a story of play

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abstract

Similar to storytellers of the past, children often make and perform their own stories as they play. The aim of this project was to utilize the textile medium in providing children with a platform which inspires and supports creative play.

The resulting surface is a patchwork rug through which the role of storyteller is shared with the user. Users are able to see + use the patterns in their own tale; read + share the story behind each pattern; and mix + stitch the scenes that make up the rug.

This particular rug depicts six creation myths from around the world; from the birth of the sun in Central America to the Norse tale of why the seas are salty. The composition of each pattern is inspired by textiles and folk art of each respective culture from which the tale came.


Den här mattan skildrar sex skapelsemyter från hela världen. Gestaltningen av varje mönster är inspirerade av textilier och folkkonst från samma kultur från vilken sagan kommer ifrån.
preface

Special thanks to the help and support of faculty at HDK in the development and implementation of this project. The final prototypes would never have been possible without the laser cutter and digital printer and knowledgeable technicians.

An extra thanks to Penny Smith and the children and staff of the International Preschool for taking the time to schedule and partake in workshops and various play sessions. My project would not have developed as it did without your support and play expertise.

Also, thank you to Texla for their sponsored help in the lamination of the final prototype.

And of course, thanks to my family, friends, and tutor Carl-Johan for words of wisdom and guidance throughout the entire process.
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introduction

Textiles have long been associated with the art of storytelling. From narratives in weavings to expression in garments, textiles have and continue to communicate a story. Likewise, I am intrigued by the relationship between storytelling and play. Similar to storytellers of the past, children often make and perform their own story as they play.

Utilizing textiles as a medium, the aim of this project was to provide children a play surface that supports and inspires creative tales fabricate during free, imaginary play. The expected result was to create a site for play that relates to and reflects children as the primary user; designed and developed in terms of graphics and user interaction.

background

I have always had a strong interest in textiles, and in the past two years as a student in the Child Culture Design Program I have been particularly drawn to the medium. Apart from an interest in tactility and construction, I have always been curious about what textiles mean. As previously mentioned, textiles have a story to tell. Leading into the exam work I found myself on an Australian beach reading a book about such a history. In the book, Viking Women: A Narrative Voice in Woven Tapestries, author Dr. Lena Norrman discusses the context of weaving as a means to communicate a story; in support of the theory that Viking women narrated popular Norse mythology in the weaving of the Överhogdal tapestries.

When reading this book, I had already decided I wanted to work with textiles for my degree project. However, it was this text that sparked my contemplation into the art of storytelling in relation to children. As a former student of Dr. Norrman, I was exposed to the historic art of storytelling in her course Scandinavian Folklore at the University of Minnesota. As she reiterated in the book, every time a folktale or myth was passed on through storytelling it varied slightly according to present factors, such as the storyteller, the audience, and medium, for example a live performance, sand drawing, or weaving.

Likewise, I have observed that in the progression of play, children are often creating and fabricating their own stories. Similar to storytellers of the past, every time a child plays, a varied tale is narrated, dependent on the child (storyteller), peers or adults (audience), and artifacts and/or environment (medium).

limitations

From the onset one limitation was that the background and inspirational entry into the project was very conceptual: to create a play surface designed for children that inspires and supports creative play, inspired by the art of storytelling. On the other hand, the aim of creating a physical play surface required addressing a number of pragmatic issues. First and foremost, as this was the first time developing patterns played a major role in the outcome of my project, it was required that I devote time to researching the history and practice of the craft.

In addition to developing individual patterns, the overall composition of the product should trigger play, and be appealing and marketable to both children, adults, and multiple settings in the home. Thirdly, there was a personal desire to incorporate design element(s) which push our general connotation of a rug; perhaps a feature which strengthens a child's connection to, experience with, and memory of the surface. And finally, the limitation of crafting a prototype myself, which both accurately reflects professional production and that is functional and washable.
Entry into the implementation of this play surface included the research of textiles, from the historical context of imagery and folklore to pattern making in relation to child development; investigation into different avenues of stories and storytelling; and analysis of the current rug and play mat market.

The majority of this project was structured around the involvement of children in the design process. This included preliminary observations and workshops with children, followed by continual meetings and play sessions as the work progressed. The intent of the collaboration was to develop a product for children with children, and to accurately learn first-hand how children use and listen to stories, how and which kinds of stories children narrate during play, and to gain support and feedback of my own designs.

In short, during research I found that the rugs and play mats marketed for children denote a direct and specific entry into imaginary play; commonly depicted is a cityscape complete with roads, traffic signs, green space, and buildings. In my opinion, it is hard to visualize such a play mat outside a “playroom.” With this, I am not saying that these play mats are wrong for play, rather I believe there may be another approach to developing a play surface more relevant to current market trends, which includes both designers and consumers “preferring a timeless look that ties in with the rest of the house and will suit a child through to their teens” (de Bruyn). Therefore, my aim with this project was to develop a play surface: with a variety of scenes open for interpretation and use; that can compete in the market as a rug for any shared space in the home; and which was developed with child involvement in the design process.

concept development
Analysis of current market trends, together with preliminary observations made of children, also set the platform for the type of rug I wanted to develop. I noted that during play the scene of the story being narrated and acted out by the child would constantly change. Often this change of scenery occurred with a twist of the body. Visually the movement and scattered layout of the play surrounding the child reminded me of a patchwork rug; acting as a backdrop this type of rug could act as a storyboard composed of various scenes (figure 1). It was at this point I decided not only to take advantage of the similarities between the composition of the rug, the play, and a storyboard, but also the current popularity and trend of folk or tribal patchwork rugs, and my personal draw to the style.
In addition to the advantages of the popularity of folk and tribal motifs and the composition of a patchwork rug, there is the rich historical connotation between these textiles and folklore and mythology. Therefore, I began the hunt for a story to use in development of the rug surface in the area of folklore, specifically Scandinavian folklore as it was an area familiar to me from undergraduate studies. In searching and reading tales I wasn’t necessarily looking for well known literature, but rather stories which had strong imagery and numerous scenes to inspire the patterns. It was not long into this search that I found myself immersed in creation mythology from around the world; myths which in my opinion depict imaginative and creative explanations as to how everything came to be.

By selecting to work with this genre of mythology I had at my disposal a variety of stories, imagery, and cultural styles to depict in patterns, all with the common thread of explaining the origin of elements in our landscape. I made a conscious effort to select six tales from around the world from cultures in which I was either already familiar with or could easily research their folk art and textiles and that were simplistic in terms of number of characters, scenery, and plot. The myths used in this project include an Ashanti myth from West Africa about the moon, Navajo from North America about the Milky Way, Aztek from Central America about the sun, Nenet from Siberia about the earth, Norse from Scandinavia about why the seas are salty, and a dream state myth from the Ngurunderi in Australia about rivers. In reading more than one version of each tale, I wrote my own abridged version which can be found in the appendix together with the original sources.

result

The resulting play surface is a patchwork rug composed of six open ended patterns each depicting one of the selected creation myths (figure 2). Through the design and development of both the rug’s surface and construction, the final product shares the role of storyteller with the user. Users are able to see + use the patterns in their own tale; read + share the story behind each pattern; and mix + stitch the scenes that make up the rug.

The patchwork rug acts as a storyboard, which can be filled with various scenes. In this particular prototype I have depicted six creation myths. From the birth of the sun in Central America to the Norse tale of why the seas are salty, these tales tell how familiar elements of nature were once created. How the rug came to be is a long story all its own.

*figure 2.* “a story of play” patterns by Erin Stromgren
children and the design process

I began to depict and pattern my own symbolic narrative of each myth as I read and re-read the passages and researched textiles and folk art of each respective culture. Simultaneously, I also began a series of scheduled meetings with a group of children at the International Preschool in Majorna.

The purpose of the initial workshop was for me to gain a better understanding of how children use and interact with stories and storytelling. Leading into the workshop, held on February 28th, I was considering whether or not the specific creation myths being used to develop the patterns should be shared with the user, and if so, how?

What I observed in this workshop was a large determinant in the continual direction of my project. Having asked the children to draw something they had seen out in nature, I gave them the option to share a story about what they drew and how it came to be in nature (figure 3). I found that it was much easier for the older children, ages 5-6, to articulate and narrate a fabricated story built on and around what they had drawn. The younger children, ages 3-4, were a bit more hesitant and preferred to collaborate with others, sharing common themes and elements in both their drawings and explanations.

From this workshop I saw that I could and should consider the rug as a tool for storytelling. Especially for children between the ages of 0-4, the rug could be a platform for sharing stories and interaction with adults. It is in this age range that children have or are just beginning to engage in imaginary play and make-believe, but still rely on adults to provide some material, inspiration, and ideas (“Guide to Maturity…”). The rug would also remain an open-ended platform upon which the children could recreate the shared tales, act out their own stories, and interact with adults and/or peers.

design and development

While researching creation mythology I stumbled upon the following passage by philosopher Martin Buber about a child’s entry into life, as quoted in Maclagan’s book Creation myths: man’s introduction to the world:

_He has stepped out of the glowing darkness of chaos into the cool light of creation. But he does not possess it yet; he must first draw it truly out, he must make it into a reality for himself, he must find his own world by seeing and hearing and touching and shaping it._

Essentially this passage describes the process of imaginary play; during which children learn about themselves in relation to their surroundings and others through repetition and imitation of behaviors, sounds, and actions narrated either internally or projected through artifacts in play. Time for such free and self directed imaginary play is an essential aspect of child development (Child Development). Thus, it was important that development of this play surface focus on creating patterns which leave room for the children to interpret and use as they see fit in their play. Development also included the exploration of enhanced interaction between the child and the surface achieved through material and construction.
Pattern development began by roughly sketching the layout of the scene, as I pictured, being described in each creation myth. In accessing various books and resources (see reference page) about textiles and folk art from the different cultures from which the tale came, I began to notice certain repetitive shapes and forms in each. In keeping the patterns open ended I used these simple shapes to build up each pattern, take for example the repetition of the square in the Norse pattern shown below in figure 4. This approach also coincided with techniques used to exercise a child’s recognition and learning of shapes and colors, vital in visual development (Child Development).

I returned to the International Preschool with patterns to see how the children would use and interact with what had developed, and as an opportunity to test sharing the stories. During the visit I observed children investigating the patterns during their free play. Anxious to learn what this giant paper was, it was not long before we were all gathered on the ground around the patterns. The children were very engaged in touching the surface sharing what they saw (figure 5). After I shared the tales the children searched the patterns for details and shapes that matched elements of the story. For example in the Norse tale about how the seas became salty, the children explained to me that this must be the correct pattern because of all the small squares were grains of salt. The stories enhanced the interaction between the children, the children and the surface, the children and adults, and the play that followed story time (figure 5). From this it could be determined that the stories should be shared with users, and, as they are easy to memorize, this can be done in print either on the packaging, a pamphlet, or on the back of each pattern.

Following this visit continuation of pattern development focused on refining details and adding color. I began to develop a color bank, working with hues and tones respective to each culture, see Norse example in figure 4. Again I wanted to keep things simple; the rug and patterns are composed of only 10 colors which are applied, repeated, and combined to enhance contrast between shapes, forms, and sections. I believe the rug could be done in different colors as long as the same restrictions are applied. The contrast in color is important to a child’s visual comprehension of the surface. When born most children are able to see shapes and contrast of colors; it is not until later, and for those with impairments perhaps never, that children begin to see primary colors and recognize the difference between the types of colors and shapes (Child Development).
Of course this process was not without tangents. Leading into the mid-presentation I shifted the focus of development to enhancing and animating specific events of each story through magic motion animation and/or quilting techniques (figure 6). The techniques used to achieve the user controlled illusion of animation breaks down solid 2D shapes and aesthetically imitates the look of weavings. While a fun technique, the pattern became too complex and with the animation too direct. It was recommended that I step back and refocus on the simplistic scenes and patterns I had started to develop, which I did immediately following the mid-presentation.

I also briefly explored an idea that children could add color to the rug as they play. Utilizing a technique of coloring fabric with watercolor pencils, over time a patina effect of color would organically build up as the rug is colored and then washed (figure 8). Although the children enjoyed the coloring associated with this approach, I noted that it was a completely different type of creative activity. As well, it was the colored prototype that children utilized and preferred during their free play and story time during my visit (figure 7).
**material and construction**

Development of the material and construction techniques used to create a play surface was most inspired by a child’s physical interaction with their surroundings during play. The printed surface and base were selected in terms of tactility, durability, and function. In attempt to relate the size of the play surface to a child’s body, I began to work with a modular construction system. In the end the rug is presented as a whole, measuring approximately 150 cm x 90 cm, with the option for users to take it apart, play with the individual pieces, and put the sections back together. The modular pieces, ranging from 36 cm x 36 cm to 115 cm x 36 cm, are easy for the child to move together with their play (figure 10a). Wanting to keep the aesthetic asymmetry often used in patchwork rugs, the modular system is based on the number of joints on each side being a multiple of five. The joints were inspired by traditional stitches used on rugs (figure 11). The time and effort required to stitch the pieces of this rug together plays homage to the craft of traditional textiles. The process of stitching promotes interaction and trains mechanical skills (figure 10b and 10c). The design of these “stitches” is aesthetically pleasing, tactiley stimulating, and structurally stable.

During this exam period I produced two prototypes. I utilized both the digital printer and laser cutter at HDK. Although hindered by the different material allowance of the two machines, I was able to oversee and work hands-on with every aspect of the process. In short, the production process included test printing to calibrate colors and material, preparation of material for the printer, and printing of the patterns. After numerous rounds of rapid prototyping of the connection joint, I laser cut both the modular felt base and the printed surface to fit.

The smaller of the two prototypes was digitally printed on a loose cotton weave (figure 9, left). This prototype represents the intended texture of the surface, achieved in production by printing on texture material (as I did), weaving the patterns, or by printing directly on the felt. The printed fabric was fixed to the felt base by hand using Vlisofix. One problem with this prototyping method was I did not work fast enough to fix the surfaces before the glue set. This called for hours of re-gluing and finishing all the temperamental edges with glue painted by hand.

The larger of the two prototypes was printed on Poplin (figure 9, right) and fixed to the felt base with the professional help of Texla. This prototype is intended to be used and played with, and represents the proposed size of the rug and the durability offered in professional lamination. It should also be noted that in production the felt base would be cut using a die cutter.

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**figure 9. Photos by Erin Stromgren**

**figure 10. International Preschool, April 24, 2012**

*Photos by Erin Stromgren*

**figure 11. Rug Stitching**

*Photos by Erin Stromgren*
In the end I presented a physical play surface designed for children that inspires and supports creative play and is inspired by the art of storytelling. In the presentation of the design process and final prototype I documented that this artifact successfully resonates with children as a tool for imaginary play, with patterns that are open to interpretation, with stories that enhance user experience, and with material and construction which create a tactile surface relevant to the scale and movement of a child (figure 12). As my opponent shared, she was skeptical until seeing the prototypes in person that this was a product for children. I took this statement as a compliment, considering that the final result is functional, appealing, and suitable for any age and space in the home, and in the fact my examination presentation adequately presented my work and told my story.

In the end I have also presented an idea. In utilizing traditional motifs in the development of my own patterns I believe that users might recognize the pattern type and/or style in other textiles found in the home or on the market. Thus, in remembering the stories shared through this product, perhaps they will seek the stories and history behind other textiles. The pattern and modular system of this rug were designed to play homage to the time and care placed in handcrafted textiles.

The positive feedback and discussion following my examination presentation with my opponent, Ulrika Engberg, tutor, Carl-Johan Skogh, and examinerator, Johnny Friberg, produced inquiries and sparked concepts to push this product even further.

In retrospect, the patterns I developed were done rather freely, with an artistic like approach. In an attempt to depict the story in an open ended pattern I combined my own artistic interpretation of the story’s imagery with the structure of pattern development, in the repetition and restriction of simple shapes and color range as relevant to child pedagogy and development. However, as it was pointed out during the examination discussion, perhaps these patterns could have been developed with even more structure so that they could be dissected or decoded by the user. I was asked to consider children who prefer a more realistic and practical surface for imaginary play, perhaps as offered by the cityscape example found in the market. In developing or editing my patterns with a stricter mathematical approach could in fact offer more direction, rules, or instruction for play when broken down and decoded. Take for example patterns developed using factorials or the mathematics and geometry behind Islamic patterns or in the Alhambra Palace in Spain.

figure 12. International Preschool, April 24, 2012
Photos by Erin Stromgren
I was also asked how important the stories are to the success and strength of the rug as a product. As previously discussed, I believe the stories provide an ideal platform for interaction between children and adults, and enhance a child’s interaction with the surface. Although, the stories are not necessary to understanding the patterns and rug in relation to play, the stories do give more meaning to the patterns and as I witnessed first-hand build a stronger connection between the user and the rug. It is as Dan Dedera wrote, how as a child he was told the name of one of his family’s Navajo rugs was Blue Mountain. As an adult he can still recall sitting on the rug as a kid searching for the blue mountain in the pattern (Navajo Rugs). Through hearing the stories users can gain a better idea as to why the patterns look the way they do, recognizing the pattern style or by finding elements of the story in the pattern. As well, the patterns strengthen the memory of the story.

Reconsidering how the patterns were developed raised other question and areas for growth and expansion. Take for example the modular system. In placing the pieces together, what kind of puzzle effect or continuation of the patterns could be achieved? Could and should something more happen when the pieces are placed next to each other, for example when joined two pieces make a third pattern.

Initially I envisioned this product being for the home setting. However, as I worked with children mainly in the preschool setting, I found there is a potential avenue for marketing the product here, which was also pointed out during the examination. In a pedagogical setting the rug could be used on a number of levels. As a group, teachers could gather children on the rug to share the stories. Individually or in groups, children can use the patterns and sections as a platform and element during free play. Connecting the pieces could be a group or individual activity, positive in terms of interaction and developing mechanical skills. And finally, if to revisit the pattern development from a mathematical viewpoint, the decoding of the patterns could be used in the teaching and practice of math.

At the end of the examination I was asked what was next for me as a designer. As a student I have found joy in exploiting existing forms and historic concepts into new artifacts as a way to enhance our interaction with and experience of our everyday surroundings through design. Throughout the two years as a student in the Child Culture Design program I have engaged the phrase discover new things in a familiar way; discover familiar things in a new way to be a core element in my design work. It is my professional goal to work in the field of exhibit design, especially those that engage and educate children. My aim is to create enjoyable, user-friendly experiences that present information in exciting, yet tangible ways.


**Ashanti | West Africa**

On his way along the river bank into town Anansi spotted a bright glowing ball of light sticking out of the ground. His eyes gleamed with joy as he picked up the ball and put it in his pouch. Little did he know a fish swimming by also wanted the ball and swallowed Anansi in one gulp!

Luckily, Anansi’s six children sensed his trouble and came to his rescue. As a thank you Anansi wanted to give each child a piece of his new treasure. As they tried to decide how to split it, a bird swooped down; she grabbed the ball of light, and flew away pulling it into the sky by a string. But the bird grew tired and let go, leaving the ball hanging in the sky. In the end everyone got to share the light. Every night it is there in the sky where the bird left it, shining as the moon.

“Anansi and how the moon got put in the sky.” *American Journal of Community Psychology*, 20 February 2012. <springerlink.com>.


**Navajo | North America**

Even with the moon hung high in the sky, the night was still dim. That is until one community in the heart of the desert had an idea. Working together the village carefully sculpted small diamonds of light, until they had enough to fill their blanket. Then they climbed up a ladder, reaching high above the horizon, and hung each diamond, one by one, as a new star in the night sky.

They were so busy working that they did not notice a curious coyote wonder by. The coyote stopped to watch, but quickly grew tired of how long the work was taking. When no one was looking he grabbed the blanket in his mouth, shaking all the diamonds into the sky as he ran! The stars landed together in a cluster stretching across the sky. On some nights you can see the mess the coyote made and it is what we call the Milky Way.


**Aztec | Central America**

There once was a time when the world was cold. One group of gods decided to make a fire in the sky; close enough to warm the earth but not too close that it would burn. They asked each other who wanted to live forever as a fire in the sky. One very proud god Tecu said, “of course!” They asked for someone to join him and come out when he need a rest. They could hardly hear when the small, kind voice of Nana volunteered.

The gods built a giant fire between two temples. When the time came for the brave Tecu to jump in and raise into the sky, he froze with fear. But Nana did not hesitate, and by the time Tecu jumped in after her it was too late. Instead Nana rose from the fire turning the sky red. Ever since, Nana’s warm loving rays fill our days with energy as the sun.


**Nenet | Siberia**

A long, long time ago there was water everywhere, so one little birdy went for a swim everyday. One day she dove so deep into the dark water that she felt the bottom. When she swam back to the surface she saw something stuck in between her toes. It was mud, and when she tried to clean it off it stuck together on top of the water.

This gave her an idea! She dove back into the water pulling more mud to the surface. She did this again and again and made a pile that grew bigger and bigger. She worked until the sun came up. When the sun’s rays hit her pile it baked the mud into a hard surface beneath her feet, making the same ground on which we stand.


**Norse | Scandinavia**

It was a cold, dark winter and Frodi’s family was very hungry. Frodi begged his brother for food, but all he did was give him a leftover pig’s foot. He said to offer it as a gift to the devil. He did and in return he received a stone wheel and some magic words.

When back home he told the stone how hungry they were and it turned, making food for the entire family! All Frodi had to do was whisper the magic words when they had enough.

That night while the family slept a sailor snuck in and stole the stone! He sailed out to sea and told the stone to make salt. But the sailor did not know the magic words to make the stone stop. Quickly the boat became heavy with salt and sank. The stone never stopped spinning and that is why we have such salty seas!


**Ngurunderi | Australia**

Rundi stretched and yawned as he woke up from a long, long dream. When through his sleepy eyes he saw a fish swimming towards him up a small stream. He ran after it and as he got closer he realized it was a giant fish!

He couldn’t catch the fish by himself, so he decided it was best to rest and call on his brother for help. The two met and continued the chase until they caught the giant fish. As they walked back home they were surprised at what they found. It seems that as the fish swam his body carved deep into the earth making the small stream wider and wider until a river was formed.
