2- and 3- dimensional objects, and culminate in the construction of architectural installations that employ both two- and three-dimensional color space. The class takes students through five distinct stages:

- 1 - Painting of color charts and color space composition (film and area color, color space perception, color materials, application techniques)
- 2 - Construction of two-dimensional objects (derived from the previously developed two-dimensional color space compositions)
- 3 - Construction of three-dimensional objects (derived from the previously developed two-dimensional color space objects)
- 4 - Design of architectural interventions (integration of movement by the viewer, and with that, integration of performative qualities)
- 5 - Context (semantics of color in relation to form, space, function, location and time)

In all coursework, it is the composition of color that governs the students’ architectural decisions, and student projects are discussed with regard to their sensitivity to color, the evidence of their design process, and their ability to link color to other architectural elements. This concept of color-driven architectural design stresses the importance of qualities that are relative to context, individual and cultural preferences, semantics, etc. Because the goals of the class are primarily aesthetic in nature, students get to experience architecture as liberated from pragmatic concerns, and they are motivated to develop a design process that moves beyond the functional.

By participating in the hands-on process of mixing and applying colors, students experience the impact of tone, value and hue, gain knowledge of specific material properties. They develop a greater sensitivity for color tones, and deepen their appreciation for color in general. After a successful semester’s work, students should be familiar with the creative design process, able to support their intuitive color preferences with conceptual considerations, and apply color as part of their overall design strategy.

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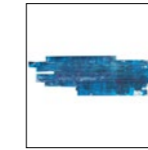
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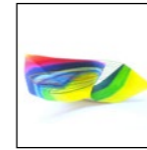
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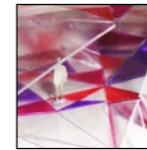
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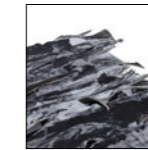
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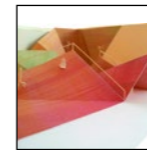
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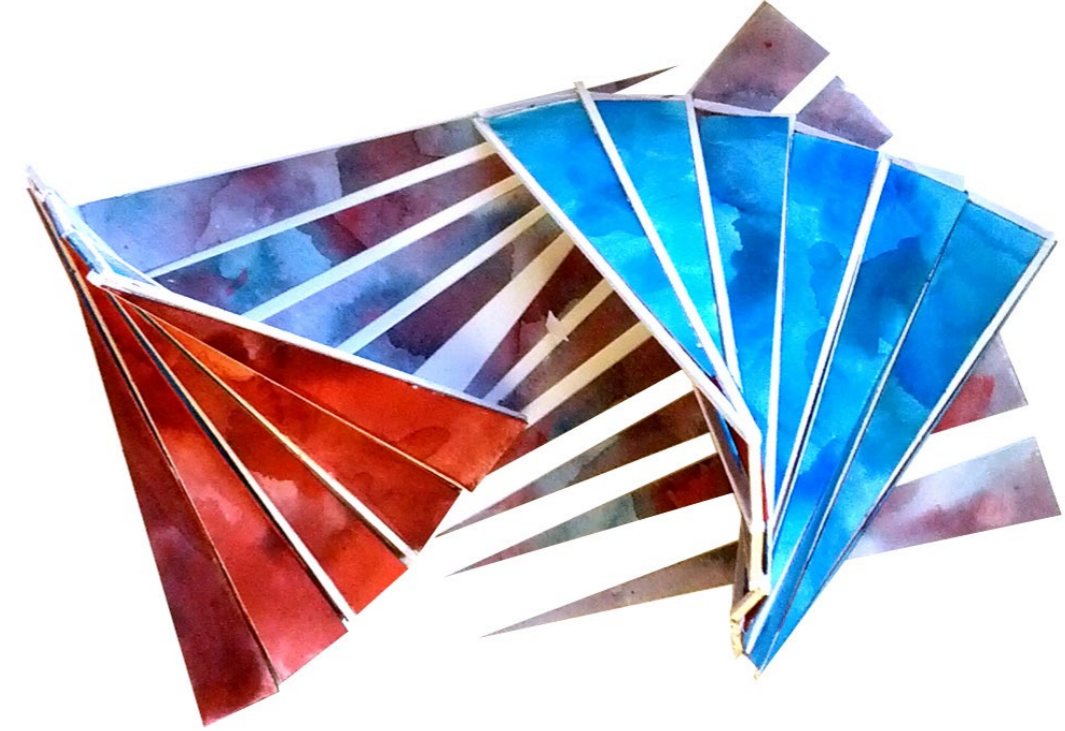
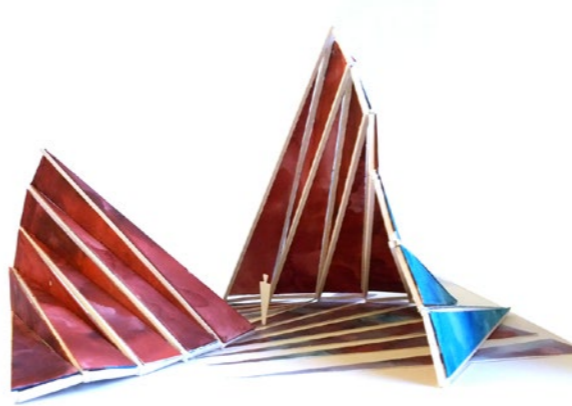


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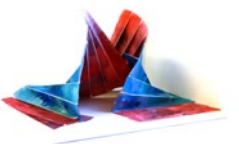
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Color In Motion
Paula Rojas



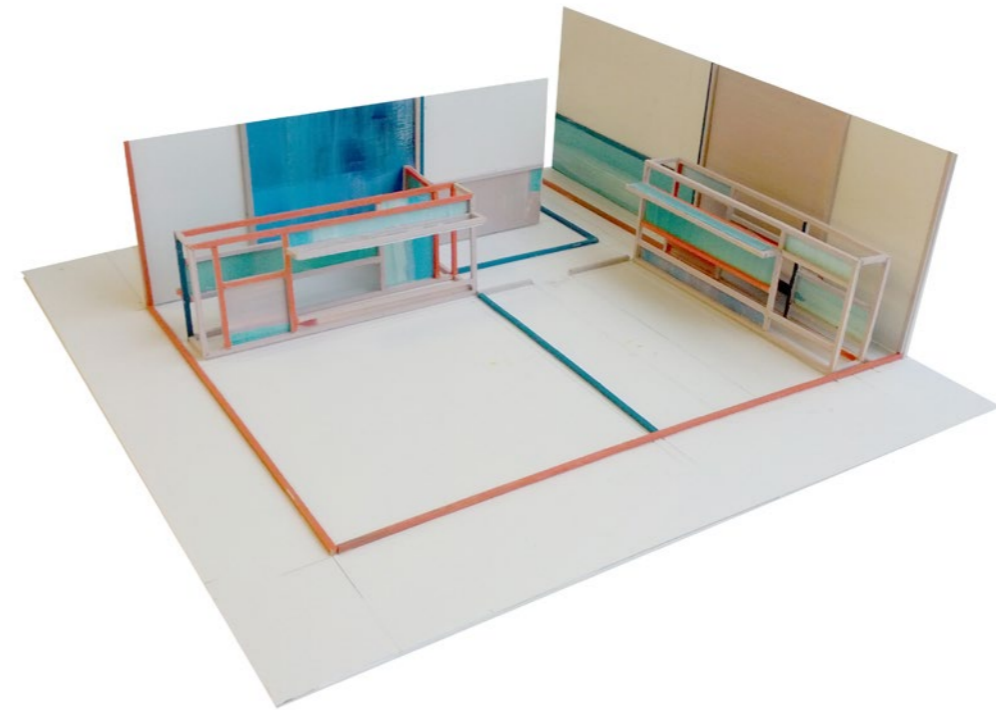
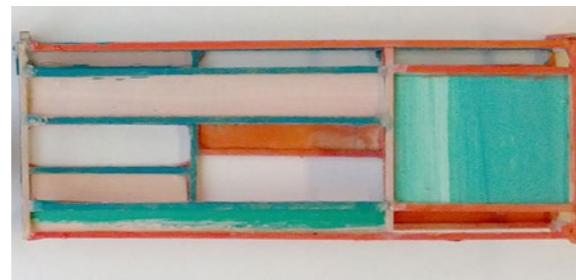
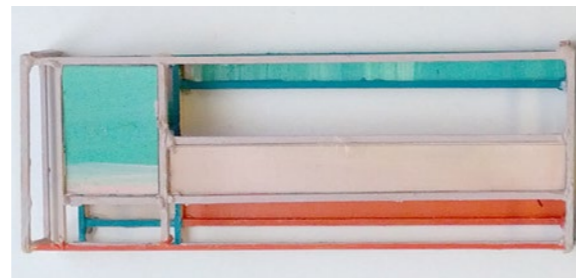
Watercolor on Paper
and Wood Sticks

The project proposes
one large space for
events and activities
shaded and protected
from rain while
ventilated by the
breeze from the east.



Interactive Color Frames

Rita Sosa



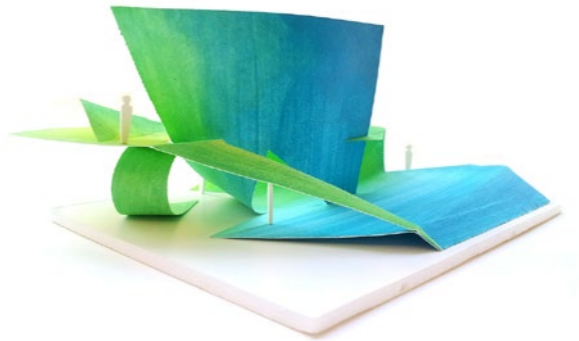
Acrylic Paint on Paper and Wood Sticks

The construction includes epositionable color panels. The wall structure can be moved on tracks to define various areas for different use of the space.



Rainbow Curves

Natalie Pena



Watercolor on Paper, Board, Wood Sticks

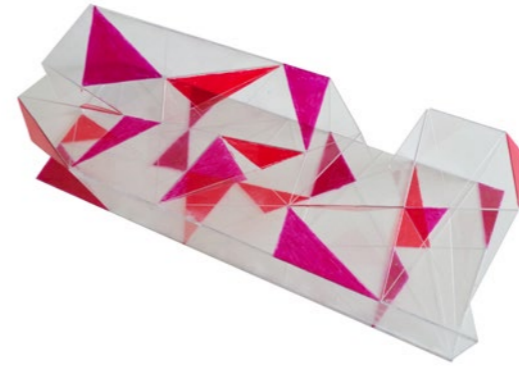
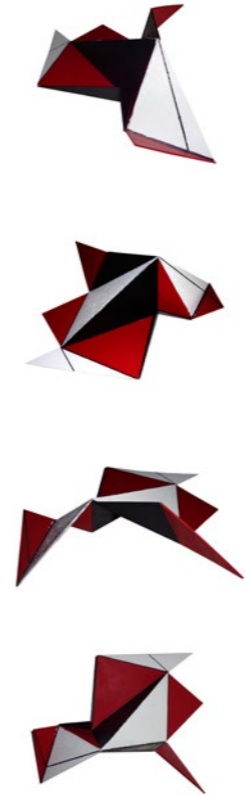
Tones of the color wheel are painted and constructed in a three-dimensional color vortex. The project culminates in a playground made of architectural elements turning a wall into ground and roof and vice versa.

Shattered Perspectives

Maria Torres

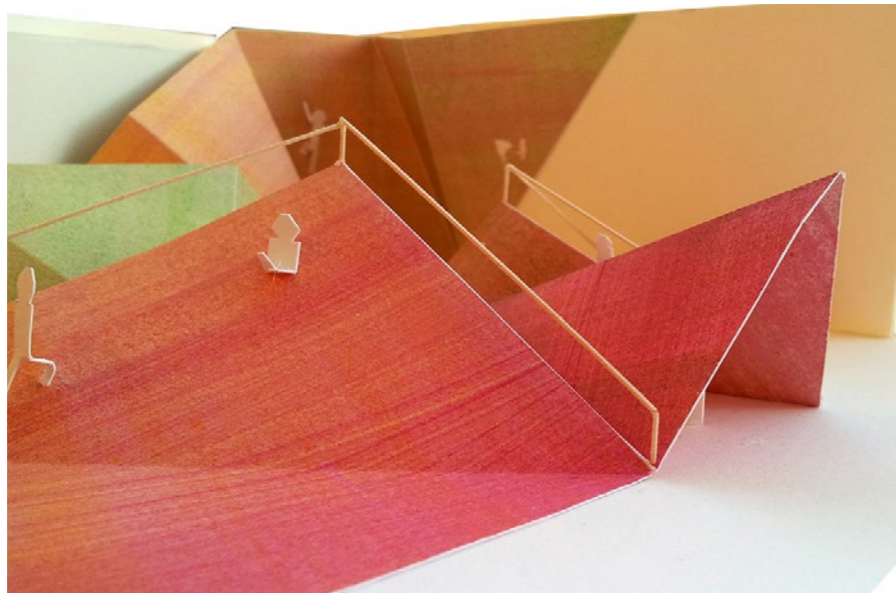
Acrylic Paint on Paper Markers on Polyester

Developed out of three-dimensional objects a labyrinth of color and transparent surfaces invites to explore the mythical elements of color and space.



Folding Landscape

Pedro Rojas



Watercolor on Paper

The construction is a three-dimensional color landscape offering a playground and activities space to the kids of the adjacent neighborhood and art school.



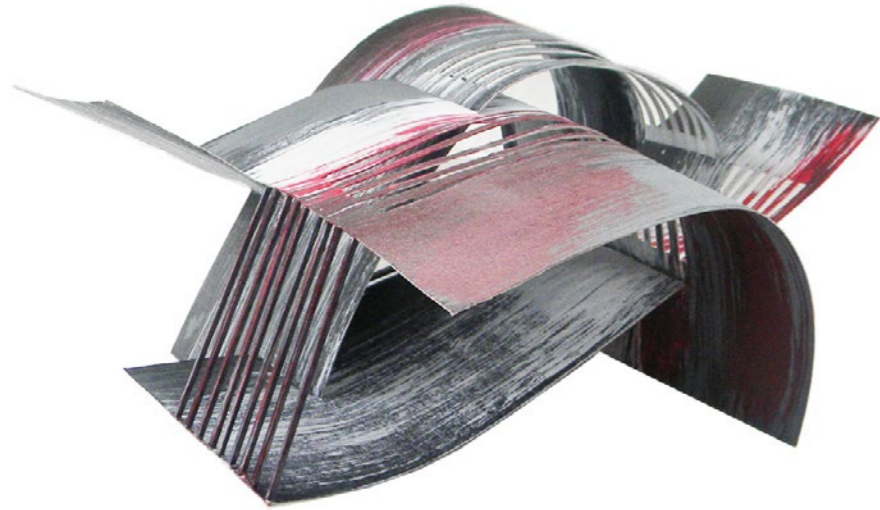
Acrylic Paint on Paper
Digital ink prints on Paper

Two-dimensional techniques of painting and digital renderings are combined with a three-dimensional folding of materials that in return influenced the digital color composition.



Transparencies

Fiorella Olazabal



Acrylic Paint
on Board and Mylar

Transparent layerings
of color is merged
with the transparent
qualities of the
material developing
atmospheres and
forms of movement
combing slow and fast
motion.

Intricacies

Maria Sapatta



Watercolor on Paper

Gentle and quite
variation of colors
are transferred
to a expressive
three-dimensional
construction in a
variety of gestural
qualities.



Colors In Variation

Kyle Benhart



Acrylic, Watercolor on Paper, Board and Wood Sticks

In rich and divers variations of color the color constructions range from color fields, forms, grounded spaces to flying huts

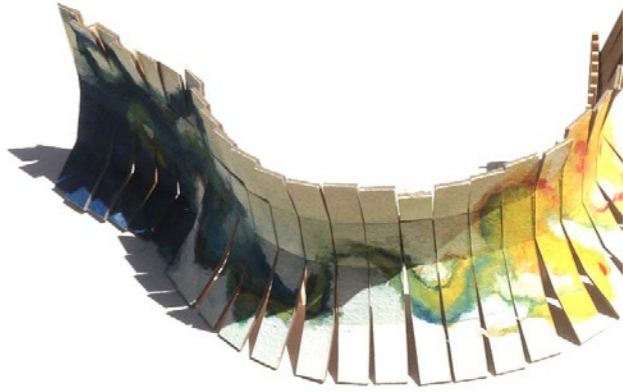
Flow

Jack Danberg

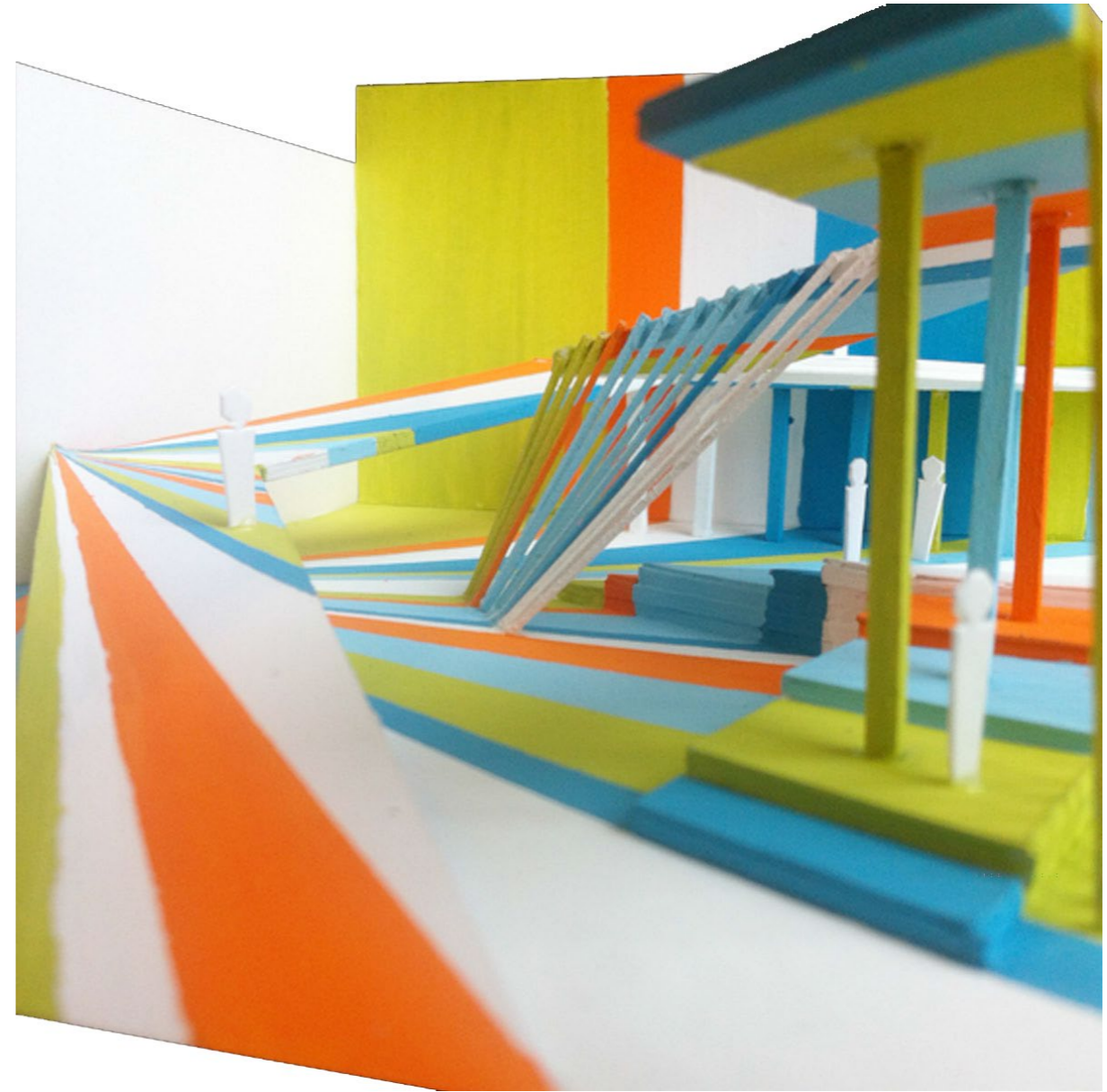
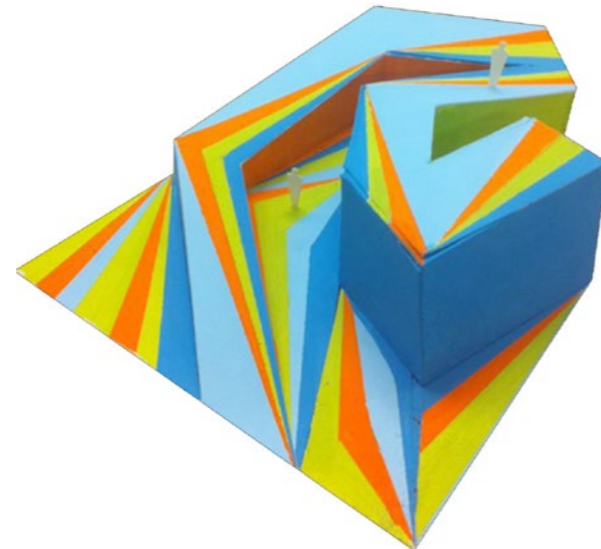
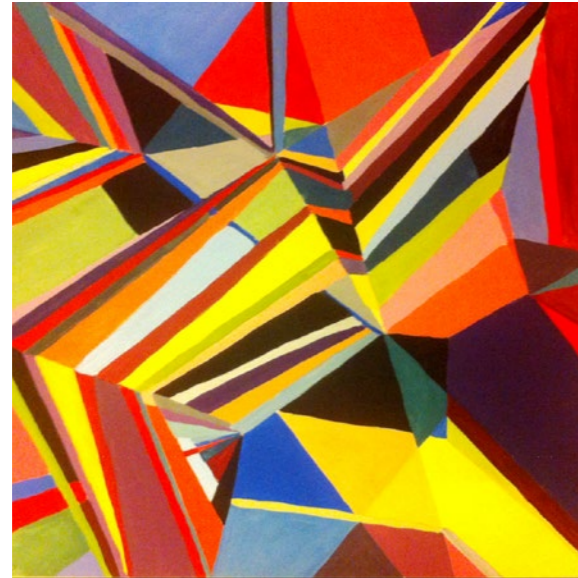


Watercolor on Paper, Board, Wood Sticks

The ransitions of water Colors found its ways to flow in and on these constructions.



Florida Rays
Stephanie Dunn



Acrylic Paint
on Paper, Board and
Wood Sticks

The construction
invites into shaded
Floridian color patios
and elevates the
visitor above the
ground. Potentially its
continuation crosses
over additional areas
and could connect
adjacent places.



Farbe und Raum

Hochschule Rosenheim, University of Applied Sciences

The class Farbe und Raum conducted at the University in Rosenheim was a compact, one-week workshop. Students focused on the application of color and the composition of space on a two-dimensional surface in painting, Cutouts and three-dimensional objects hanging on the wall followed to be completed by a free-standing object.

The workshop was in collaboration with Professor Denise Dih, Hochschule Rosenheim, University of Applied Sciences.

Camouflage Folds

Harald Hochschwimmer



The painting and its three-dimensional form processed to a composition of folded architectural elements defining a complexly differentiated central space.



Paintings

Julia Woisetschlaeger



The paintings explore diffuse and highly suggestive color spaces. The ray of vertical elements may offer a similar experience, especially if expanded beyond the size limitation of the object.



Color Folds

Lisa Maria Haeusel



Complex color compositions and multiple variations of material folding construct an endless, non-hierarchical spatial composition.



Cutout Layers

Sandra Wille



The paintings reveal an production process and its tools. The layering and systematic cutout techniques provides a three-dimensional wall built of those painterly techniques.



Cutout Compositions

Vanessa Wagner



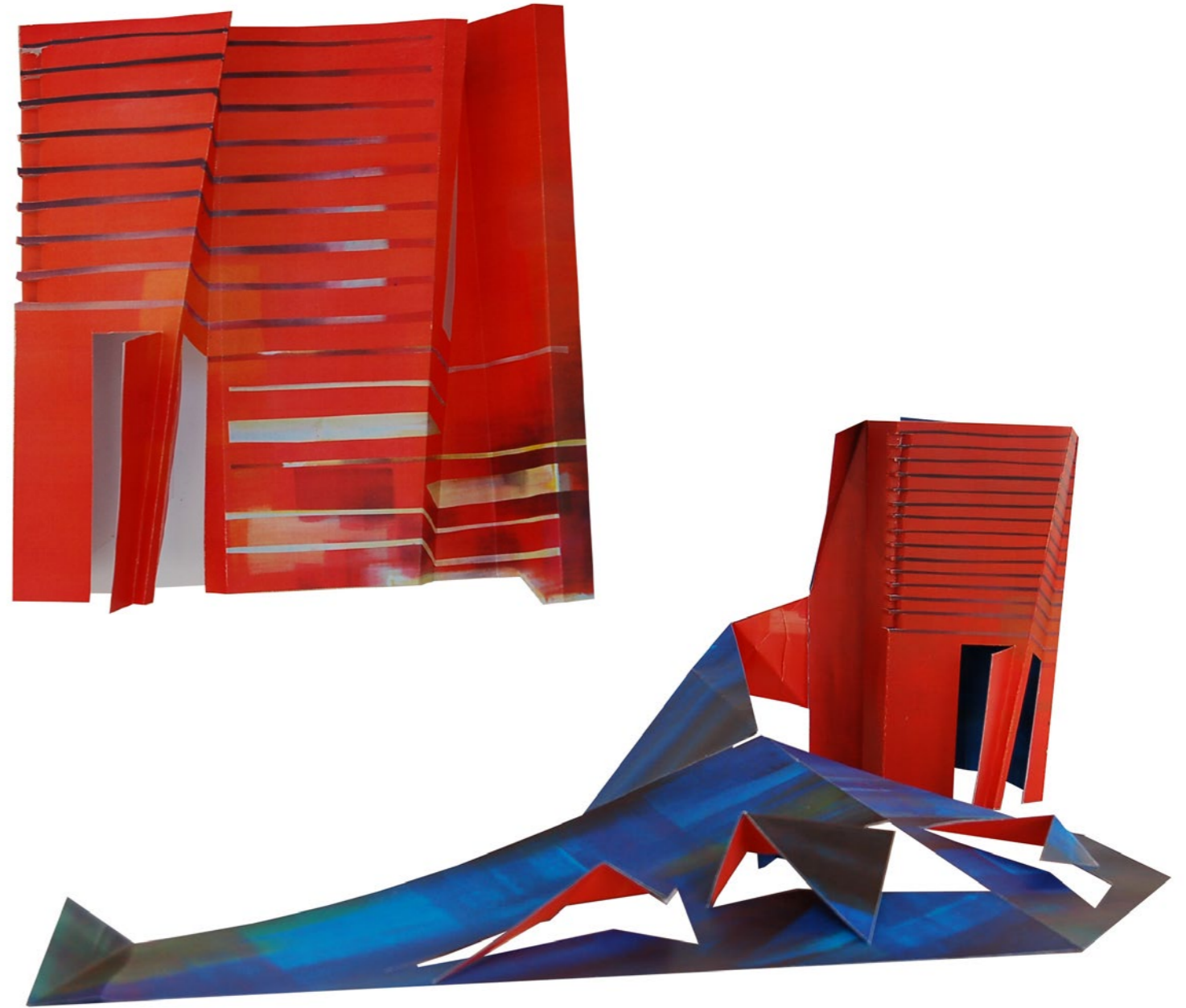
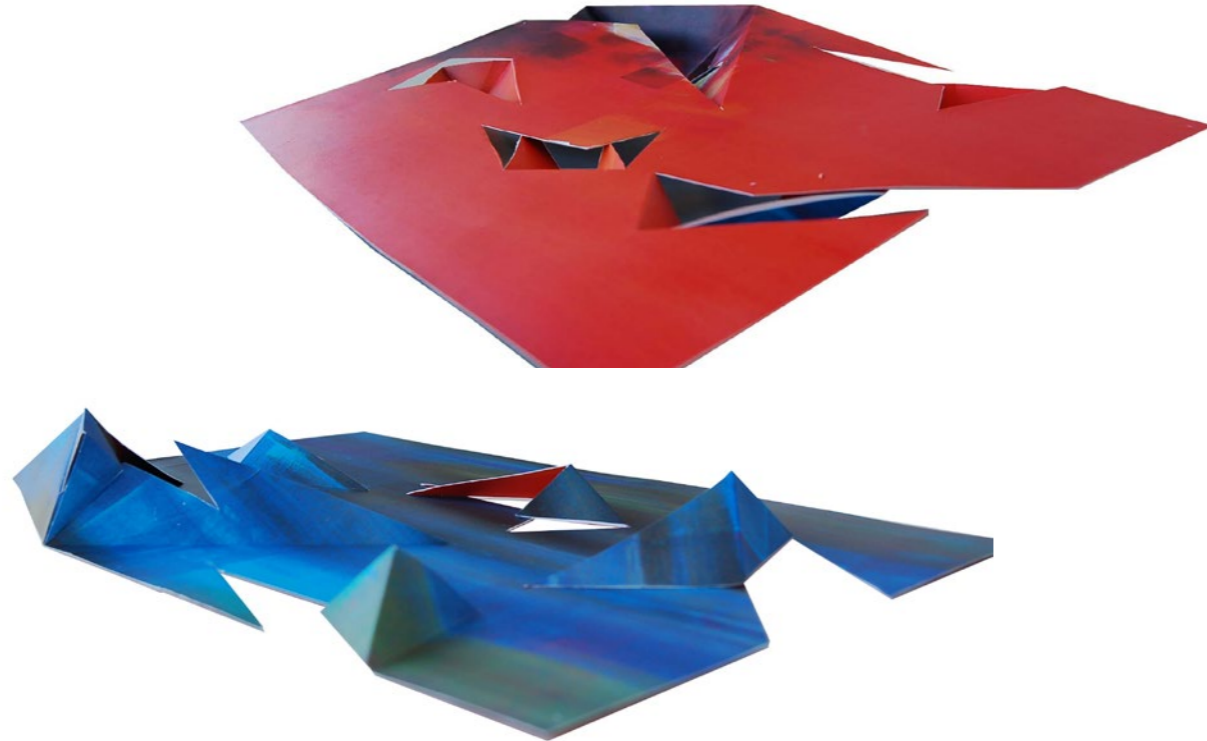
The application of the paint by brush strokes guided the project to a free-standing composition that allows for the experience of dynamic color in space.



Inside Out

Mara Kavelj

The reduced quality of these paintings allowed for complex variation in form and space. The red painting defines the outside, while a second blue painting offers a contrasting atmosphere on the inside. its presence is revealed through various cutouts, openings and folds.



Bowed Colors

Veronika Meinhardt



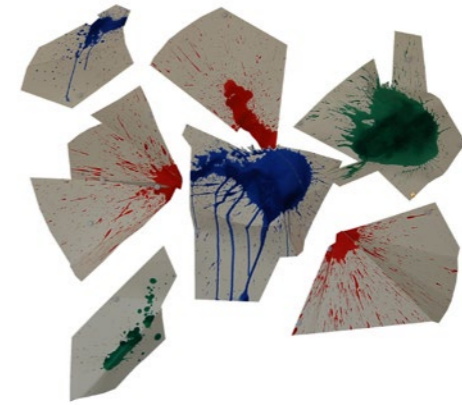
The painting's surface maintains its consistency, while a three-dimensional complexity is introduced as form, opening and overlays coherent to the application of color.



The organized set up in these experiments allowed a free expansion and expression of color. The form of the surfaces of the object was constructed as a canvas for pouring and run paint three-dimensionally.

Dripping Colors

Christoph Watermann



The Tunnel

Henning Haupt & Dain Giannattasio

Site Specific Color Painting

The Tunnel is the pedestrian passageway connecting the city parking garage to the campus of FAU. The project started in the class Color Material Space at FAU in spring 2012 developing preliminary ideas for a color-space design. In spring 2013 a undergraduate research project started and explored further the relationship of color and space on the inner surfaces of the tunnel.

The project proposal included various color schemes for the tunnel surfaces presented in architectural objects, models and perspectives. For the final implementation, rather than choosing an image that would be transferred to the surface the location, its space, possible technique, materials and process were defined. The painting was then executed in six layers of paint rolled on walls and ceiling. All tones are developed on the surface as a result of adding transparent layers of red, yellow and blue. The colors in the space are building a color-space in the existing tunnel orchestrated by a painterly process. Color space and physical space merged, layer-by-layer, into an inseparable architectural color-space construction.

The Tunnel was developed and implemented in cooperation with Dain Giannattasio, Recipient of FAU Undergraduate Research Award, 2013.

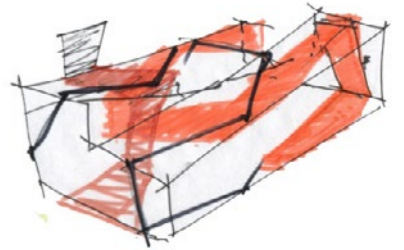
It got selected as the best Public Art Project 2014 in Fort Lauderdale and West Palm Beach by the Broward PalmBeach New Times magazine.

Location: South side pedestrian entrance to the City Parking garage between NE 1 and 2 Avenue, north of Las Olas Boulevard, Fort Lauderdale.



The Tunnel

Variation 01



Model:
Tunnel Surfaces
Schematic Diagram
Rendering Tunnel

The Tunnel

Variation 02

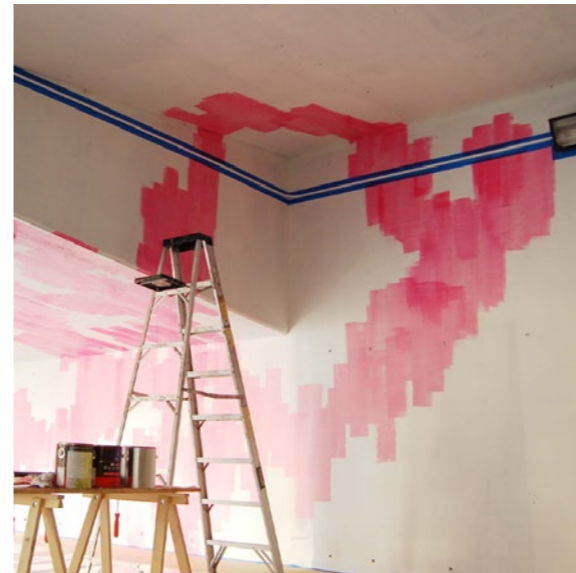


Model:
Tunnel Surfaces
RenderingTunnel



The Tunnel

Process



Implementation process consisted of a layered painting technique that built the transparent colors with each pass.



The Tunnel
View to the West



The Tunnel
View to the East





