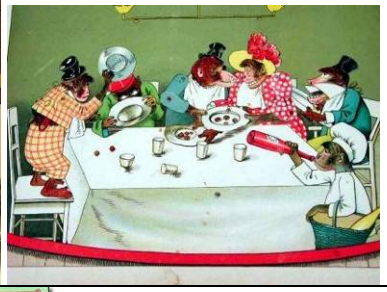
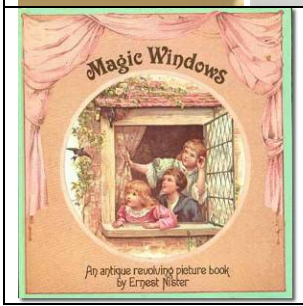
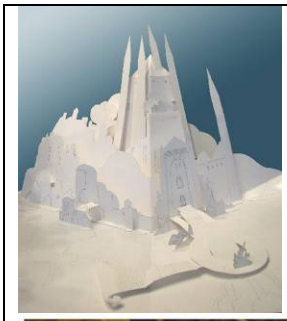
Digital Story online at: http://digitalstorytelling.coe.uh.edu/view_story.cfm?vid=343&otherid=searchds&d_title=none

IMAGES	TRANSITIONS & EFFECTS	AUDIO
	VISUAL: Transition between images of pop-up cards, early pop-up books, and modern pop-up books. AUDIO: spoken dialogue with music in background	Coming from an Art History background, I’ve always been curious about how techniques evolve over time. I was always taught that in order to appreciate the existing, we must first understand the past and where it has come from. Paper engineering has always been of interest to me because whether we know it or not, it is a part of many common day things…whether it’s a birthday card, or its most well known example, the pop-up book. Like everything else, paper engineering has its own history and an evolution that can be seen from simplistic paper mechanisms in movable books to cutting edge pop-ups that literally burst off the page and into the readers lap. Some may look at a pop-up book and simply right it off as a fancy coffee table book or a children’s toy, but there really is more than meets the eye. Pop-ups are a series of paper mechanisms that literally unfold and pop into 3-D sculpture to illustrate an idea. These paper mechanisms have modest beginnings in movable books where they began as simple disks and folds. Although they are normally thought of as being synonymous with children, today’s pop-up books tackle subjects for people of all ages.
	VISUAL: Possibly try to create a fuzzy tv screen effect that morphs into an early example of volvelles in movable books AUDIO: Bad reception sound morph into period music with spoken dialogue	(1250) Before everyone’s eyes were glued to a television or a video game, movable books gave readers an opportunity to interact with the text and become more engaged. The first paper mechanism, the volvelle or rotating disk, was primarily used for academic purposes to organize and simplify the research process. Matthew Paris used these disks for circular charts to help calculate religious holidays without having to sift through bulky volumes of text. Petrus Apianus later use volvelles in the 16th century for astronomy and navigation.

	VISUAL: image AUDIO: spoken dialogue with music in background	(1719) Folds were introduced as another way to share academic research and educate adults. Johann Remmelin produced an anatomy text (Catoptrum Microcosmicum) that used folds to uncover the parts of the body that were not obvious to the naked eye such as, tissue, bones, and muscles.
	VISUAL: Transition between images AUDIO: spoken dialogue with music in background	(1765) Folds were later used to engage and entertain children. Robert Sayer created the first movable book explicitly for children, called “harlequinades” or turn up books. These were pamphlet-like books that were made up of a series of gatefold flaps that the reader could lift in order to advance the story and illustrations.
	VISUAL: image AUDIO: spoken dialogue with music in background	Based on that success, English publishers began to cater to children by producing paper dolls (Little Fannie, The Paignion) and other related products in addition to books.
	VISUAL: Transition between images, video AUDIO: spoken dialogue with music in background	(1850s) In the US, Dean & Sons created the first 3-D illustrations called “peep shows”, also known as tunnel books, which used superimposed images to create a type of virtual reality.
	VISUAL: Meggendorfer video clips AUDIO:	(1880s) Pull tabs burst onto the scene when Lothar Meggendorfer refined the use of rivets to create life-like movements. Still keeping images confined to 2-Dimensions, these pull-tabs controlled rivets, strings, and levers that brought the illustration to life. His genius transformed the world of both movable books and children’s literature.
	VISUAL: video of transforming magic windows AUDIO:	(1890s) Ernest Nister used pull-tabs in his transformation books. Transformations consisted of two stacked images, cut in such a way that the pull tab could change from one image to the other. He even took it one step further and created remarkable pinwheel mechanisms to create a spiraling transformation that further engaged readers.

	VISUAL: Transition between images, video AUDIO: spoken dialogue with music in background	(1898) Other people, like Isabella Braun (Actor), etc… utilized pull tabs by layering superimposed images to create a 3-D space once the reader lifted and pulled the tab. These panoramas allowed for a variety uses whether it was to simply illustrate the story or to create engaging 3-D “theaters” in which children could direct center-stage. Dean & Sons, Meggendorfer, and Nister also used pull tabs in this manner.
	VISUAL: Transition between images AUDIO: spoken dialogue with music in background	(1920s) Pop-ups, as we know them today, were born in the 1920s when Stephan Louis Giraud created 3-D mechanisms that were activated by turning the page. His Bookano Series finally allowed the images to automatically leap off the page and surprise the reader with every turn.
	VISUAL: Transition between images AUDIO: spoken dialogue with music in background	(1950s) Pop-up books got even more “pop” with the innovations of Vojtech Kubasta. He was trained as an architect and began using his design skills in commercial graphic design where he created 3-D pop-up advertisements and Christmas cards, because he said, that it “[made] them livelier”. In doing so, he was one of the first to bring pop-up mechanisms into the mainstream and use them outside of children’s literature. Later, he found his niche when he turned his talents to creating children’s books and eventually worked with greats like, Walt Disney, to create pop-up books that were translated and distributed worldwide.

	VISUAL: Transition between images AUDIO: spoken dialogue with music in background	(1980s) Contemporary pop-up books as we know them today, employ the traditional paper mechanisms of the past and transcend age and genre boundaries. Ron van der Meer was the first paper engineer to insist that pop-ups weren’t limited to child fans. Teaming up with renowned content experts, he created books geared towards adults. Although he was first turned away by publishers who told him that “adults weren’t [going to be] interested in pop-up books”, he successfully pursued his ideas and has created books on everything from art to sailing.
	VISUAL: Transition between images, video AUDIO: spoken dialogue with music in background	(1990s) Robert Sabuda and Matthew Reinhart are probably the most famous of the contemporary paper engineers & pop-up artists. Whether you know it or not, you have probably seen their work because it is everywhere, it’s even showcased on TV programs like Oprah and The Today Show. Their intricate pop-up books incorporate mesmerizing paper mechanisms and even include hidden compartments to be discovered.

	VISUAL: Transition between images, video AUDIO: spoken dialogue with music in background	Should I cut this part??????? Sabuda, has been instrumental in sharing the word of the pop-up by teaching the ins and outs of the craft, as well as the production process, to enthusiastic followers. Full scale paper mock-ups are created to show exactly what the finished book will look like with every element and mechanism. All images are “nested” or laid out and placed close together on special paper for a double sided print. Handmade dies are used to cut out all of the pieces of the pop-up mechanisms. Artisans take the paper pieces and assemble them by hand-gluing every piece. Pop-up books, made by the 100,000s are one of the few remaining mass produced items to by primarily handmade.
	VISUAL: video AUDIO: spoken dialogue with music in background	(2007) When Disney was creating the movie Enchanted, they decided that they wanted to pay homage to a timeless aspect of children’s literature…the pop-up book. In order to create flawless transitions for the movie, they enlisted the help of famed special effects company, Reel FX. Upon exploring the traditional production process of pop-ups, the Reel FX team had to take it one step further and recreate everything digitally and provide seamless transitions with existing video footage. After this “exhausting” process, everyone on the Reel FX team agreed that they now have a profound respect for the pop-up and for the engineering minds of the artisans who create them in their traditional form. Others employed this method as seen in commercials and music videos.

	VISUAL: Transition between images, video AUDIO: spoken dialogue with music in background	So why are pop-ups still relevant today, in our modern world? How have they managed to survive and evolve for hundreds of years instead of disappearing into the land of forgotten fads? It’s simple: due to their tactile nature, the reader gets to actively participate in the story because “a flat page of a seemingly normal book can be lifted and turned to create a 3D” world that is waiting to be explored. With pop-ups, every section works in a different way – every time you turn the page there is a surprise.” What started with simple volvelles, folds, and tabs, has evolved into 3-dimensional paper sculpture. Some may mock their ingenuity or laugh at their pop culture status, but there is no doubt that pop-ups are engineering marvels. The New York Times said it best: "calling this sophisticated piece of engineering a 'pop-up book' is like calling the Great Wall of China a partition". Regardless if you can respect the engineering and the history behind the creation of a pop-up book, there is no denying its ability to bring a smile to your face.