Merriam-Webster defines therapeutic as an “offering or relating to remedy.” If therapeutics are a way of offering a remedy then what is a vacation? A vacation is an “extended respite from a physical routine and thusly is therapeutic.” Can a “therapeutic environment” create a “vacation in-place”?

Everyday humans encounter stressful events or situations that might be solved with the aid of a therapeutic environment, an environment that offers an escape from something that limits our freedom and threatens our well-being. Is it possible to create a psychological escape without the user being truly aware of it? Perhaps our minds are at work creating different feelings and emotions on a number of subconscious levels.

As designers we have the opportunity to create therapeutic environments. One way of creating such an environment might be through the use of color: “colorpeutics”. Colors have the ability to create different emotions within one’s mind. The psychology of color is complicated, but with the establishment of a set of guidelines, it can be simplified. Different color-coded systems are used to run our roadway systems (signs, stoplights, and car sirens and lights), artists color schemes (color wheel, hue chart), and “theatrical” palettes (color symbolism).

Designers have looked for ways to create an environment that improves our well-being, but healthy living has been overshadowed by personal values and the quest for success. As designers, we have numerous responsibilities, ranging from designing, marketing, construction documents, or legal documents. But let us not forget our most important responsibility: the users. Designs may become admired by labelization, publication, or even because of a famous designer, but what makes a building successful is the value and the impact it has on the users. Albert Einstein once said, “Try not to become a man of success, but rather try to become a man of value.” Merriam-Webster defines value as “how much something is worth”, and “a distinctive quality” (as of a color or sound). This is how we need to respond to our designs. Designing for success is important for survival, but if you design for value then success always follows. “Try not to create a building of success, but rather try to create a building of value.”

This project will focus around how color can be used poetically and organizationally to create therapeutic architecture, and how the application of color can incorporate the psychological affects of color.

“Thus while ‘color therapy’ is not a venerated term in medical literature, references to psychotherapy are becoming quite common. One would indeed be an iconoclast to reject color entirely. Color’s role in all forms of life is too evident to be either denied or ignored.”

_Chapter Psychology and Color Therapy by Faber Birren_

“One simple fact must be understood: color is essential for life, and its role goes much deeper than often realized.”

_Color, Environment, and Human Response by Frank H. Mahnke_

Matthew D. Sparling
Professor Bob Fisher
thesis studio instructor
Professor Lohren Deeg
faculty thesis advisor
Jim Schroeder
thesis consultant
Beth Wood
thesis consultant
THANKS

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**Professor Bob Fisher**
As you found out, I have come along way in the six years I have been here. When starting thesis year, I wanted to leave this college with no regrets, a successful thesis, and a year to remember. You made this possible with your wisdom, your jokes, and your yellow pieces of paper (by the way I framed them). I have never been more excited about architecture than I am right now. Thanks for a great year.
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What do people do when they become stressed at the workplace? Do they go for a walk? Do they go to lunch early? Do they take a vacation? A vacation does more than allow them to visit new places or visit family; it is an opportunity to improve one’s mental well-being. Merriam-Webster defines a vacation as “an extended period of rest from a routine physical environment,” and escape as “running away from something that limits one's freedom and threatens one's well-being.” Is there a way to create an environment that doesn’t require its occupant to need a vacation? If a vacation is a physical escape from an everyday surrounding, then therapeutics is a psychological escape. Therapeutics allows our mind to run from what limits our freedom and endangers our emotional well-being. Since our mind plays an important role on how we feel and behave within environments it seems appropriate to explore how we can use psychological mechanisms to create a space that could improve our well-being.

<table>
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<tr>
<th>Color</th>
<th>General appearance</th>
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<tr>
<td>Red</td>
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<td>Hot, fire, heat, blood</td>
<td>Danger, Christmas, Fourth of July, St. Valentine's, Mother's Day, flag</td>
<td>Passionate, exciting, fervid, active</td>
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<td>Orange</td>
<td>Bright, luminous, glowing</td>
<td>Warm, metallic, autumnal</td>
<td>Halloween, Thanksgiving</td>
<td>Jovial, lively, energetic, forceful</td>
<td>Hilarity, exuberance, satiety</td>
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<tr>
<td>Yellow</td>
<td>Sunny, incandescent, radiant</td>
<td>Sunlight</td>
<td>Caution</td>
<td>Cheerful, inspiring, vital, celestial</td>
<td>High spirit, health</td>
</tr>
<tr>
<td>Green</td>
<td>Clear, moist</td>
<td>Cool, nature, water</td>
<td>Clear, St. Patrick’s Day</td>
<td>Quieting, refreshing, peaceful, nascent</td>
<td>Ghastriness, disease, terror, guilt</td>
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<td>Blue</td>
<td>Transparent, wet</td>
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<td>Cool, mist, darkness, shadow</td>
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<td>Cool, snow</td>
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<td>Spatial—darkness</td>
<td>Neutral, night, emptiness</td>
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Psychological issues are divided up into numerous categories. But which category best fits architecture? Color psychology is easily related to architecture when it comes to materials and aesthetics. But are colors more than aesthetics? Colors have ways of triggering our thoughts and creating different moods and emotions. According to “Color Psychology and Color Therapy” by Faber Birren, a chart created of color associations was a way of simplifying and creating the idea of a universal approach to color psychology (Fig. 1.1). Psychological issues of color become difficult because human emotions and psychic make-up varies from one to the next; however, there are a number of universal emotions to color. Figure 1.2 shows a complex way of viewing colors because no boundaries exist, but figure 1.3 shows a more simplistic approach. Colors are associated with two simplified moods: the “warm, the active, and exciting” or the “cool, passive, and calming qualities.”
Color is an important tool in creating a therapeutic environment because of the certain emotions it creates in one's mind. Hues generate emotions as well, but instead of a specific emotion it creates a variety of emotion within one color. The existence of light is what creates hues (Figure 1.4).

The man in the images above is placing his hands out in front of himself as the colors are being changed on the wall in front of him. In Figure 2.1, his eyes are closed with his hands against the wall. In Figure 2.2, he places his hands on a red wall (Figure 2.3 - yellow, Figure 2.4 - green). Studying the pictures you can tell that the warmer the color the further apart the hands are placed on the wall, and the cooler the color the closer the hands are placed. 
Different color systems are used to create order and organization. The transportation system is color-coded through road signs, streetlights, and car sirens and lights to help motorists easily understand ordering system (figure 1.5). “Theatrical” palettes have been color-coded by William A. Wellman, red being vigorous, yellow being joy, green being health and abundance, blue being spirituality, brown being melancholy, gray of old age, and black of gloom. Artists also have a color system called the color wheel and hue chart. In figure 1.6, the artist Andy Warhol shows how the changing of colors can change the emotion of a person.

Establishing a therapeutic or architectonic coloring system would be a step forward in generating a design process that would be universal for all designers to use when creating a colorpeutic environment.
researchers say:

"Purple is the color for royalties. It stands for luxury, wealth, and sophistication. It is also the color of passion, romance and sensitivity."\(^{26}\)

"Purple is a rare color in nature. In ancient times, people used a certain species of shellfish to create purple dyes -- a meticulous process. Some people like purple decorations for its unusually posh and artistic look. To others, however, it just looks artificial."\(^{26}\)

viewer responses:

*Purple*:

"I love the color purple, cause it reminds me of royalty and it also is the color of some religious, and christian peoples, and it brings a sense of peace to me." ---Cindy\(^ {26}\)

*Purple*:

"Sexy, vulnerable, self-assured, self-indulgence and epitome of sensation." ---Brad\(^ {26}\)

*Purple*:

"Cocooned, comfortable, secure, protected, intimate, sensual, imaginative, ulterior." ---Alistair\(^ {26}\)
viewer responses:

Blue: “The color blue makes me feel clear. By this I mean that it clears my thoughts in a positive way and this makes me relaxed all over.” ---Frederic

Blue: “Sleepy and Calm.” ---Megan

Blue: “Thinking that I am in a room filled with this colour makes me feel a bit depressed and cold and makes me feel like I don’t want to be there. It is too dark and also a bit scary.” ---Sharon

researchers say:

“Blue represents solitude, sadness, depression, wisdom, trust and loyalty. Wearing blue to job interviews indicates dedication and loyalty.”

“Blue relaxes our nervous system. It has a sobering effect on the mind and can cause people to be more contemplative, which is the opposite reaction as red. Peaceful, tranquil blue, which is a good color for bedrooms, causes the body to produce calming chemicals. Darker shades of blue, however, can feel cold and depressing.”
researchers say:

“Green comes with many symbiotic meanings, among which, the strongest and the most universal is nature. Related to that, it also signifies life, youth, renewal, hope and vigor. Brides in the Middle Ages wore green to symbolize fertility.”

“Green is the easiest color on the eye and can improve vision. It is a calming color and has a neutral effect on the human nervous system. The “green rooms” are designed for people who are waiting to appear on TV to sit and relax. Green is also a popular color in hospitals because it relaxes patients.”

viewer responses:

Green: “The colour green just makes me feel happy, optimistic, and connected with the earth.” ---FREERK

Green: “Green in one of my favorite colors, it makes me feel free and that I can do anything I want to do, I feel just like wallowing in it.” ---Cindy

Green: “It makes me feel alive, bright, tense and trapped cool, fresh and a need to breathe.” ---Kribby
viewer responses:
Yellow: “Happy and Energized.” ---Megan

Yellow: “Should be used only as an accent color. The brightness of the shade makes me feel dizzy, it is too overwhelming. I prefer more pastel-ish shades of yellow.” ---Blakerz

Yellow: “I feel hugged, loved, warm all over...excited, encouraged, forward-looking.” ---Ali

researchers say:
“Yellow, when used in small amount, produces sensations of brightness and warmth. It represents playfulness, light, creativity, warmth and an easygoing attitude toward life. It is as inviting as a warm, sunny day.”

“Yellow is like sunlight -- you want it to be there to feel good, but you don’t want it to be ‘in your eye’.”

“Yellow, the cheerful sunny yellow, is an attention getter. It is the most visible color of all the colors, it is the number one attention getter.”
researchers say:
“Orange is associated with warmth, contentment, fruitfulness and wholesomeness. It looks strong and generous.”

“Orange is the color most associated with appetite.”

“Orange has a declassifying, broad appeal. It can be used to indicate that a product is suitable for everyone, and can make an expensive product seem more affordable.”

viewer responses:
Orange: “Well, I’m getting nothing here. Just ok.” ---Evelyn

Orange: “Hungry.” ---Jane

Orange: “It makes me feel happy, warm, awake. It makes me want to socialize!” ---Lori

Orange: “Renewal” ---Rob

Orange: “Makes me feel happier and carefree.” ---tij
viewer responses:

*Red*: “Well, red seems like either an elegant color, or a bright energetic color, depending on the shade of red. Red makes me feel happy, at ease, it increases my awareness. It definitely isn’t a calm, cool color, but I like it still.” ---Blakerz

*Red*: “If this were a room, I’d feel jazzed just walking in the door. My pulse quickens and I’m ready to tackle anything! Stay in there long enough, though, and I’d be worn out pretty soon.” ---Becca

*Red*: “Aggressive” ---Kenji

researchers say:

*Red* symbolizes heat, fire, blood, passion, love, warmth, power, excitement and aggression. It can elevate blood pressure and respiratory rate. It has the effect of stimulating people to make quick decisions and increase expectations.”

“Red is an attention grabber. Words and objects in red get people’s attention immediately. In decorating and design, red items should be perfect since it will attract attention. When it comes to cars, there is a positive correlation between the color red and theft rate.”
A balance of color is important because the overuse of one color will prove to be distressing. The users may become unbalanced, uncomfortable, or distracted from his or her tasks within the environment. When applying color artistically and tastefully it can improve the user’s well-being. The gumball machine above holds a large number of white gumballs and three other colored gumballs. This balance of color will not encourage users to pick this machine. The machine, being the designer, needs to consider the users in order to create a healthier community. Psychologically, the balance of color allows order and structure to eliminate chaos and distress. “Each of us belongs to the same universe that is in a natural state of balance.”

Color identity creates a mapping system, brings attention to spaces or objects, changes structure, and improves pleasure and enjoyment. Color can modify the way shapes and forms appear and change the identity of the building or space. The gumball machine above symbolizes the layers of a building. The layers of gum represent a system of identity much like the floor plans of the Ball State architecture building. The users of the gumball machine can identify what color of gumball is next to fall, and the users of a building can identify what floor they are located. Psychologically, color identity becomes a great way to create order, direction, and place.
EMOTION.

Color emotion consists of the unconscious, subconscious, and an experience that is connected to human behavior. Human emotions to the environment, to color, and color combinations are psychological, but they can result in physiological emotions. Through the evolvement of humankind, inherited color emotion can’t be escaped or controlled. “One simple fact must be understood: Color is essential for life and its role goes much deeper than is often realized.”

_Faber Birren

Where the use of color relates to human comfort and well being, color may have no great intrinsic value unless it is tastefully and artistically employed.”

_Faber Birren

Color can radically alter the way forms appear and wholly change the character of rooms and buildings.”

_William W. Braham

Through our evolutionary development as species we have inherited reactions to color that we cannot control, that we cannot objectively explain, and that we cannot escape. Color is a part of our psychological and biological heritage. One simple fact must be understood: color is essential for life, and its role goes much deeper than is often realized.”

_Frank H. Mahnke

HEALTH CENTER GUIDELINES:

1) First impressions - disguise institutional appearances, first impressions are most critical when entering a healthcare facility.

2) Public/private - The transformation from public to private spaces. The public spaces will have to use a more generalized reaction to color; however the private spaces will be more flexible to fit the personal color preferences.

3) Color treatment - begin a therapeutic experience while user approaches the site.
existing health center hidden behind trees
The thesis project is Ball State’s health center located approximately 50 miles northeast of Indianapolis in Muncie, IN, and will focus primarily on the idea of creating a colorpeutic environment. The existing health center is directly east of Irving Gym (north off of Neely Avenue). The health center is on the edge of the campus across from residential living, Irving Gym, and Worthen Arena. The existing health center is set back off of Neely Avenue, hidden by a line of trees. Currently the students of the university are not well-served by the health center. A health center should engage the campus and offer nourishment, much like parents do for their children. Today, the health center’s isolation from campus increases the issues of negativity in healthcare. Healthcare itself has problems of creating a positive environment because of the negative association people make of a medical facility. The image of the health center can be improved by incorporating functions and aspects that are not about curing the ill, but about improving well-being. Focusing on color psychology, the new health center will create a therapeutic space for students. The primary users of the health center are the students of Ball State, but with the adjacency of a health spa it would allow a positive function to be associated with a healthcare facility.
LOWER LEVEL W/ MECH. FLOW

GRAPHIC SCALE: 1/32" = 1'-0"
SECOND FLOOR PLAN

GRAPHIC SCALE: 1/32" = 1'-0"
Reflections

Colorpeutics has potential of becoming a way of design. Enough research has been done to prove that people are affected by the use of color, but the issue of applying color is an even greater problem. People follow a roadway system of color, so why can’t designers follow a design system of color. The idea of “one size fits all” is nearly impossible, but if there is a way to create a color system for architects to follow then the idea of healthy living could be taken to a whole new level. In order for this to happen, guidelines or rules need to be established (much like the rules of the roadway) that designers could follow. The design guidelines I established of balance, identity, and emotion is a start, but further development and guidelines need to be set on how to apply them into design. Color can be used to artistically sculpt a building, to organize spaces functionally, and to create emotion controlled spaces.
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26www.psychology.about.com

27http://en.thinkexist.com/quotations/

**FIGURE NOTES:**

Figure 1.1_Birren, Faber.  *Color Psychology and Color Therapy*.  New York:  University Books, Inc., 1961.

Figure 1.2_ [http://www.ulead.com](http://www.ulead.com)

Figure 1.3_ [http://www.ulead.com](http://www.ulead.com)

Figure 1.4_ [http://astronomy.swin.edu](http://astronomy.swin.edu)

Figure 1.5_ [http://www.co.ha.md.us](http://www.co.ha.md.us)

Figure 1.6_ [http://www.cvm.qc.ca](http://www.cvm.qc.ca)

Figure 2.1_Birren, Faber.  *Color Psychology and Color Therapy*.  New York:  University Books, Inc., 1961.

Figure 2.2_Birren, Faber.  *Color Psychology and Color Therapy*.  New York:  University Books, Inc., 1961.

Figure 2.3_Birren, Faber.  *Color Psychology and Color Therapy*.  New York:  University Books, Inc., 1961.

Figure 2.4_Birren, Faber.  *Color Psychology and Color Therapy*.  New York:  University Books, Inc., 1961.