



## INTRODUCTION

I was fortunate to have a foundational experience as a middle-schooler, during which time I attended an Environmental School—a small public school that functioned on the premise of using the outdoors as a “living textbook.” The program was hands-on and immersive; a large majority of my knowledge during those two years was derived through experience, observing, doing and showing. For example, to learn math we built a log cabin, and to learn economics we operated a small chicken farm. For social studies, we built a Native American village and lived in it for a weekend; for science, we studied the birds, plants, clouds and weather; and for English, we wrote daily observational entries from our “spots” in the forest. This experience has greatly impacted me as a student, a designer, and as an individual. Those two years activated my sense of curiosity, helped to hone my observation skills, and provided me with a deeper understanding of the world and objects around me. Experiential learning is something I have since valued and I hope to continue this tradition of hands-on, tactile education through the output of my IP project.

Play is an important aspect of human development, contributing to both cognitive and social proficiency. My goal was to reimagine analog play in a three-dimensional, tactile, and innovative realm. My project aims to foster exploration, discovery, and social connectedness, while enhancing people’s creative capacities and logical reasoning skills in a fun and engaging way.

In our increasingly digital world where tactile play is becoming progressively limited, designers have the opportunity (and arguably the responsibility) to play an important moral role in revitalizing the physical, experience-based opportunities for growth and development.

Stemming from this passion to rekindle the relationship between our hands and our minds, I designed and produced a collection of “playful objects,” titled *Tink*, that explores the concept of integrating tactile play into the everyday.

Through my research I outlined three primary areas to address in the redesign. The first of these categories is storage; I have observed that games are generally stored/ hidden until the user makes a conscious decision and effort to play; the game is stored, played, and stored again. This collection of objects works to tackle the problem of integrating play into the everyday. I think that creativity is a basic human right that is often stifled by the monotony of every day responsibilities. I intend for my pieces to be interesting and abstract, something that could be left out on the table and incorporated into the décor of the home rather than stored away in a closet.

Secondly, many games have very rigid guidelines and rules by which the systems function. Over the course of the past two semesters I have been working to design and produce a collection of heirloom designs that in one regard have the ability to function as a game with set rules and instructions, but that are also loose enough to also function as a tinker-toy.

Lastly, games are often designed and marketed toward children. Mental stimulation through game play has the potential to extend beyond childhood, and to become effective tools for humans of all ages. My goal is to create products that appeal to a cross-generational market, from childhood to my primary target market, adulthood. These stimulating objects should encourage user interaction, inviting adults to tinker, imagine, and think critically through tactile, experience-based exploration.

## CONTEXT

To avoid contributing to the throw-away culture, the products are formally and materialistically refined; Together, these factors will hopefully lengthen the products' lifecycles. The products should encourage construction, logical reasoning, and should embody intriguing material interactions.

Sophisticated, playful objects have a niche place within the wider context of toy and game design. Nearly every household in the United States harbors a collection of products intended for play, suggesting that a viable market for such products exists. When developing concepts for this series of objects, I drew inspiration from a variety of sources. My many museum-visits while I was abroad in Europe motivated me to think differently about objects in a gallery space. My perspective was particularly affected by my experience at the DaVinci museum in Kolding, Denmark. DaVinci's inventions were brilliantly interactive and hands-on, and even within the context of a museum, the objects invited the viewer to engage, touch and play.



An important notion for me to bear in mind while designing *Tink* was the concept of “emotional design.” Emotional design refers to the idea that “aesthetically pleasing objects appear to the user to be more effective, my virtue of their sensual appeal” (Emotional Design). Donald Norman discusses three dimensions of design in his book *Emotional Design*. The book demonstrates that almost all objects are perceived on all three dimensions – visceral, behavioral, and reflective –and that all three dimensions should be interwoven into any successful design.

The visceral level of perception is influenced by intuition – often relating to appearance, texture, and sound.

The behavioral dimension of a human-product relationship pertains to the user actions elicited by the object. “This level is about functionality and is influenced by pleasure and effectiveness of use (accessibility and usability).

The reflective level is “influenced strongly by self-image, satisfaction, memory and the meaning of things. This level becomes more important as products mature.” Product lifecycle is something that I took into consideration when designing the objects in *Tink*. I was inspired by the idea of “heirloom design” – creating things that grow better with age, things that can be passed down through generations. It is my goal that my products are well-designed, durable, and precious enough to be cherished, rather than thrown away in a month, a year, or ten years from now.

One example drawn upon in Norman's book is Juicy Salif, Alessi's famous juicer, designed by Philippe Starck. While Juicy Salif is a functional object, formally it also stands as a sculptural, beautifully refined, and valuable ornament in the kitchen.



*Tink* was immensely inspired by Scandinavian design; I specifically drew from the works of Danish designers including Gerorg Jensen, designer of Moneyphant and the panton tray, among many other beautiful, emotional objects. Through research of other high-end design objects, I observed that one way to translate the childhood play-experience into a product-based adult realm is to elevate the aesthetic qualities in terms of form and materials.



I was also inspired by the appropriation of existing product concepts. An obvious but still successful example of this sort of appropriation is the game Cards Against Humanity, which borrows the guidelines of Apples to Apples but translates the game into a more entertaining version for adults, and "horrible people." Another example is the tactile version of Sudoku, Colorku, which uses 9 colors instead of 9 numbers. In my opinion, this 3-dimensional adaptation significantly benefits the game because the traditional Sudoku requires so much trial and error and erasing and rearranging, and this version successfully addresses those issues.



Lastly, material interactions play a significant role in my project, so I looked to other designers including Adin Mumma, designer of the Wobble Chess Set. The actual rules of play in this Wobble Chess Set do not change but there is something intriguing about the way the pieces interact with the board. The classic Kinetic Motion Desk Toy designed by Senser is a good example of an interactive and educational toy, utilizing basic elements to hypnotize and soothe your senses while also teaching Newton's Cradle Concept of Kinetic Energy.



## PERSONAL CREATIVE WORK

BLOCROCS

Blocrocs are an aesthetic spin on the classic building block. They are constructed from walnut wood and hand-painted with trendy shades. Through enhancement of the form and adjustment of color, construction becomes a bit more complicated and intriguing. Blocrocs can be stacked and aligned on various edges to create three-dimensional illusions and forms, and can also act as an element of decoration on a desktop or table.

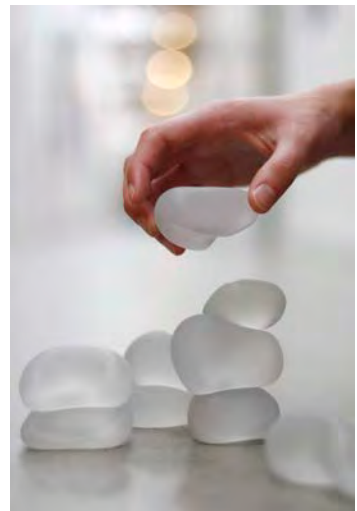
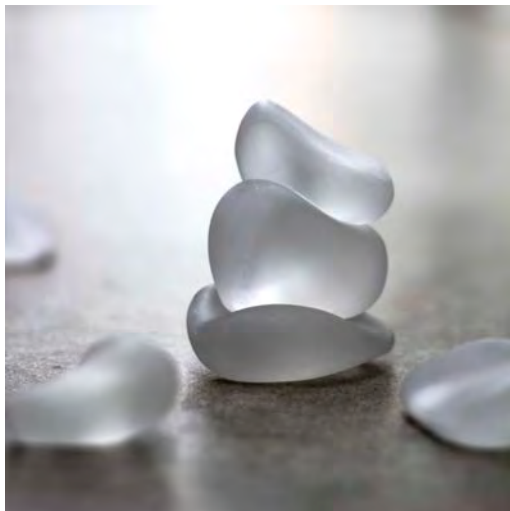


# ebbles

stackable toy pebbles

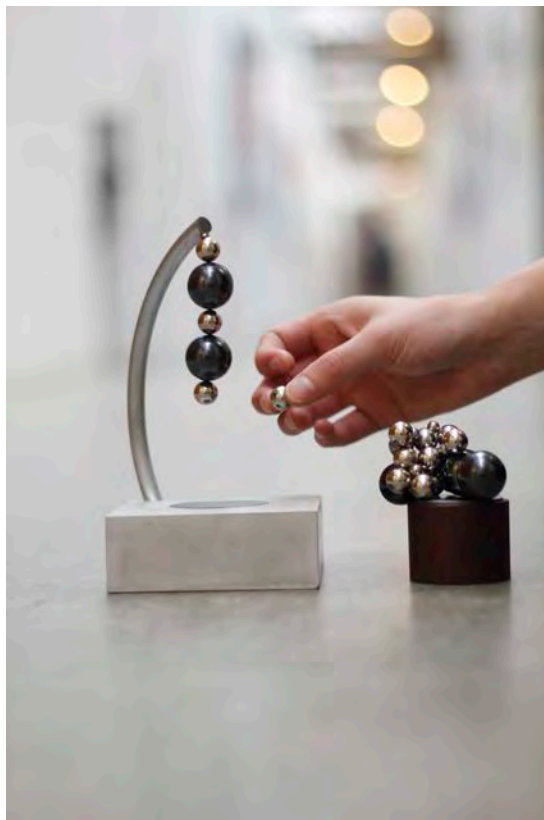


Ebbles are a toy consisting of ten uniquely formed stackable stones constructed from clear resin. The stones were ergonomically formed to fit precisely within the curves of one's hand while simultaneously fitting along the curves of the other stones. The intriguing translucent appearance of the material in conjunction with the smooth and ergonomic feeling of the surface encourages users to touch and hold the objects.



f i n i k i

Finiki is a spin off of the typically two-dimensional game widely known as hangman. The base is constructed from concrete and walnut. Users can engage the various sized spherical magnets to create forms and play games. By bringing this activity off the page and into a three-dimensional realm, users gain the benefits of material interactions and tactility. Formally this game is abstract and minimalistic, making it suitable as a tabletop decoration piece. The goal of this design is for users to leave the piece out for frequent and daily tinkering.

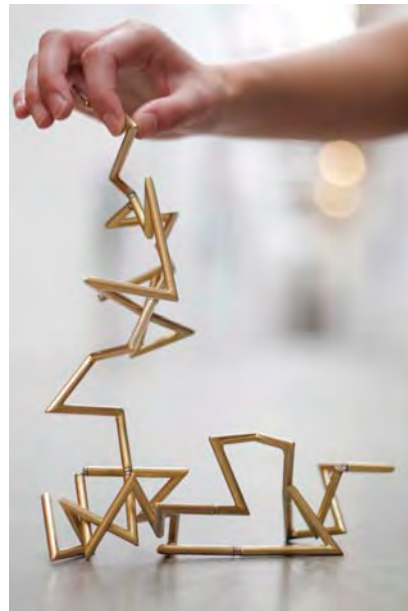




# MAGZAGZ

MAGNETIC CONSTRUCTION COMPONENTS

MagZagZ originated as a re-design of the classic Barrel of Monkeys. MagZagZ are a set of oddly shaped metallic forms with magnetic tips that connect with other forms in the set. By strategically connecting tips, unique sculptures can be formed. When not in use, the pieces rest into each other in a star-like form on the tabletop casting intriguing shadows and catching the light on the components' geometric surfaces.



# Modu

Modu is a three-dimensional puzzle that draws from the experience of traditional puzzles and building blocks. The leather-coated pieces are hinged in a way that requires problem-solving and spatial reasoning skills. A tetrahedron is the most basic three-dimensional shape, consisting of four sides of equilateral triangles. Modu aims to strike a balance between mental stimulation and fun, as it encourages users to reach an objective; hinge the pieces into the puzzle's most refined form.



## CONCLUSION

Well-designed objects have the ability to provide experiences that revive the artistic soul, stimulate the mind, and promote face-to-face social interactions. Many existing games have rigid guidelines and rules by which the systems function. As we mature and adopt more highly structured lifestyles I think that it is important to preserve space for curiosity, exploration, and discovery.

Tactile play has the potential to extend beyond childhood to engage minds of all ages; this series of toys aims to reach an adult market through development of the physical form, method of play, and interactive qualities. The objects are designed to be integrated into the living space as functional sculptures that encourage users to “tinker.” They beg to be left out on the coffee table or on a desktop as a playful conversation piece—something that engages multiple individuals, bringing them together in a mentally stimulating way.

In the words of Pablo Picasso, “All children are artists. The problem is how to remain an artist when he grows up.” I think that societal norms are what stifle our innate creative capacities. We are living in an age of social media, standardized tests, and robot-producing education systems. I’ve watched a few of Sir Ken Robinson’s TED talks on education, and in one of them he says: “They train us to see one answer, and it’s in the back of the book.” I want to reverse this notion. Creativity begins with the ability to think divergently, the ability to see lots of possible answers to a question, and to see lots of different ways of interpreting the question. I believe that this issue can be addressed through playful objects.

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