Play and The Discovery of New Ideas

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By

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Dedication

The work on these pages is the result of more than my two years of study at the Savannah College of Art and Design. It is the continuation of a lifetime of love and play. I dedicate this work to the loving memory of my Aunt, Charlotte Benjamin, a wonderful woman and an artist whose inspiration led me to become an artist. I will always cherish the moments we shared when I was young. I showed and explained to her the eccentricities of my newest toys or a piece of art I had done in school. I will always remember how carefully she listened, laughed, and shared in my play. I will always remember her with love. This is for her.

Thesis Abstract

Play and The Discovery of New Ideas researches and analyzes how the act of play can free the mind to make new discoveries and conceptual reconnections that lead to the development of new ideas. This work looks into the stages of the creative process and how the introduction of play at the right moment of the creative process drives the creative process further. The study of play in this thesis looks into the varying possible play personalities that we all can take part in and the types of play in which we participate. By knowing what types of play exist we can use them to cultivate our personal creative process.

The aim of graphic design as a form of communication in today's visually literate society is to inform, educate or persuade the viewer and in doing so motivate them to either take some form of action, change behavioral patterns or previously held beliefs; or to reinforce some form of existing action, behavioral pattern or belief system. Effective communicators are those capable of bridging unexpected and often unforeseen connections between people and the world around them. They do this with ideas. The word idea comes from the Greek ide-, meaning *to see*, and –a, meaning *ending.*[1] An idea is just that, to see an ending, to gain a conceptual understanding in the mind as the result of awareness or activity. A definition may make something more tangible in the mind but it still does not provide an answer as to where ideas come from. Insight, creativity and discovery perform essential roles in birth of new ideas, but they are also indicative of the act of play. I seek to demonstrate that play, with the right tools, can free the mind to make new discoveries and connections that will drive the conceptual process beyond the realm of aesthetics and bring about profound links between a communication and its audience. Plato may have stated, "you can discover more about a person in an hour of play than in a year of conversation"[2] but I believe through play one can discover more not just about a person, but about *anything*.

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[1] Dictionary.com, "idea definition | Dictionary.com," Dictionary.com, http://dictionary.reference.com/browse/idea (accessed May 6, 2009).

[2] Plato, "Play quotes," Find the famous quotes you need, ThinkExist.com, http://thinkexist.com/quotations/play (accessed March 27, 2009).

The Creative Process

In a search for the creation of new ideas it is essential to explore the creative process itself to find where it is that ideas come from. I believe it is derived in many respects from play. According to authors Allen Hurlburt (*The Design Concept*, 1981) and Mihaly Csikszentmihalyi (*Creativity*, 1996), the creative process can be broken down into four parts, which are, Analysis, Incubation, Insight and Evaluation. Both authors had different terms for the stages of the creative process, save one, Incubation, which is where the act of play comes in. The creative process can seem to be an esoteric and mysterious realm in which ideas just happen. As Michael Bierut author of "This is My Process" states, "When I do a design project, I begin by listening carefully to you as you talk about your problem and read whatever background material I can find that relates to the issues you face. If you're lucky, I have also accidentally acquired some first hand experience with your situation. Somewhere along the way an idea for the design pops into my head out of the blue. I can't really explain that part; it's like magic."[3]

If the creative process is anything, it is not magic. It is a state of mental processes taken in by the creative mind that make new connections and discoveries and in turn new ideas. It should of course be stated that the creative process is not like that of what we call the logical process, where answers are arrived at through step-by-step linear process in that one correct move is taken and then the next, much in the same way as solving a

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3 Michael Bierut, "This is My Process," Design Observer, http://designobserver.com/archives/entry.html?id=17485 (accessed November 2, 2008).

mathematical problem. The creative process has several different and varying avenues it may take in its meandering path through the conscious and unconscious portions of our mind. That may be the reason why the creative process seems to be so esoteric, mysterious and even "magic." It may not be possible to map an exact course of the creative process. That is why so many people can face the same issue and have different interpretations of it. We can, however, see a general overview of the process, beginning with what Michael Bierut states as his own beginning, in acquiring information that relates to the question or problem we seek to answer. As a first stage in the creative process this would be called Analysis.

The Analysis Stage

Analysis is the beginning stage of any project in which the creative process is used to create an answer, a new connection, or a new discovery and in turn a new idea. This stage can also be referred to, by some, as the research stage, but it is more than merely reading a creative brief to find out what is needed to fulfill the requirements of a given project. This stage deals with the conscious absorption of any information related to the project. Information about a project may be given to a designer in a creative brief but other avenues may be explored through their own sense of curiosity. The more knowledge the designer has may not make the project better but it can give greater opportunities for the creation of new connections and discoveries in the following stages of the creative process.

The Incubation Stage

The second stage of the creative process is that of Incubation. It is during this stage of the creative process that the information absorbed consciously during the Analysis stage now becomes part of the "whole" of our unconscious minds. The mind is a powerful tool and the information that we have stored within it can be figuratively described as being the totality of our entire universe, it is everything we know; some of this knowledge we remember consciously, while information that we may have thought of as forgotten is brought back to the conscious mind when something triggers our memory. When we seek to solve a problem logically we follow a linear fashion of thinking but once a problem makes its way into our unconscious, our minds begin to process it in an entirely different fashion. In his book *Creativity,* Mihaly Csikszentmihalyi states, "Cognitive accounts of what happens during incubation assume, like the psychoanalytic ones, that some kind of information processing keeps going on in the mind even when we are not aware of it, even when we are asleep." He goes on to say, "Cognitive theorists believe that ideas, when deprived of conscious direction, follow simple laws of association. They combine more or less randomly, although seemingly irrelevant associations between ideas may occur as a result of a prior connection."[4] The amount of time that the mind takes to make a connection varies greatly on the amount of information or the rate in which an individual's mind makes new connections. As Michael Bierut stated, "If you're lucky, I have also

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[4] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (New York: Harper Perennial, 1997), 101.

accidentally acquired some first hand experience with your situation."[5] The additional experience or knowledge makes creating new connections easier because as Malcolm Gladwell says in *Blink*, "We make connections much more quickly between pairs of ideas that are already related in our minds than we do between ideas that are unfamiliar to us."[6]

The Insight Stage

The stage of Incubation leads into that of Insight, but insight only takes place when a flash of intuition has occurred, the quintessential "AHA" moment. This is why we feel and think that possibly the transition from the Incubation stage to that of Insight may just be magic. The process of connection is esoteric and mysterious. It is in that moment of discovery that intuition occurs. In *The Rise of Research in Graphic Design,* Audrey Bennett writes, "Intuition–defined by Paul Rand as a flash of insight conditioned by experience, culture and imagination–is invaluable to a graphic designer."[7] A new connection has taken place, something that had not been consciously thought of before. It has risen out of the murky depths of the unconscious to be revealed to us by the inner machinations of our minds and left us crying "Eureka." However, we don't always need to wait for that flash

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[5] Michael Bierut, "This is My Process," Design Observer, http://designobserver.com/archives/entry.html?id=17485 (accessed November 2, 2008).

[6] Malcolm Gladwell, *Blink: The Power of Thinking Without Thinking* (London: Little, Brown and Company, 2005), 77.

[7] Audrey Bennett, "The Rise of Research in Graphic Design," in *Design Studies: Theory and Research in Graphic Design*, ed. Audrey Bennett (New York: Princeton Architectural Press, 2006), 15.

of insight, for the mind to make new connections; we can stimulate the unconscious to come forward into the conscious mind, in bits and pieces, through the act of play.

Play (What is it Good For?)

In the simple act of play we can discover new ideas, emotions, reactions and inspirations. We ask "what if?" and think passing thoughts such as "that's funny." Almost everyone from every walk of life can remember some of the most basic concepts and ideas from childhood to adulthood that were invariably arrived at through the act of play. But what exactly is play? It is in the quest to discover what play is that lead me to Stuart Brown, M.D. Trained in general and internal medicines, psychiatry and clinical research, Stuart Brown has been studying play for decades and established The National Institute of Play in California. He recently published the book *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul.* It is from Brown's research, as well as my own observations that we will explore what play is, why it is that we play, how we play and the results of play.

What is play? Although many if not all walks of life understand the premise or basic concept of play, how do we begin to define it in a framework for study? Stuart Brown offers us a framework for the establishment of play that was devised by Scott Eberle, an intellectual historian of play and vice president for interpretation at the Strong National Museum of Play in Rochester, New York. Eberle, as well as, Brown, believe that people

pass through a six-step process as they play, however not everyone goes through these steps in the same fashion or even order. Eberle says that play involves:

> Anticipation, waiting with expectation, wondering what will happen, curiosity, a little anxiety, perhaps because there is a slight uncertainty or risk involved, although the risk cannot be so great that it overwhelms the fun. This leads to…
>
> Surprise, the unexpected, a discovery, a new sensation, or idea, or shifting perspective. This produces…
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> Pleasure, a good feeling, like the pleasure we feel at the unexpected twist in the punch line of a good joke. Next we have…
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> Understanding, the acquisition of new knowledge, a synthesizing of distinct and separate concepts, an incorporation of ideas that were previously foreign, leading to…
>
> Strength, the mastery that comes from constructive experience and understanding, the empowerment of coming through a scary experience unscathed, of knowing more about how the world works. Ultimately, this results in…
>
> Poise, grace, contentment, composure, and a sense of balance in life.
>
> Eberle diagrams this as a wheel. Once we reach poise, we are ready to go to a new source of anticipation, starting the ride all over again.[8]

Eberle's framework begins to give us a foundation on which to understand what play is as we explore the states that the mind passes through while we play. Although I find this framework to be concise to the mental and emotional states of the person at play it does leave one wondering if this can be all there is to play. Much in the same way that we could scientifically dissect play and mathematically weight each of it's parts and have no greater understanding of it because it is an ephemeral concept at best. In the act of discovery, why and how we play can begin to grant us a greater understanding of what play truly is.

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[8] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

Why Play?

In his own words Brown states we play because, "Play provides freedom from time. We stop thinking about the fact that we are thinking. In imaginative play, we can even be a different self. We are fully in the moment, in the zone. We are experiencing what the psychologist Mihaly Csikszentmihalyi calls flow."[9] Csikszentmihalyi's "flow" is the mental state we achieve when we are fully immersed in what we are doing and in a supercollider fashion, become energized by the genuinely satisfying state of consciousness we have achieved.[10] This freedom gives us the ability to do anything; we are not hampered by time, place, space, social level, intelligence, etc. In these moments of freedom we can be anything. This began with each and every one of us as children.

The beginning moments of any child's life is the discovery of the world around them, the interpretation of fact and fiction to understand what is right, what is wrong, what is up and what is down. But in the state of play the child is free to have fresh insights and discovery because there is no wrong way in which to proceed, there is no fear of error. This state of freedom passes from childhood into adulthood. Many people pass their time day dreaming or even preparing for a busy meeting by internally visualizing what they will say; these are all states of play. This is the focus of Harvard Business School professor Rob Austin and Swathmore College theater professor Lee Devin's book *Artful Making: What*

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[9] Ibid

[10] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (New York: Harper Perennial, 1997).

Managers Need to Know About How Artists Work. In writing about the book Michael

Bierut states, "They are careful to identify the defining characteristics of this kind of work:

allowing solutions to emerge in a process of iteration, rather than trying to get everything

right the first time; accepting the lack of control in the process; and creating a work

environment that sets clear enough limits that people can play securely within them."[11]

In his book *Play,* Brown states, "Another hallmark of play is that it has improvisational

potential. We aren't locked into a rigid way of doing things. We are open to serendipity,

to chance. We are willing to include seemingly irrelevant elements into our play. The act

of play itself may be outside of "normal" activities. The result is that we stumble upon

new behaviors, thoughts, strategies, movements, or ways of being. We see things in a

different way and have fresh insights."[12] We play because it sets us free to realize and learn

new ideas to have epiphanies and discoveries. It is in the act of play that a person thinks

"what if?" It is in that moment that the individual begins to act either internally by

theorizing what would happen if they were to do such a thing or even act externally in

order to see what results from an act. Graphic designer, author and Critic at Yale School

of Art, Jessica Helfand states in her article *The Art of Thinking Through Making*, "…the

dialogue between the maker and the thing is something quite different: there's a kind of

blind faith, an anti-discipline at work in which the process of discovery is fueled less by

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[11] Michael Bierut, "This is My Process," Design Observer,
http://designobserver.com/archives/entry.html?id=17485 (accessed November 2, 2008).

[12] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

what than by what if? What if you turned it upside down? What if you switched

materials? What if you shut out the noise that smacks of responsible conclusions and

replace it with loopy questions, fragmented notions, implausible fictions?"[13] In this

simple act of asking "what if?" we begin to follow Eberle's framework.

Brown's research has also passed into a broader scope and looks into the why of play in

the animal kingdom. The author spent some time working with John Byers, an animal

play scholar whose research has detailed the correlation of animal brain size with the

degree of playfulness of the animal itself. Brown states, "Byers speculates that during play,

the brain is making sense of itself through simulation and testing. Play activity is actually

helping sculpt the brain. In play, most of the time we are able to try out things without

threatening our physical or emotional well-being. We are safe precisely because we are just

playing."[14] In this we are creating new synaptic connections, making new discoveries that

make sense between disparate parts of the brain and it's stored knowledge of the world.

In the act of play we find what works and doesn't work and this happens more freely

because of the freedom from threats to our physical or emotional states of being.

In a physical sense we play to see something new, with paper and pen we see how

something looks when making a mark be it a drawing or writing. Drawing thumbnails for

a design is in itself an act of play. We play to see how something feels, smells, tastes or

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[13] Jessica Helfand, "The Art of Thinking Through Making," Design Observer,
http://designobserver.com/archives/entry.html?id=13819 (accessed March 28, 2009).

[14] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

sounds, and whether it is something we like or dislike. It is in the act of play that we discover the world around us in our interaction with the world. Stuart Brown writes, "The genius of play it that, in playing, we create imaginative new cognitive combinations. And in creating those novel combinations, we find what works."[15] Play is the act from which we build and structure our own brains. Brown states, "Play, which is more prevalent during periods of most rapid brain development after birth (childhood), seems to continue the process of neural evolution, taking it even one step farther. Play also promotes the creation of new connections that didn't exist before, new connections between neurons and between disparate brain centers. It is activated from and organizes what I call "divinely superfluous neurons." These are neural connections that don't seem to have an immediate function but when fired up by play are, in fact, essential to continued brain organization."[16]

Play begets a smarter and more knowledgeable person, but it is also the smarter more knowledgeable person who plays. Brown also believes as I do that the impulse to create art is the result of play. Art and culture have often been seen as a by-product of humanity, something that just happens as we use our brains, but newer thinking has proposed that art and culture are something that are created by the brain actively because it benefits us and arises out of our primitive and childlike desire to play. Brown likens this state of desire to play and create to "…the famous children's book *Harold and the Purple Crayon*,

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[15] Ibid

[16] Ibid

about a boy who creates his own world and gets in and out of scrapes by drawing lines on the blank book pages."[17] Why do we play? We play simply because it is how we learn, discover and create the world around us.

Personalities of Play

Even though having a better sense of what play is and why it is that we play brings us a greater understanding of play it is in how we play that we can find an even wider scope of comprehending the overall concept of play. Stuart Brown has separated the how of play first into what he calls Play Personalities. By discerning the different personalities of players we can begin to find out how it is that we play everyday and by knowing our own play personality we can achieve greater access to our ability to play.

The first of Brown's play personalities is that of The Joker, which he sees as the most basic and extreme throughout history. The Joker's play revolves around nonsense; it is one of the first types of human play we engage in since all baby talk begins with nonsense. The nonsensical babble that babies make is their work at discovering sounds and playing to structure them in to coherent language. They mimic what is said to them but are not always capable of structuring the sounds correctly, however, it does not limit them because they are playing and feel the freedom to create whatever sounds they may make as

[17] Ibid

they work towards development of vocal language. The Joker is not only found in the nonsense of baby talk but also among practical jokers and class clowns that find social acceptance by making other people laugh. It is often said that laughter is the best medicine, but it is also the easiest way to play.

The second play personality is The Kinesthetic. These are the people who like to move. Every one of us has met a person that is more at home when they are moving around, sometimes these individuals become dancers or sports stars, but they can even be as simple as someone that seems to need to gesture while they speak. These individuals can be seen to come more alive when they are moving whether, to the sound of music playing or even in their own speech. I have also found many people that feel they think better when pacing, exercising or just going for walks. It is in these acts of motion that we access varying levels of kinesthetic play.

The third personality is The Explorer. Exploring may be physical in going to new places but can also be emotional in a searching for a new feeling or an exploration of what is already familiar through music, movement or even banter. The Explorer can also be a mental explorer in that they find their play through learning a new subject or discovering new points of view. This drive to explore can be seen as one of the major components of places such as The Media Lab at MIT. The Media Lab seeks to cross disciplines of product design, nanotechnologies, researchers, computer interface design and computer programming through explorer play to find new avenues and discoveries in the design fields.

The Competitor is the fourth play personality. This is the person who finds their greatest sense of joy and creativity of play by competition in a game and they enjoy playing to win. Individuals that engage in the competitor play personality will drive themselves further and farther by being able to rival with others, or even in competing against themselves. The initial development of the Macintosh division of the Apple Company by Steve Jobs was to have competing groups of designers in order to push them to higher forms of performance through the act of play. In Catherine Fishel's book *How to Grow as a Graphic Designer*, she writes about Mr. Jeff Keedy, "That's what led him to type design. He had had the opportunity to create type in past projects, but those incidents were satellites to the project itself. What he soon discovered was that typeface design was very challenging, and he wasn't very good at it. He started to compete with himself to do better, and the reward would return to his work when he bettered a single letter or found a new solution."[18]

The Director is the fifth play personality and enjoys executing and planning scenes and events. Their play comes from the joy of organizing, whether it is a trip to an amusement park with friends or family or being the socialite at the center of their social world.

The sixth play personality is The Collector who finds their thrill in collecting; they will be the people who have to have the most, the best, the newest or the most interesting collection of objects or experiences.

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[18] Catharine Fishel, "Monitoring Your Progress: Jeff Keedy, Ciphertype," in *How to Grow as a Graphic Designer*, ed. Catharine Fishel (New York: Allworth Press, 2005) 134.

The Artist/Creator makes up Brown's seventh play personality. The joy of The Artist/Creator is in the simple act of making things. Whether it is to make something new, beautiful, functional, or goofy. Or just a person who enjoys taking something apart and fixing it, replacing parts and having the power to put it back together in perfect working order. Many artists and designers may think of the artist/creator as their primary play personality just because it is what they do but it is important to note that anyone can be more than one play personality. After all, the more you know how to play the more creative you can be.

The eighth and last play personality that Brown suggests is that of The Storyteller. For the storyteller the imagination is the key to play. They can be novelists, playwrights, cartoonists, screenwriters, or game masters of role-playing games but they are also the people whose sense of play is stimulated through the reading of novels and watching of movies. They are the people who desire to make themselves part of the story by vicariously experiencing the events through the thoughts and emotions of the characters. It is noted that even famous film director and screenwriter Steven Spielberg is a devoted movie fan who not only enjoys making movies but also sees almost every film he can.[19]

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[19] Wikipedia, "Steven Spielberg," Wikipedia, the free encyclopedia, http://en.wikipedia.org/wiki/Steven_Spielberg (accessed March 28, 2009).

Types of Play

Brown does not leave the study of how we play to merely categorizing the players but also goes on to explore the types of play in which we all participate. Play is the most important part of life because as Brown states, "When we stop playing, we stop developing, and when that happens, the laws of entropy take over–things fall apart."[20]

Brown's first type of play is what we all begin with in life it is that of Body and Movement Play. Movement is the beginning of life and accompanies all forms of play; even word and image movement is a form of play. Almost all graphic designers use word and image movement in play to create metaphor, metonymy and antithesis in visual communication. It is in movement that we begin to understand the world through space, time and our relationship to other parts of the world. All of our five senses are based in the world of Body and Movement Play. It is the how to the why in which we play, it is through our body and movement and the play in which we find a greater comprehension of the world that we learn, innovate, and create.

Brown's second type of play is that of Object Play. It is through our own curiosity that we begin to manipulate the objects around us, object play is how we set about interacting with the world that we set in motion through body and movement play. It is through the manipulation of objects in play that we begin making marks with pencils and crayons on paper, stack wooden blocks to create structures, or learn to build castles out of sand.

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[20] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

Brown states, "…object play with the hands creates a brain that is better suited for understanding and solving problems of all sorts."[21] It is in this area of play that many may say that they think with their hands. This is the basis of Rudolf Arnheim's essay *Sketching and the Psychology of Design.* Arnheim states, "The sketches done for the eyes and directed by them, make some of the design plans visible. They not only supply the designer with tangible images of what his or her mind is trying out in the dimness of its own freedom, but they also permit the observer or theorist to catch a few stop-motion glimpses of the flow of creation."[22]

The third type of play designated by Brown is Imaginative Play. The imagination is by far is the most powerful ability of the human mind. Our ability to imagine knows no boundaries and allows our minds to create and explore simulated realities in which to discovery unlimited possibilities. Brown states, "…close examination of adult stream of consciousness demonstrates that the pretend-real process is a lifelong aspect of human thought. We continually make up story lines in our heads to keep the past, present, and future in context."[23] It is the human imagination that is the key to all play, the instigator to our playful actions and remains key to our creativity. Our imagination can shape our world and how we see ourselves in our world. A friend once shared with me that it took

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[21] Ibid

[22] Rudolf Arnheim, "Sketching and the Psychology of Design," in *The Idea of Design*, ed. by Victor Margolin and Richard Buchanan (Cambridge: The MIT Press, 1996), 74.

[23] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

him several years working in the field of graphic design after graduating from college with

a degree in graphic design to think of himself as a graphic designer. I told him that I had

realized that when graduating from my own undergraduate pursuits that I had the same

feeling but my imagination rose to the challenge in creating a title that for me I found

myself more at ease with. I called myself a creative professional. As Mr. Jeff Keedy himself

states, "As a creative individual, you need a certain amount of time to think creatively.

You have to have day dreaming time and time to follow your bliss."[24]

The fourth type of play is that of Social Play. Ranging from the simplest interaction of

an adult and a baby in a game of peek-a-boo to the formal interaction of a dance, social

play is the basic fundamental building block of human social behavior. It is through the

various stages of growth and the ways in which we socially play that we discover

friendship, love, acceptance, trust and belonging. It is this type of play that led Stuart

Brown into his research of play since he first recognized the absence of social play from the

lives of murders and felony drunk drivers. Brown has further subdivided the Social Play

type into three discernable subtypes: friendship and belonging, rough-and-tumble play,

and celebratory and ritual play.

Friendship and belonging hold all the aspects of the social play of children as their

individual form of play as infants begins to branch out into mutual play that includes the

children around them. Brown states, "This mutual play is the basic state of friendship that

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[24] Catharine Fishel, "Monitoring Your Progress: Jeff Keedy, Ciphertype," In *How to Grow as a Graphic Designer*, ed. by Catharine Fishel (New York: Allworth Press, 2005), 134-135.

operates throughout our lives."[25] This is something I have found can also be apparent in the early lives of individuals who are good at working in groups and on teams.

According to Brown rough-and-tumble play, "…is generally defined as friendly or play-fighting and may be extended more broadly to any active play that includes body contact among children."[26] Although I would also include non-physical rough-and-tumble play such as the friendly teasing and banter that many friends and family share, it is also note worthy that rough-and-tumble play is also something that almost all animals share, as well as, human beings of all ages. If we were to take a walk past a local dog park we would see an excellent example of rough-and-tumble play as the dogs run, jump and tackle each other. In the act of play they never raise their hackles nor bare their teeth to one another because they all agree that this is just play. From children playing tag to adult professional football players the aspect of rough-and-tumble play is a level of social play that can be just as fun to watch, as it is to engage in.

The third subtype of social play is celebratory and ritual play. Celebratory and ritual play can include anything from a birthday party to a formal dance, from a holiday with friends or family to the reception after a wedding. We desire play at all levels of life and in the hustle-and-bustle and high responsibility level of adulthood we will incorporate play

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[25] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

[26] Ibid

into our lives through celebratory and ritual play. What else do you think a holiday party is, but a reason to play?

The fifth type of play is Storytelling and Narrative Play. Brown states, "Stories remain central to understanding well after childhood. When people make judgments about right and wrong, even in politics or the jury box, they often do so as a result of a story that they construct about events that have happened."[27] Storytelling and narrative play need not be on the side of being the storyteller but also the audience, it is the type of play we take part in while watching a movie, theatre act, or live music. It is also important to remember that even as children we all took part in narrative play, constructing stories of action and daring, love and romance, or even everyday life with toy soldiers, action figures, dolls and toys of all shapes and sizes. It is in our narrative play that we begin to understand the constructs of past, present and future. Narrative play can also take the form of role-playing, which can be used as a source of inspiration for graphic designers. In the essay *Impact: Inspiring Graphic Design through Human Behaviors* the authors from the IDEO Corporation write, "An example of this process can be illustrated with the opportunity to improve the patient experience at a hospital. In contextual observation, one spends time at hospitals, looking and listening, interviewing patients and staff. With hospital consent,

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[27] Ibid

the designer may role-play as an actual patient to recognize more closely what a patient experience may feel like. The resulting finds can inspire design."[28]

Transformative-Integrative and Creative Play makes up the sixth and final type of play in which we take part. Stuart Brown states, "When we engage in fantasy play at any age, we bend the reality of our ordinary lives, and in the process germinate new ideas and ways of being."[29] Children who are growing, and learning as they do are always in the process of transformative play in their process of changing and becoming. Children cultivate curiosity and interest, and in turn use it to fuel their own transformative-integrative and creative forms of play. In his book *Creativity,* psychologist Mihaly Csikszentmihalyi points out, "On this score, children tend to have the advantage over adults; their curiosity is like a constant beam that highlights and invests with interest anything within range. The object need not be useful, attractive, or precious; as long as it is mysterious it is worthy of attention."[30] It is in our curiosity, wonder and interest of what makes up our world and how it works that we recognize an interesting problem. It is the openness of creative play that helps us to process events and realize potential novelty in answering such problems. In *Play,* Brown writes, "For adults, daydreams may give rise to new ways of doing

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[28] Roshi Givechi, Ian Groulx and Marc Woollard, "Impact: Inspiring Graphic Design through Human Behaviors," in *Design Studies: Theory and Research in Graphic Design*, ed. Audrey Bennett (New York: Princeton Architectural Press, 2006), 307.

[29] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

[30] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (New York: Harper Perennial, 1997), 346.

business. Fantasies may lead to new love. Visualization may lead to a remodeled house or a new invention. Creative play takes our minds to places we have never been, pioneering new paths that the real world can follow."[31] It is this side of play that hallmarks the arts and culture, as we combine and reconnect ideas through play to discover previously untouched territories of our imagination. As Brown states, "…like when a lighthearted group of designers from the IDEO Corporation wildly imagine all the ways they can create an indoor dog-exercising machine. In each case, they are using their playfulness to innovate and create."[32]

The results of play come from our interaction with our involvement in the world around us, but it also expresses our needs and desires as the players. Brown writes, "It emerges from the imaginative force within. That's part of the adaptive power of play: with a pinch of pleasure, it integrates our deep physiological, emotional and cognitive capacities."[33] Play can help us to be able to handle problems, provides us with the ability to see our unlimited potential, and is essential to the creative process. It helps us in creating new mental connections and for adapting to cognitive difficulties. With play we create new patterns, new relationships, new connections that once may have seemed obtuse, unrelated or even inappropriate. Play loosens the barriers that we construct between concepts and constructs of reality and opens our minds to a realm of limitless

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[31] Stuart Brown M.D., and Chris Vaughan, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (New York: Avery, 2009).

[32] Ibid

[33] Ibid

potential. Brown states, "Even demolition or sand castle smashing is a kind of creativity. Since they clear the landscape. Opening the way for a new building."[34]

Play and the Creative Process

An example of the merging of the creative process and the act of play can be found in *divergent* thinking. In *Creativity,* Mihaly Csikszentmihalyi writes, "Divergent thinking leads to no agreed-upon solution. It involves fluency, or the ability to generate a great quantity of ideas; flexibility, or the ability to switch from one perspective to another; and originality in picking unusual associations of ideas."[35] Divergent thinking captures the improvisation, serendipity and chance of play and incorporates it into the creative process. Edward de Bono's *Lateral Thinking* is a primary example of a form of divergent thinking. De Bono sought to show that "The most effective way of changing ideas is not from outside by conflict but from within by the insight rearrangement of available information."[36] The memory of the mind is made up of a pattern of concepts, ideas, thoughts and images, and by restructuring these patterns we create new ideas. Now, consciously doing this on an unconscious level may be impossible but taking some of these

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[34] Ibid

[35] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (New York: Harper Perennial, 1997), 60.

[36] Edward de Bono, *Lateral Thinking: Creativity Step by Step (Perennial Library)* (Brattleboro: Harper Paperbacks, 1973), 9-10.

concepts, ideas, thoughts and images outside of the mind and being able to rearrange them through the act of play is possible.

The *Creative Blocks* (Fig. 1) consist of 24 wooden blocks on which each of the six sides a descriptive word has been burned. The blocks are used through the act of play to allow the user to move away from the problem at hand and begin to create new connections in their thinking through the rearrangement of the available information. The individual can playfully rearrange them, either on purpose or in a completely random manner in order to create new arrangements of information, to connect ideas, thoughts and concepts that we may readily dismiss because our conscious minds don't see the connection until they are together. The newly arrived at connection can be seen in relation to a design problem in how the information relates to the problem itself or in how the rearranged information either relates or does not relate to each other. In this connection or even disconnection we can begin to look for new perspectives to view the design problem and stimulate the transition to the stage of Insight.

Here is an example of this transition. Sitting before you face down are a series of cards you are asked to turn over any two cards. The first is a picture of an apple, the second that of a desktop computer. Now the mind makes a synaptic connection between these two in the name of a company, Apple Computer. Before 1976 that name wouldn't have meant anything, however it was decided that by making a connection between the discovery of gravity by Isaac Newton through a falling apple, the semiotic connotations of the apple as

a source of knowledge and that of the invention of computer, that the new founding company would be seen as a source of discovery and knowledge.

Another example in the playful creation of new ideas comes in the form of a simple mental play. It is the most successful for idea generation when the period of analysis is complete and a wish for external new perspectives is desired. The game is called *free alphaciation* and is a form of free association, a technique in psychology developed by Sigmund Freud. In free association patients are asked to say the first thing that enters their minds no matter how superficial in response to a word that is said to them. Freud believed that a connection to the unconscious mind could be found in the connection between the initial word and the response word in this technique. In *free alphaciation,* the player writes one word beginning with each letter of the alphabet in order as fast as they can without regard to what the word is as long as it fulfills the requirement of the alphabet. After the list is complete the player looks at the words written and tries to find connections, disconnections, and other relationships between the words as well as how they relate to the design problem analyzed.

This is a process of stimulating insight through the playful rearrangement of available information; a process of making new connections are what Richard Buchanan called "conceptual repositioning." In *Wicked Problems in Design Thinking* Buchanan wrote, "There are so many examples of conceptual repositioning in design that it is surprising no one has recognized the systematic pattern of invention that lies behind design thinking in the twentieth century. The pattern is found not in a set of categories but in a rich, diverse,

and changing set of placements, such as those identified by signs, things, actions and thoughts."[37]

Play creates new connections and makes new discoveries when successful conceptual repositioning takes place and in that moment we transition beyond the Incubation stage to the sudden stage of Insight in that "AHA" moment.

Evaluating Ideas

In the creative process it is not enough to merely make ideas, but to also make ideas a reality. The last stage of the creative process is that of Evaluation and is where the new idea either sinks, or swims. Where the passage of the Incubation stage to the Insight stage uses playful divergent thinking, it is the Evaluation stage that uses convergent thinking; to decide whether the insight is worth pursuing and doing so. In this stage is where much of my personal design methodology comes into play, many people have their own way but here you will find mine. It is a way of visualizing whether an idea works for a particular design solution. The goal is to find a balance for a design solution under a three-part system of *Concept, Content* and *Form.* The idea that comes from the Insight stage may not be a refined one but the beginnings of one. The idea or concept is then weighed against the content of a design, that which contains the message, cause, beliefs,

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[37] Richard Buchanan, "Wicked Problems in Design Thinking," in *The Idea of Design*, ed. by Victor Margolin and Richard Buchanan (Cambridge: The MIT Press, 1996), 10.

information, entertainment, etc. that the designer wishes to inform, educate or persuade in the audience. The idea is also balanced against the form of a design, that which contains the application (print, web, motion, branding, interactive, etc.), style, structure, type, color, layout, etc. the visual aesthetics of a design. The *Concept, Content* and *Form* of a design are weighed and balanced against each other to see if an idea is working and/or what parts of the design do not work with the rest. In this convergent thinking is taking place that as Mihaly Csikszentmihalyi writes, "…involves solving well-defined, rational problems that have one correct answer."[38] It is in the Evaluation stage that each designer uses his or her own design methodology, and if it is found that an idea is not working well then it is back to the playground, which sounds a lot more fun than the "drawing board."

Conclusion

With the act of play we can bring insight, creativity and discovery into the creative process. In *Creativity*, Mihaly Csikszentmihalyi writes that one trait of creative individuals is '…the related combination of playfulness and discipline, or responsibility and irresponsibility. John Wheeler says that the most important thing in a young physicist is "this bounce, which I always associate with fun in science, kicking things around. It's not quite joking, but it has some lightness of joking. It's exploring ideas.'"[39]

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[38] Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (New York: Harper Perennial, 1997), 60.

You can discover more *ideas* in an hour of play than you can in a year of conversation. The act of play frees the mind to make new discoveries, and unexpected and unforeseen connections that result in a more effective communication between a design and it's audience.

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[39] Ibid, 61.

Fig 1. *Creative Blocks.* 2007. Greg Eckler

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