

Interest in Material Histories and Digital Futures of Books

The NEH Summer Institute on "The Book: Material Histories and Digital Futures" offers a fascinating program overlapping book history and digital humanities, two fields that overlap with my research as a PhD candidate in English/Digital Humanities on digitizing nontraditional books.

One facet of my research is recognizing the affordances and limitations when tactile children's books like *Pat the Bunny*, *Press Here*, and *Spot the Dot* are translated into apps. For example, the *Pat the Bunny* app uses the built-in camera in place of the mirror from the book, the *Press Here* app changes the colors of the dots by touch just as it does in the book when the page is turned, and the *Spot the Dot* app replaces lifting the flaps with swiping the touchscreen (See "Pat, Press, and Spot: Translating Tactility between Traditional and Technological Books" MLA 2017).

Another aspect of my research is creating 4D volumetric captures (digitizations that you can zoom, rotate, and pan) to capture the spatial and temporal movements of movable books. I use a Kinect, which has an infrared depth and RGB camera, to capture the movement of opening pop-up books using technology developed by MimesysVR (See "Volumetric Captures: Digitizing Spatial and Temporal Shifts of Movable Books" SHARP 2017). I have also created animated GIFs of pull-tab books, like *Always Jolly: A Movable Toybook* by Lothar Meggendorfer, and my research was featured in *The American Scholar* (See "Digitization and Dissemination of Movable Books Data" DHSI). I will also be sharing my research as invited speaker of the 2018 Movable Book Society conference (See [conference agenda](#)).

Additionally, my research in nontraditional books led me to an interest in treasure bindings, books bound in precious metals, gemstones, or ivory carvings. They are rare, priceless artifacts usually only viewed from behind glass. My project aims to use photogrammetry to create 3D models for museum online collections and print replicas to be used for tactile experiences, providing access to visually-impaired museum patrons, and for educational purposes (See "Re(p)lic(a): Making 3D Prints of Treasure Bindings to Explore Historic Bookmaking Practices" MLA 2018).

Qualifications, Experiences, and Expected Contributions

My first formal educational experience with bookmaking was in "Bookmaking and Design" at the University of Florida with Professor Ellen Knudson. She taught the class how to make several different book structures, including star, accordion, flag, as well as different techniques of binding like perfect, and link and Coptic stitching. Professor Knudson then oversaw my university scholars project on making a limited letterpress edition of a short fictional story about William Blake's adolescence. She taught me how to digitally design my own font, prepare ink, and design and use photopolymer plates for letterpress. In Professor Knudson's "Letterpress" course, I learned how to set type, carve linoleum cuts, and print on a Vandercook press.

I have also enjoyed making books for courses in children's literature. I first made miniature books inspired by Maurice Sendak's *Nutshell Library*. The first is an alphabet book, *Grandma's Desserts*, and the second is a pop-up counting book, *Delectable Desserts*. In the course "Into the Archive," we studied data visualization, so I created a pop-up book that visualized how pop-up Cinderella books evolved. The curator of the

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Baldwin Library of Historical Children's Literature, Suzan Alteri, and I proposed and received a grant for a Toy and Movable Books internship to create digitizations of historical movables from Dean and Son, Lothar Meggendorfer, and Ernest Nister.

My first formal educational experience with emerging technologies was in "Sensors and Electronics-Based Art," where we learned to work with LilyPad and Arduino Unos, conductive thread, LEDs, piezos, flex and blow sensors. With this experience, I later became co-creator of the "Introduction to Arduino" workshop series at the Marston Science Library. I have also led Arduino workshops for local middle- and high-school students at Girls Tech Camp and Gator Computing Camp. I also served as the Emerging Technologies intern at Marston Science Library where I created video and online tutorials for Arduinos and 3D printing.

I also incorporate my interest in book history and emerging technologies into my pedagogy. I designed and taught the course "The History (and Future) of the Book," where students read *The Book History Reader*, learned to make a limited edition of books, and wrote proposals on the future of the book. Students have also designed books as their final creative projects in my "American Children's Fantasy Literature" course, and as an exercise on picturebook adaptation in my "Disney Then and Now" course.

I look forward to contributing in any way I can to this summer institute, whether it is by sharing my knowledge of bookmaking and emerging technologies or my experience teaching the material book in composition and literature courses. I am also eager to learn from and potentially collaborate with other participants.

Anticipated Participation Accomplishments

I am looking forward to exploring and learning more from the rare books collections, especially gathering inspiration from the contemporary artists' books at the University of Utah. I anticipate coming away from the course with four creative book projects, not only revisiting sewing signatures and case bindings, but also learning more about digital publishing, building on bibliocircuitry, and experimenting with the book form. I also hope to come away with a broader understanding of the research happening in book history and digital humanities to incorporate in my own research and pedagogy.

Independent Project Related to Professional Responsibilities

The opportunity to work on my current project would be invaluable. My plan is to make physical books and digital versions and compare the processes and outcomes. My first step is to create a touch-and-feel board book using pasted textures, thermochromic pigments, and sound and smell elements. I then want to develop a touchscreen app mimicking the interactivity. My second book will be a pop-up book of campus landmarks and I will digitize it using volumetric captures. My third book will be a contemporary treasure binding using silver metal clay and luxurious fabrics and I will 3D scan and print replicas. Most of all, I would treasure the opportunities to read, reflect, learn, discuss, make, and write books with colleagues that are also passionate about the material histories and digital futures of the book.