North Carolina Libraries

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Library Safety

Librarians have long been on the front lines dealing with the public. Libraries function as both a place of refuge and a symbol of governmental authority. As such they have become magnets for people with behavioral issues and gripes against authority. Recently in a number of high-profile instances public service staff have been injured or killed working in or near their library. I recall a number of years ago, being attacked on the street by a disturbed individual one block from the library where I worked. The individual claimed that I was watching him through eyes in the back of my head. He pulled out a knife and moved toward me in a menacing way. I quickly suggested to him that the person on the other side of the sidewalk also had eyes in the back of their head. Momentarily distracted, I was able to quickly run away. The person ended up stabbing another person several blocks away as the police pulled up. The incident forever changed the way I view other people approaching me. It reminds me that I must always be on the alert in the library to the people around me. This is a reactive approach to the situation what we can also do is a proactive approach and take steps to make our workplaces more secure. Even in the safest places we need to be aware of risks.

There are several ways library places can be made safer in the end. Guards of course can provide some level of protection, but they can't be everywhere all the time. Recently when I had a patron get sick I rang up our guard station, but they were out on patrol, so I had to call the police (our guards carry police contact radios). I know one library that has a six-foot-three, ex-military support staff member who helps with problem patrons. Training staff is important. Having "active shooter" drills help staff remember what to do in case of trouble. Be informed about what to do. If you see something, call it in. Always be on the alert for possible dangers. Learn where at least two nearby exits are and know how to get their fast if need be. Be thinking about what your library could do to help disabled patrons/staff escape. During an active incident: "Run, Hide, Fight" as needed. A suggestion I had not thought of, but makes great sense, is to not hide in groups. Groups make it easier for someone to kill large numbers of people. Spread out as much as possible. Stay safe and obey the instructions of security forces. The library I work at has installed security buttons on phones. All you have to do, is press the button and the police respond. You don't have to say anything over the phone. This could be a help if needed.

Having said this, we don't need to become afraid of coming to work in the library. Libraries are still very safe places to work for the most part. Be aware of your surroundings but like any place open to the public that safety can be compromised and plan your escape route if needed.

Plummer Alston Jones, Jr., Professor, Library Science, East Carolina University

From Marginalized Migrants to Permanent Residents of North Carolina: How Libraries and Latinos Are Collaborating to Build Multicultural Communities in the Tar Heel State

There is a need for more education on understanding the role of Latinos from Mexico and Central America in the United States in general and in North Carolina particularly. The following history provides a framework for understanding the role North Carolina libraries have played in the transformation of Latinos from temporary migrants, working primarily in agriculture, to permanent residents, contributing to the economic well-being of North Carolina in wide-ranging economic venues from construction and housing to food-processing.

The modern history of Latinos in North Carolina does not begin until around 1970, but there are turning points in U.S. history much earlier that have had a great impact on their eventual migration to and settlement in North Carolina. These earlier laws, treaties, and court rulings must be understood in order to get the total picture of the transformation of Latinos and the beginning of a new era in multiculturalism in North Carolina, and how libraries have worked with Latinos in this process.

From the Naturalization Act of 1790 to the Treaty of Guadalupe Hidalgo of 1848

From the very beginning of the United States, immigrants were able to become naturalized citizens according to the Naturalization Act of 1790, if, and only if, they were white persons.

Notwithstanding this racial prejudice embodied in one of the first laws of the newly founded United States of America, there were several historical events that paved the way for Latino migration to North Carolina, beginning as early as the Mexican-American War of 1846-48. President James Polk, a native North Carolinian himself, claimed vast amounts of former Mexican territory as the spoils of war in the Treaty of Guadalupe Hidalgo, including the present-day states of Arizona, California, Nevada, New Mexico, and Utah.[1]

Federal Courts Address Racial Status of Mexicans Displaced by the Mexican American War of 1846-48

It was not until 1897 that federal courts addressed the racial status of these displaced Mexicans, who originally became part of the American nation after the annexation of southwestern territory conquered in the Mexican-American War. These Mexicans were made citizens, and thus implicitly declared white persons by way of their descent from Europeans, via Spain. Their Indian ancestry was for the moment laid aside. This legal action secured the loyalty of numerous large landowners, especially in resources-rich California.

While many of the displaced Mexicans felt pressure to move south, others were pressed into labor by U.S. companies moving into the newly ceded territories. These companies also sent recruiters to Mexico throughout the nineteenth and early twentieth centuries to locate laborers to build railroad tracks, pick crops, and clear land for new towns and homesteads in the new territory. As displaced persons with questionable status, who had only a poor nation to return to, many Mexicans stayed where they were to take advantage of these new work opportunities.

U.S. Border Patrol Impedes Migration from Mexico

On the popular level, Mexican "whiteness" was hotly contested. Political agitation to drop them from the citizenship list failed, but after 1924, when the U.S. Border Patrol was established, the federal government worked to impede their entrance by leveling a head tax on Mexicans entering the country and by denying visas on the grounds that they could not be assimilated and would become dependent on public assistance.

Need for Mexican Migrant Farm Workers During and After World War I

Toward the end of World War I, the need for agricultural laborers increased due to the absence of men serving in the armed forces. The U.S. and Mexican governments together created a guest worker program to allow U.S. farmers to hire Mexican laborers on a temporary basis. In the 1930s, as the

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1. David A. Gerber, *American Immigration: A Very Short Introduction* (New York, NY: Oxford University Press, 2011), 33.

U.S. economy began to suffer from what would later be called the Great Depression, many Americans rather than welcoming the much-needed labor began to accuse Mexican newcomers of taking their jobs and calling for them to go home, not realizing, of course, that many of them were legally home already. This anti-immigrant sentiment led to the establishment of more restrictive immigration measures.[2]

The continuing demands for agricultural laborers in the Southwest region of the United States meant that Latino migrants continually crossed the porous U.S.-Mexico border to find employment in the grape fields and orange groves. The U.S. Immigration and Naturalization Service did not have enough Border Patrol agents at that time to prevent this heretofore unregulated and familiar migration pattern.

World War II, Creation and Demise of the Bracero Program, and the Beginning of the Era of Undocumented Immigration

During World War II, the policy toward Mexican migrants was once again reversed because of the shortage of agricultural labor and related work in canneries. To aid the agriculturally dependent states like California, in 1942, the U.S. and Mexican governments created a bilateral but temporary contract labor program called the Bracero Program, a term that comes from the Spanish word for "arms."

Over the next twenty years or so, the Bracero Program continued, although very few braceros came to North Carolina. The Bracero program, however, was critical to the establishment of Latino communities in the United States that would later became

part of migrant networks that would one day reach North Carolina. The Bracero program officially ended in 1964 due to a lack of a regulatory structure to provide oversight of the hiring, payment, and treatment of workers. With the termination of the Bracero Program, legal avenues to migrate to the United States decreased significantly while the need for migrant labor continued unabated. Needing employment, Mexicans continued their journeys northward to the United States, thus beginning the era of growing undocumented immigration.[3]

1965 Immigration and Nationality Act (INA) Allows Latinos to Migrate to North Carolina

In 1965, during the Johnson administration, the U.S. Congress passed the INA, which abolished the national-origins system quotas enacted by Congress in 1924 that had favored European immigration from Germany, Scandinavia, the United Kingdom, and Ireland. The INA prioritized family reunification and designated an unlimited number of visas for immediate relatives of U.S. citizens. Asians, and Latin Americans gained more equal access to visas and citizenship for the first time in U.S. history.

The INA paved the way for Latinos who had previously worked in the Sun Belt states as agricultural laborers to come to North Carolina to do the same kind of work and perhaps to get employment in other growing segments of the economy, including the meat- and poultry-processing industries. Beginning in the 1970s, Latinos began to find hospitable destinations in urban cities of the southeastern states. Atlanta, Charlotte, and Miami beckoned with

new opportunities in the manufacturing and agricultural sectors. North Carolina, being not far geographically from Florida, where migrant farm workers had picked oranges for decades before, was becoming a new destination for Latinos.

1986 Immigration Reform and Control Act (IRCA) Provides Impetus for Latinos to Become Permanent Residents of North Carolina

The shift of Latino migration to North Carolina was also due in part to IRCA, passed by the U.S. Congress during the Reagan administration. The IRCA included measures to facilitate immigration not only to North Carolina, but also many other destinations throughout the country where work opportunities existed. On the other hand, IRCA introduced new restrictions, heightened border controls, and created more punitive systems for employers who hired undocumented immigrants. IRCA, by making it more difficult for Latinos to continue their cyclical seasonal migrations, ironically provided the impetus for many Latinos to settle permanently in the United States.

The most controversial measure of IRCA provided amnesty for about three million undocumented Mexican and Central American migrants living in the United States, who could prove that they had lived or worked in the country for extended periods. As newly naturalized U.S. citizens, these Latinos had the opportunity to petition the U.S. Immigration and Naturalization Service for visas for family members and together strengthen migrant networks to aid other family and friends to join them in North Carolina. Although

2. Hannah Gill, *Latino Migration Experience in North Carolina: New Roots in the Old North State*, 2nd ed., rev. and exp. (Chapel Hill, NC: University of North Carolina Press, 2018), 57-58

3. Gerber, *American Immigration*, 33, 57-58; Gill, *Latino Migration*, 59.

amnesty succeeded in slowing the flow of undocumented immigrants, it infuriated nativists who were opposed to Latino migration period.

Many immigration officials ignored the new provisions of IRCA. When visas were not adjusted to meet labor demands and the IRCA provisions promising the chance of family unification, undocumented immigration increased, reaching unprecedented numbers in the early twenty-first century. Migrants were ironically blamed for taking advantage of the provisions of IRCA, the law of the land. It is instructive to note that the immigration reforms of 1965 and 1986 affected other immigrants to North Carolina, not only Latinos, but also Asians, including South Vietnamese, Hmong, and Cambodians, Middle Easterners, including Syrian and Lebanese, and African immigrants and refugees.[4]

Libraries Begin to Collaborate with Latinos to Build Multicultural Communities in North Carolina

Beginning back in the 1970s and forward, the majority of new immigrants to North Carolina were Latin American in origin, including Mexican farm workers, university students from Colombia, Chile, and Peru, and Puerto Rican families on military bases in the eastern part of the state, including the Army's Fort Bragg, the Air Force's Seymour Johnson base, and the Camp Lejeune base of the Marine Corps. During this same time period, migration of Central Americans from El Salvador, Guatemala, Honduras, and Nicaragua became more extensive as people fled political, humanitarian, and

> **" ...researchers found that 26% of Hispanic respondents had used the public library at least monthly, with 40% reporting use in the past year. "**

economic crises in those countries. During the thirty-year period from 1970 to the turn of the twentieth century, Latinos continued to settle in North Carolina in larger numbers and in the process strengthening migration networks that connected them to Mexico, Central America, the historic Southwest communities, and the Southeast states of Georgia, Tennessee, and Virginia.[5]

By the mid-nineties, the *Charlotte Observer*, serving North Carolina's largest metropolitan area, reported that state officials had documented that public school enrollment of Latinos grew 285 percent from 1990-91 to 1997-98, with Mecklenburg County, jumping from 740 students to 2,813, Cumberland County, from 1,328 to 2,454, and Onslow County, from 457 to 822. Hispanics were arriving in Charlotte at a rate of 12 per day. English as a Second Language (ESL) programs served 1,478 students speaking 48 different languages in ESL classes, with Spanish as one of the most common languages.

First Latina Librarian Hired by Public Library of Charlotte & Mecklenburg County (PLCMC)

In October 1997, to meet this demonstrated need for library services to Latinos, the PLCMC hired Irania Macias Patterson as Bilingual Children Specialist as part of the Early Intervention Reading Program for Hispanic/Latino families, funded in part by the Foundation of the Carolinas through

their new Building a Better Future grant program. The program provided low-income Hispanic children 18 months through 4 years of age and their families with reading readiness and language experience in both Spanish and English.[6]

State Library of N.C. Investigates Expansion of Services to Spanish-Speaking Communities

In 2000, due to the increase in Latino migration, the State Library of North Carolina contracted with the consultant firm Rincon and Associates to produce a study on the library needs of Hispanics living in North Carolina. Based on 1,003 telephone interviews, the researchers found that 26% of Hispanic respondents had used the public library at least monthly, with 40% reporting use in the past year. The study indicated that the most influential factors affecting library use were proximity to a library, and strong parental support of children under eighteen years of age for learning English-reading skills and pursuing higher education.

That same year, John Sudell found similar findings in his research on library service to Hispanic immigrants, specifically in Forsyth County. These studies indicated that there were Mexican and other Central American immigrants in North Carolina well before the turn of the twentieth century, although library services for this population were limited or at least not reported in the library literature.[7]

4. Gill, *Latino Migration*, 60-61.

5. Ibid., 62-63.

6. Irania Macias Patterson, "Charlotte Public Library Speaks Espanol: Approaching the Hispanic Community through Storytelling." *North Carolina Libraries* (Winter 1998): 145-147. Article includes statistics from the July 2, 1996, issue of the *Charlotte Observer*.

In 2001, it was clear from Frances Flythe's research based on interviews with seventy-one Hispanic immigrants in Durham County, North Carolina, that only 22% had used the library at some time. Her research showed that the barriers to public library use by Latinos included cultural unfamiliarity with libraries, language barriers due partially to low education and literacy levels, and an overall mistrust of government agencies.[8]

U.S. Department of Homeland Security (DHS) Established and Immigration Reform Languishes

In 2002, in reaction to the 9/11 disaster, the new DHS was established to deal with immigration, terrorism, response to natural disasters, and a host of other responsibilities formerly administered by several federal agencies. In 2007, in the midst of wars in Iraq and Afghanistan, the U.S. Senate passed a Comprehensive Reform of Immigration bill, which had the potential for fixing the immigration process, particularly with regard to the issue of undocumented immigration, but it languished and died without approval from the U.S. House.

The Deferred Action for Childhood Arrivals (DACA) Act

In 2008, the DACA Act was passed by the U.S. Congress during the Obama administration to protect underage children from trafficking in Mexico and to allow them asylum. This group, composed of the former children of immigrants, who had been brought into the United States contrary to U.S. immigration policy, but through no fault of their own, were referred to as the Dreamers, who advocated a path to U.S. citizenship based on the fact that they were already in the United States.[9]

NCLA and the Short-Lived Carolina Chapter of REFORMA

From 2000 to 2008, the North Carolina Library Association (NCLA) showed its support to establish a chapter of REFORMA (National Association to Promote Library and Information Services to Latinos and the Spanish Speaking) under the auspices of the NCLA Roundtable on Ethnic and Minor Concerns (REMCo). The leader in this movement to form a chapter of REFORMA within NCLA and also to include the South Carolina Library Association (SCLA) was Robin Imperial of the Eastern Regional Branch of the Wake County Public Libraries. The new entity would be known as the Carolina Chapter of REFORMA. Imperial and other leaders did the ground-breaking work, gathered statistics and other materials to support their case, and presented them to REFORMA and the Carolina Chapter was recognized nationally.

The leaders of the newly formed Carolina Chapter soon learned that doing anything out of the ordinary and particularly as a bi-state venture was much more difficult than originally planned for. Participation and planning ended up in the hands of only a few dedicated and persistent "Reformistas" like Imperial, who also sought the help and advice of long-time nationally recognized Reformistas, notably Yolanda Cuesta of Sacramento, California, and Garza de Cortes, REFORMA president in 2001, whom Imperial had earlier met at the 2001 NCLA Biennial Conference in Winston-Salem. Imperial believes that the economic downturn of 2008-2009 accounted for the seeming lack of interest. Imperial was proved correct in her assumption as she witnessed firsthand the similar trials of the DC (District of Columbia) Metro Chapter shortly after she moved from the Cumberland County Public Library & Information Center in Fayetteville, North Carolina, to the Petworth Neighborhood Library of the DC Public Library to serve as manager.

In North Carolina, librarians concentrated more on local concerns of helping mainly Mexican migrants, and the DC Metro Chapter focused on meeting the information needs mainly of Central American migrants. There has been no movement to resurrect the Carolina Chapter of REFORMA, which the REFORMA website lists as inactive. Further research into cooperative ventures between state library associations and REFORMA will be welcomed as valuable contributions to the library literature of library services with Latinos. North Carolina librarians working with Latino migrants will continue to work with organizations within the NCLA, like REMCo. Librarians who have the funds will also seek individual memberships in REFORMA.[10]

7. Rincon and Associates, (2000), *Survey of Hispanics in North Carolina*, accessed Dec. 7, 2018, http://statelibrary.dcr.state.nc.us/hispanic/index.htm; John Sudell, "Library Service to Hispanic Immigrants of Forsyth County, North Carolina: A Community Collaboration, in *Library Services to Latinos: An Anthology*, ed. Salvadore Guerena (Jefferson, NC: McFarland, 2000), 143-68; see also, Susan K. Burke, "Use of Public Libraries by Immigrants," *Reference & User Services Quarterly*, 48(2) (Winter 2008): 164-174, accessed, Dec 5, 2018, https://www.jstor.org/stable/20865036.
8. Frances H. Flythe, "Identification of the Information Needs of Newly Arrived Hispanic/Latino Immigrants in Durham County, North Carolina, and How the Public Library May Address Those Needs," Master's paper for the M.S. in L.S. degree, University of North Carolina, Apr. 2001.
9. Gill, *Latino Migration*, 166-170.

The DREAM Act Is Thwarted by ICE and Municipal and County Enforcement Agencies

In December of 2010, the U.S. Congress voted on the proposed DREAM (Development, Relief and Education for Alien Minors) Act. It passed the U.S. House by a margin of 216-198. However, in the U.S. Senate the DREAM Act was defeated. On December 8, 2010, a majority in the U.S. Senate, including North Carolina Senator Kay Hagan, voted in favor of ending debate on the DREAM Act.

In 2014, the 2008 law was again challenged in light of massive immigration of children, some with their mothers, to flee brutal regimes, gangs, and drug cartels in the Central American nations of Honduras, Guatemala, and El Salvador. By 2015, the North Carolina Legislature passed a law to penalize so-called sanctuary cities, which opted out of participation with ICE, the Immigration and Customs Enforcement division of DHS.[11]

During 2016, ICE established the ACCESS 287(g) program, which enabled participating local law enforcement authorities to check the immigration status of anyone arrested and to hold undocumented suspects for deportation proceedings. As of March 2017, thirty-seven agreements were in place in sixteen states, including North Carolina, which had been at the forefront by its support and implementation of the ACCESS 287(g) program. Eight of the state's one hundred county sheriffs' offices, including those of Alamance, Cabarrus, Cumberland, Gaston, Guilford, Henderson, Mecklenburg, and Wake Counties, along with the Durham Police Department, implemented these agreements. North Carolina had the second highest number of 287(g) agreements in the nation, following Texas.[12]

The Integration Model for Building Multicultural Communities Is Realized

By contrast some North Carolina municipalities have worked toward the actual integration of Latino residents rather than their attrition. Local government leaders in Charlotte, Greensboro, High Point, Burlington, Greenville, Winston Salem, Sanford, Chapel Hill, Carrboro, and Siler City have initiated programs, including library and literacy services, to improve communication, services, and civic engagement and leadership opportunities for immigrant and refugee residents. These efforts were in response to the reality of demographic change and the permanence of Latino communities in North Carolina and elsewhere in the United States.[13]

Hannah E. Gill reports in her study of Latino migration to and settlement in North Carolina has documented that the majority (56 percent) have U.S. citizenship because they were born in the United States. The rest (44 percent) are either naturalized citizens, legal permanent residents, or visa card holders. North Carolina's undocumented immigrants, an estimated 284,000 people, make up part of an estimated eleven million people living in the United States who are not authorized to be present and/or to work.

The majority of Latinos in North Carolina are of Mexican descent: two-thirds are from Mexico or have Mexican ancestry, followed by Central American migrants from El Salvador, Honduras, Guatemala, and Costa Rica. Contrary to public opinion, not all Latinos speak Spanish. Some groups of indigenous Mexican and Central Americans speak Mayan, Nahuatl, and/or Purepecha as their first languages.[14]

When President Donald Trump was inaugurated in January 2017, he ordered that sanctuary cities for Latinos that refused to cooperate with the federal government to facilitate deportations would lose their federal funding. He directed the DHS to build a wall on the U.S.-Mexico border, hire 5,000 new U.S. Border Patrol agents, and construct new detention facilities. In August 2017, Trump set a deadline for the expiration of the DACA Act. He challenged Congress to come up with a solution for the already registered Dreamers, recipients of the protection proposed in the DREAM Act.

Democrats in Congress opposed all attempts to terminate the DACA program as well as the building of the wall and detention facilities at the U.S./Mexico border. Congressmen on both sides of the aisle voiced support for Dreamers, including Thom Tillis, the U.S. senator from North Carolina. In September 2017, Senator Tillis announced that he would reintroduce the DREAM Act legislation in response to polls indicating that a majority of Americans supported a path to

10. Author's e-mail correspondence with Robin Imperial, Lamond-Riggs Branch of the District of Columbia Public Library, Oct. 4, 18, 22; Nov. 20, 21, 27, 28; Dec. 11, 18. See also, Yolanda J. Cuesta, "From Survival to Sophistication: Hispanic Needs=Library Needs," *Library Journal* 115 (May 15, 1990), 26-28, & Yolanda Cuesta & Patricia Tarin, "Guidelines for Library Service to the Spanish-speaking, *Library Journal* 103 (July 1978), 1350-1356; and REFORMA (The National Association to Promote Library & Information Services to Latinos and the Spanish Speaking): Chapters, accessed Jan. 28, 2019, https://www.reforma.org/content.asp?pl+2&sl=106&contentid=106.

11. Gill, *Latino Migration*, 7, 172-73.

12. Ibid., 5, 71-78, 175-77.

13. Ibid., 7-8.

14. Ibid., 3.

legalization for Dreamers and other comprehensive immigration reforms. North Carolina Attorney General Josh Stein joined fifteen other states in a lawsuit challenging Trump's plans to cancel the DACA program. Courts throughout the United States blocked Trump's funding restrictions for sanctuary cities.

In August of 2018, the Trump Administration enforced a new policy of zero tolerance. The enforcement of this strict interpretation of the original immigration legislation put in place during the Obama Administration resulted in separating mainly Central American families who crossed the U.S.-Mexico border in search of asylum. Often the parents were deported, while their children remained in detention centers in the United States. Many children and parents have not been reunited even as the country, as a whole, has expressed its collective condemnation of this brutal policy.[15]

To counter this negativism toward immigrants, public schools and their libraries have also played a significant role in welcoming Latino children to their classrooms and media centers. One exceptional example, given by Gill in her study of Latino communities in North Carolina, was the Southern Alamance Elementary (SAE) School in Graham, Alamance County, which had ironically been one of the several North Carolina counties that had supported the implementation of ICE's ACCESS 287(g) program.

The SAE made a firm stand against this policy. The SAE community viewed Latino children and their families as people with new ideas, new talents, and new skills. Putting their more integrative, diverse philosophy into action, the SAE school administrators created a dual-language "Splash"

program, which provided more than three hundred kindergarten through fifth-grade students with instruction and immersion in English and Spanish. Half of the students at SAE are native-English speakers, and the other half are native-Spanish speakers.

SAE was able to employ teachers from Latin American through the J-1 visa program. This enables these teachers to teach in accredited U.S. schools. This unique educational model addresses the needs of native-Spanish-speaking students who require additional support in learning English but also provides a rare opportunity for native-English-speaking students to learn another language from a very young age, the very best time for students to attain language fluency. The forward-looking SAE school administrators realized that Spanish is the second most widely spoken language in the world and that being able to speak it has become an important skill for immigrants seeking jobs not only in North Carolina, but throughout the United States.

SAE discovered that native-Spanish-speaking students in the dual-language program learned English faster than their counterparts in the ESL program, the standard program available to most school students in North Carolina public schools. ESL programs focus on assimilating students into English language courses as quickly as possible with no instruction in their native language. SAE's dual-language program enhanced students' social skills, leadership capacities, and respect for others.

Further proof of the educational efficacy of the dual-language program is found at Selma Elementary School in Johnston County, North Carolina, where students in the "Splash" model program significantly outperformed

their peers in traditional classes by achieving proficiency levels two to three times those of traditional students. This research-based approach holds great potential for supplementing the ESL model for Latino elementary students in North Carolina.[16] More research is needed to document other collaborative efforts in school as well as public libraries to reach Latino students.

Libraries Support Creation of Multicultural Communities in N.C.

At the federal level, Democrats in the midterm elections of 2018 successfully secured a Democratic majority in the U.S. House of Representatives as well as increasing the number of governorships of many states, but did not gain control of the U.S. Senate. Negotiations on the DREAM and DACA Acts have taken second place to discussions regarding Russian interference in the 2016 presidential election, however, there is one note of hope: the Supreme Court of the United States will take up the DREAM and DACA Acts in the fall of 2019.

Librarians must transcend this negativism regarding immigration to the United States by continuing their commitment to provide unbiased information to educate state legislators as well as the North Carolina citizenry at large about the status of Latinos. Libraries must continue the essential work of providing adult literacy in English programs and an emphasis on the importance and benefits of citizenship, while encouraging Latinos to take pride in and document their native cultures. This advocacy for Latinos' access to libraries and other educational institutions is critical for building diverse multicultural communities in North Carolina.

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15. Ibid., 172-73
16. Ibid., 175-79.

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Student Use of Library-Provided Materials in EdD Dissertations

One of the tools collection managers can use to guide the selection and retention of books and journals is citation analysis. Although time-consuming to collect and analyze, citations by library users provide compelling evidence for keeping certain titles or growing collection support for specific subject areas, and may provide a good sense of which materials may be safely weeded. In addition to these purposes, citation analysis can give an indication of how well the collection is meeting the needs of the students and faculty of the home institution.

As Ashman (2009) points out, the majority of citation analyses focus on the literature of a discipline, by particular user groups, and/or by format. In fact, many are undertaken to evaluate library collections by focusing on highly-used serials and the relative breakdown of citations to serial versus monographic literature. One particular group of authors often studied are graduate students who produce theses and dissertations, and they are studied from single or multiple institutions as well as individual fields, interdisciplinary, and multidisciplinary studies. Well-known examples of these kinds of citation analyses include a study of Workforce Education and Development theses and dissertations by Waugh and Ruppel (2004), Kuyper-Rushing's (1999) study of music dissertations, Buttlar's (1999) examination of library and information science dissertations, and an analysis of philosophy dissertations undertaken by Herubel (1991). Nearer to the subject of the present study, citation analyses of theses and dissertations in the field of education have been conducted by Haycock (2002), Condic (2015), and Griffin (2016).

Another area of interest for researchers has been whether there is congruence between the materials cited by graduate students and those cited by their faculty. McCain and Bobick (1981), Edwards (1999), and Knievel (2013) indicate overlapping interests between graduate students and their faculty advisors, and Zipp (1996, 340) finds that thesis and dissertation citations "are better indicators of faculty use than has been previously assumed." The advantage for collection managers would be in confirming that the titles they identify would serve multiple local user communities.

Although some authors of citation analyses have used resulting journal lists to validate the subscription decisions for their host library, Beile, Boote, and Killingsworth (2004) issue a cautionary finding: dissertation writers seem much more likely to cite materials that are available locally than to include items only available to them by interlibrary loan or other means. This finding suggests that that librarians should not be too quick to judge the success of library collections based solely on what materials are cited in theses and dissertations. Accepting the caveat, though, citations do provide valuable insight into what library materials are getting used. As Sherriff (2010, 165) describes them, citations are "objective quantitative data" which can contribute to collection management decisions, and the citation analysis itself is an unobtrusive method which complements information drawn from other methods (Sylvia, 1998).

Background

East Carolina University enrolled approximately 26,500 students for the Spring 2019 semester, and employed about 2,000 faculty members. The University offers more than 70 master's degree programs, 13 research doctoral programs, and six first professional programs (AuD, DMD, DNP, DPT, EdD, MD). The College of Education, whose EdD graduates are the subject of the present study, awarded 650 of the 6,664 graduate and undergraduate degrees awarded during the 2017-2018 year. EdD graduates accounted for 24 of them last year, and 135 over the prior eight academic years (ECU Fact Book).

ECU's College of Education participates in the Carnegie Project on the Education Doctorate (CPED), which has a direct bearing on the Ed.D. students' course of study and subsequent dissertation. The CPED framework is designed to produce "Scholarly Practitioners" who "use practical research and applied theories as tools for change" as they solve local and contextual "problems of practice." Consequently, the dissertations produced by EdD graduates are expected to be scholarly works which "[impact] a complex problem of practice" ("The Framework" 2019).

The College of Education is served by J. Y. Joyner Library, which offers access to some 2.6 million titles, roughly 450 databases, and about 90,000 online journals. The number of physical items in the general stacks is just under 690,000, and print

monographs in the L's make up a modest proportion of the items at about 35,000. Library collections have benefited from opportunities at times during the last ten years to purchase online backfiles for many of the publisher packages, and has managed to maintain current publisher packages for the five largest journal publishers. Although serials and databases are centrally funded, monographs are served by firm order funds, an approval plan, and both print and electronic demand-driven acquisitions (DDA) plans. Despite a few years of growth, the general trajectory of the monograph budget has been declining over the last decade, in part because the library has been using more of its financial resources to preserve serials and fulltext databases. The library has also seen monograph purchasing activity shift during the time period by adding and increasing DDA plans while reducing the approval plan and trimming firm order budgets.

Purpose

With the changes in the library's acquisitions budgets and purchasing patterns, the authors wanted to confirm materials support for one of the most prominent programs on campus. In order to gauge that support, we decided to gather and analyze the citations from the reference lists of 106 dissertations written by Ed.D. graduates of the Educational Leadership program during calendar years 2010 to 2016.

The objective of this analysis mirrors that of Iivonen et al. (2009) to demonstrate the impact of university library's collections on one department's research output by asking two central questions. First, how much of the materials they cited did the library provide access to? Second, for books and journals cited, does the library provide print or electronic access, or both?

Methodology

Hoffman and Doucette (2012) provided a review of citation methodologies, honing in on the most common approaches, to study the type of resources cited, age, frequency of journal titles cited, and library holdings. These same areas of interest were the focus of the current study. Citations from the bibliographies were extracted from all dissertations submitted to the College of Education, Department of Educational Leadership from the years 2010 to 2016. There were a total of 106 dissertations submitted during this time, with a total number of 14,284 citations across all dissertations. The average number of citations per paper was 135, with a range from 34 to 441. Citations were entered to Excel and first grouped by type, including Journal, Book (including chapters), and Other. Then, library access was checked to cited books, journal articles and issues, in the library's e-journal portal and catalog. Researchers were interested in library collections' access to books and journals cited, including the format offered, the number of times individual journal titles and books were cited, whether the library owns alternative editions of non-owned books, and the ages of the items cited. The age of item cited was calculated by noting the year of the dissertation and subtracting the copyright year of the publication (which could result in an age of 0). Researchers were also interested in whether the library has current access to unique journal titles, especially those which were highly-cited in the present study.

A limitation on the current study is that library holdings may have changed since the first dissertations were being written to the time the study was conducted. In particular, cited books may have been weeded or added, print journals have been weeded, and online journal access may

have changed, due in part to aggregator access. For online journal access, the reported results do not distinguish between subscribed or aggregator access.

Results

The dissertations' 14,284 citations were divided into Journals, Books, and Other. The largest usage category was for Journals with 6,209 article citations (43% of the total citations); Books and chapters accounted for 3,996 citations (28%); and Other citations numbered 4,079 (29%). Citations will be broken out below by category, to examine in particular library-provided access to journals and books, the format of access (online, print, or both), the age of the items, and duplication among titles cited, among other indicators specific to journals and books.

Journals

Of the 6,209 journal citations, the library provided access to 5,803, or 93%, of those citations, and offered no access to 406, or 7% of the citations. Electronic format was available for 5,203, that is, 84% of the total number or 90% of the library-provided 5,803 citations, and both print and online formats are available for 502 citations, or 8%, while the library offers print holdings only for 98—less than 2%. See Table 1: Format for Library Holdings by Citation.

These 6,209 citations refer to 1,380 unique journal titles. Online access is by far the most heavily used format, accounting for all library holdings for 1,022 of these titles. Joyner offers both print and online for 90 titles, and only print for just 25 of the 1,380 individual titles. For 243 titles, the library did not offer any of the cited articles. See Table 2: Format for Library Holdings by Journal Title.

Further, for 1,099 of the titles, we own all of the cited articles, for another

Table 1: Format for Library Holdings by Citation

Format	Number of Citations	Percentage of Total
Online	5,203	84%
Both Print and Online	502	8%
Print	98	2%
Not Applicable/Not Held	406	7%
Total Number of Citations	6,209	

Table 2: Format for Library Holdings by Journal Title

Format	Number of Titles	Percentage of Total
Online	1,022	74%
Both Print and Online	90	7%
Print	25	2%
Not Applicable/Not Held	243	18%
Total Number of Titles	1,380	

38 we own some of the cited articles, and for only 243 does Joyner Library have no holdings at all. Of these 243 non-accessible titles, 190 of them were used only once. Conversely, the highest number of citations to a title not offered through the library's E-Journal Portal was 16, to the *Online Journal of Distance Learning Administration*. It is significant to note that the *Online Journal of Distance Learning Administration*, published by the University of West Georgia, is freely available online. While the library includes journals from the *Directory of Open Access Journals* and some other open access (OA) titles in the E-Journal Portal, not every OA journal is included. Of the 1,380 titles, the library maintains current access to 1,004, or 73% of them, while 376 are not current.

The most heavily used title is *Educational Leadership*, with 232 citations, followed by *Phi Delta Kappan*, with 139. The top 20 titles account for 24% of all citations, and the top 35 titles account for about a third of the use, at 32% of cited articles. Overall these

journals seem to be a good fit for the scholar-practitioners that a CPED program produces. Only 219 titles were used more than 5 times, and only 1/10th of the titles were used 10 or more times. Of the 1,380 titles, more than half—735—were used only once. Single use titles include newspapers, journals from other disciplines, and titles from specialized sub-disciplines of education. The list in the figure below offers "practical research and applied theories" which help the Ed.D. graduates demonstrate that theirs are "dissertations of practice" which are oriented toward solving local systemic problems, as the CPED intends. See Figure 1: Top 20 Titles by Use.

For both journal articles and books, the age of the item cited was calculated by subtracting the year published from the dissertation year. The average age for all article citations was 12.65 years and the median was 9, while the mode was 5. To reach 80% of articles cited, the age range would need to extend from zero to 18 years, although the usage by age drops off rather

dramatically after the median. For more information, see Figure 2, Age Distribution for Articles Cited.

Books

The EdD dissertations included 3,996 citations to books and chapters. There were occasions on which the same author cited multiple chapters within the same book; those were collapsed to a single entry on the book title. Varying editions were counted independently. There were 558 books which were cited by multiple dissertation authors, including across multiple editions. As expected, though, the largest number of titles, 2,324, were only cited by a single dissertation author. The overall number of unique titles, then, is 2,882. Of the unique titles, the library owned 1,351 (or 47%) and did not own 1,531 (or 53%). Across the 1,351 held titles, the library formats were 1,021 print only, 139 online, and 191 books were available in both print and online format. Since the corresponding percentage of print holdings is 76%, this shows a distinct
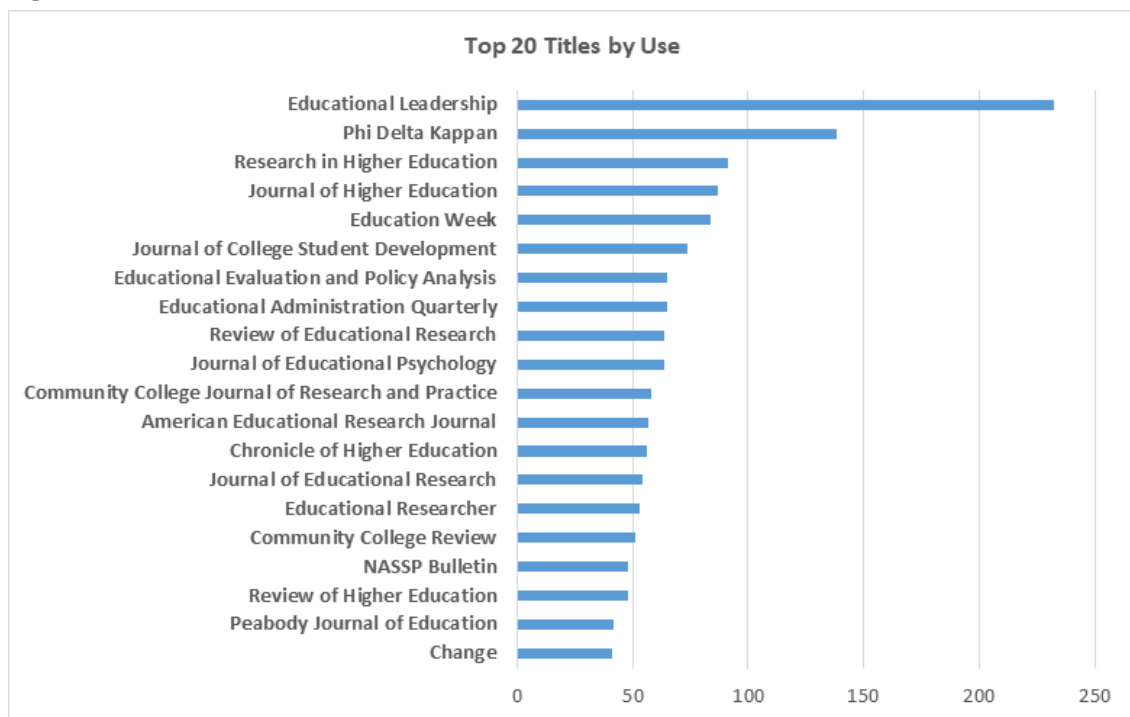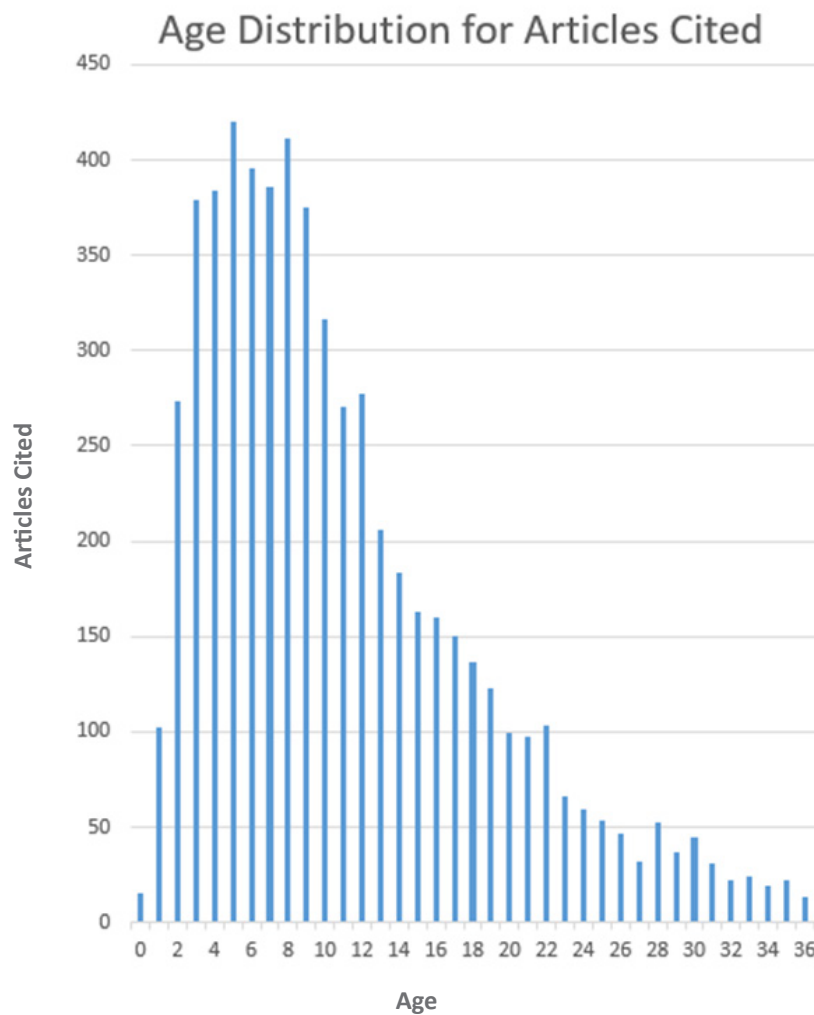
Figure 1

Top 20 Titles by Use

Figure 2



Age Distribution for Articles Cited

preference for print monographs, compared to journal usage. See Table 3, Format of Library Holdings by Book Title.

Of greatest interest to the authors are the 558 books which were cited by more than one dissertation author. For this subset, the library was more likely to own a copy: we held 316 of the 558, or 57%. Another characteristic of these books that the authors were interested in is, for books that had multiple editions cited, how often did the library own an alternative edition? It turns out, more than 70% of the time: there were 116 books not owned which included multiple editions, and of those, the library did own an alternate edition 84 times.

The age of books cited was somewhat older than that for journals: the mode was 8, while the median was 11. The mean was 15.7 years, and the standard deviation was 14.71. Book ages one to 23 captured 80% of the citations—this distribution is larger than the distribution of journal ages, confirming the need to be more cautious weeding books. See Figure 3, Age Distribution for Books Cited.

Of all items cited, only 34% were older than the mean, reflecting the skew of a relatively small number of the oldest books. The oldest book cited was *Webster's Dissertations on the English Language* (1798), at 216 years, and the next oldest was Philbrick's "The examination of graded schools" in *Educational Addresses and Pamphlets in Teachers College Library*, from 1876.

Figure 3

Figure 3: Age Distribution for Books Cited
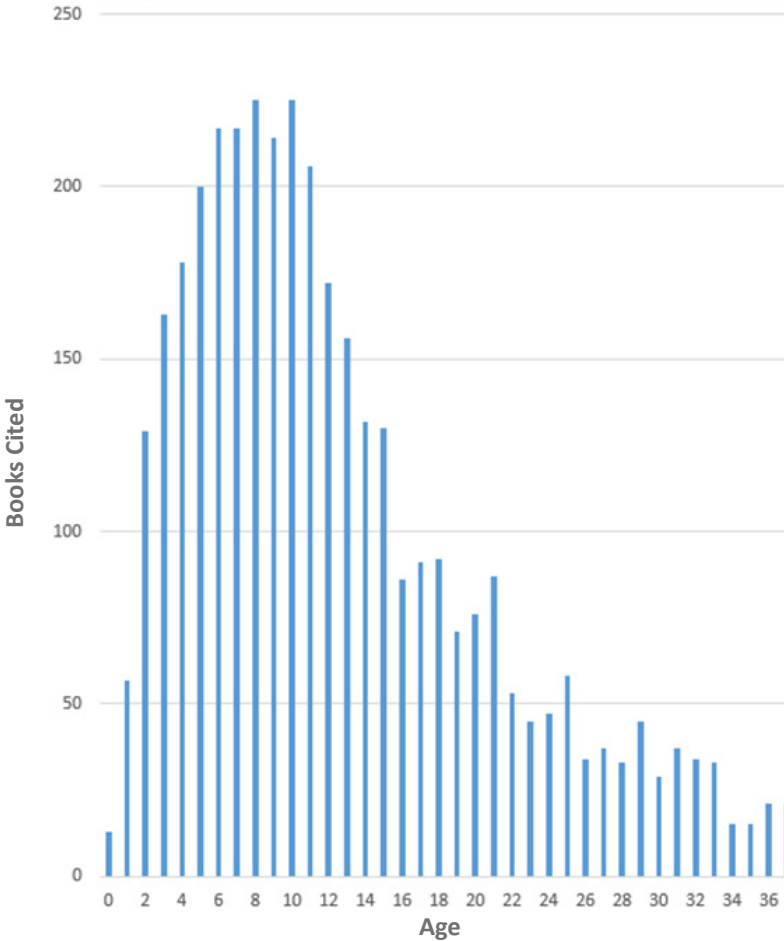
Dewey's "The Influence of the High School Upon Educational Methods" (1895) was the third oldest item. Other cited books now out of copyright included W.E.B. DuBois's *The Souls of Black Folk*, Taylor's *Principles of Scientific Management*, and works by Sigmund Freud (referenced in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*). Joyner Library provided access to only

8 of those 21 works, 6 in print. Many of them—including the ones that the library owns in print—are also available in Project Gutenberg and/or HathiTrust.

On the other end of the age spectrum, there were only 13 citations to books with zero age—that is, the item was published the same year the dissertation was submitted to the institutional repository. Out of these 13,

Table 3: Format of Library Holdings by Book Title

Format	Number of Book Titles	Percentage of Total
Online	139	5%
Both Print and Online	191	7%
Print	1,021	35%
Not Applicable/Not Held	1,531	53%
Total Number of Titles	2,882	

Joyner Library provide access to 4 of them (3 print and 1 online). And we provided access to 20 of the 57 book citations with an age of 1 year. Because the library was more likely to own books after one year, perhaps there was a lag in our firm order and approval processes.

Other

Items cited in the Other category included white papers, reports, websites, ERIC and other government documents, and theses/dissertations. The total number of Other citations, at 4,077, represents 29% of the total number of citations. The ERIC document citations often included a URL, confirming the authors' conjecture that they were accessed online rather than by using the library's fiche or ILL. Government documents cited included various reports from federal and state Departments of Education and some state statutes, among others. Regarding citations to dissertations and theses, Joyner Library does provide access to ProQuest's Dissertations and Theses Global, but this database is not a subject of the current study, and dissertations and theses may also be accessed from institutional repositories or other online sites.

Implications for Library Collections and Services

Studies like this can provide valuable information for making collection development decisions, such as showing the ratio of use for books versus serials, with implications for the monograph budget, considering new subscriptions or topics to cover for monograph selection, or weeding. The way the authors conducted the present study did not include Interlibrary Loan activity because we chose only to look at use of the existing collection.

Citation studies such as this one can also impact decisions for future subscriptions and/or weeding of existing journals. Of the 375 journal titles that the library does not currently subscribe to, the ones with the largest number of citations might be considered for new subscriptions. Fully 74%, 278 of these non-subscribed titles, were cited only once. Only 19 of these titles have more than 5 uses (fitting comfortably below an ILL threshold), and of those 19, we have embargoed access to 2; 5 of them have ceased publication; 2 are freely available online; and 9 have had a title change—to which we do subscribe. This leaves one journal to consider for a subscription. See Table 4: Non-Subscribed Journals Used More than 5 Times.

For weeding journals, collection managers can consider the mean, median, and mode of articles cited. As a reminder from above, the mean for all article citations was 12.66 years; the median was 9; and the mode was 5. The most aggressive weeding practice would not, then, weed any print journal volumes younger than 5, and the most conservative weeding practice would account at least for the mean, at 12.66 years, rounding up to 13.

Considering journals which the library holds in print (including journals held in both print and electronic formats), the average age goes up slightly 13.43 years. It is likely that the older age for cited print occurs at least in part because so many of our print journal subscriptions have been cancelled in favor of online, greatly decreasing the number of recent years available in print in the library. Based simply on the increased age of cited print items, though, librarians might try to retain at least 14 years when weeding print journal volumes. A more likely scenario, though, is that librarians at ECU would consider instead the median, at 9 years, when weeding print. This is similar to the "Aggregate Cited Half Life for Education and Educational Research journals" in the 2017 *Journal Citation Reports*, which was 9.1 years. The considerations for weeding books based in part on age were addressed above.

Retaining highly-cited journals in the event of a cancellation is another concern for collection management librarians. Of course, collection managers would also consult departmental faculty and additional resources, such as *Journal Citation Reports* alongside the highest cited titles from the dissertations. But if, as Zipp (1996) asserts, the most heavily cited journals by dissertation writers are also the most heavily cited by faculty, this citation analysis will provide good guidance. In examining highly-cited journals, the 80/20 Rule does not apply—first

Table 4: Non-Subscribed Journals Used More than 5 Times

Title Status	Number of Journals:
Ceased	5
Changed Title	9
Embargoed Access via existing database	2
Freely Available Online	2
Subscription Candidate	**1**
Total:	19

described by Trueswell (1969), this "rule" suggests that 20% of the journal titles would account for some 80% of the use. In several recent citation studies, though, the 80/20 rule is found insufficient; Nisonger (2008) suggests that Bradford's Law is more applicable. Beile, Boote, and Killingsworth (2004), among others, have found evidence in their citation studies for Bradford's Law to describe title dispersion. Specifically, Bradford's Law posits that serials may be divided into at least 3 "zones" of productivity in terms of numbers of articles cited that are central to the subject at hand, and the distribution would be 1 : n : n2 (in Nisonger 2008, 73). The present study also fits Bradford's Law: each third of citations requires exponentially more titles to attain. The top 35 titles capture 32% of all citations, at 1,986. The next 34% of citations, 2,101, are fulfilled by 159 titles. The remaining 34% of citations, 2,122, require 1,186 titles. For more information, see table 5: Journal Title Distribution by Number of Citations. The present study does not attempt to create a core list of journals for East Carolina University. However, the prevalence of publisher packages also has an influence to consider as collection managers determine which titles must be protected and which may be cancelled. Of the top 20-used journals, four are available to ECU students in aggregators, one (the *Chronicle of Higher Education*) is an individual subscription, two are in Project Muse, and the other 13 are found within publisher packages that the university

subscribes to. If the library were forced to break up these publisher packages, maintaining these as individual subscriptions would present additional challenges. The influence of journal bundles on serials budgets has been well-documented in the literature, but has not been taken into account with other citation analyses.

Format for books and journals diverged more greatly than the authors expected. The distinct preference for online access to journal articles was no surprise. Indeed, Joyner has invested significantly in expanding access to online journal content, including backfiles, and then weeding print for JSTOR or other owned backfile collections. However, the 3:1 preference for print to online access for books came as something of a surprise as we have also been adding more ebooks and ebook packages, and reducing print monograph budgets. Collection managers might need to be more cautious about abandoning print purchases until reading patterns also change.

Textbooks were cited with some frequency, including Creswell's *Designing and Conducting Mixed Methods Research*, cited by 37 of the 106 authors across 4 editions, and Yin's *Case Study Research Design and Methods*, cited in 24 dissertations across 5 editions. One of the issues that textbooks bring up is varying editions—the library might own some of the editions cited but not all. Whether to purchase textbooks and whether to order each succeeding edition is an issue libraries have

struggled with. Other books that were cited by multiple authors included books on qualitative data and methods, and books on statistical analysis. Multiple dissertation authors also referred to classics such as Burns's *Leadership* and recent widely-read books like Senge's *The Fifth Discipline*. Joyner Library collection managers will seriously consider obtaining at least some editions of the most-often used research methods texts, not only because of the present study, but also in light of the library's Course-Adopted eTextbook program (Carr, Cardin, & Shouse, 2016).

Future Research

The current study has both immediate and long-term implications for management of the library's collections. In the short term, collection managers can examine their investigation into whether highly-cited journals are individual subscriptions, available only to the university users within aggregators, or are part of journal packages. Collections librarians can also begin a dialogue with departmental faculty about the monographs selected and monograph formats.

Another area mentioned above that is beginning to receive more attention in citation analysis is the presence and uptake of open access articles compared to subscription access. Gasparotto (2014) brings this up in a limited fashion in her study of Spanish and Portuguese Department dissertations from Rutgers.

The current study did not include

Table 5: Journal Title Distribution by Number of Citations

Number of Journals	Uses Per Title	Total Citations	Percent of Citations
35	30X or more	1,986	32%
159	7X – 29X	2,101	34%
1,186	1X – 6X	2,122	34%
1,380		6,209	

consideration of open access titles except for journals not available through the library's E-Journal Portal. Although Joyner Library does provide access in its discovery services to Directory of Open Access Journals, Directory of Open Access Books, and other well-known OA providers, not all open access journals and books are tracked and discoverable using library systems. Collection management librarians face a decision point: when they become aware of OA titles that have been cited, should they add these titles to the library's catalog? Our approach of adding OA packages and only selectively adding individual titles is likely not unique, and the decision-making behind it will only become more important as more titles are available on an open access basis.

Another aspect of materials not offered through library discovery systems is the widespread and increasing availability of articles on social networks such as ResearchGate or Academia.edu. This availability likely has an influence on how students were accessing materials, but was beyond the scope of the current study. We cannot know whether the student used a copy of the article from ResearchGate or the library's collection; we can only know whether Joyner Library offers access to that particular journal volume. The same is true for articles that are available on authors' websites, in institutional repositories, or disciplinary repositories. Future research, then, might focus on how thesis and dissertation authors access content in order to gauge the impact of social networking sites.

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http://www.nclaonline.org/

Remembering the Life and Legacy of Leland Park '63

Leland M. Park '63, a lover of books and a lover of life, died on Wednesday, February 13, 2019. He was 77 years old.

Park served as director of Davidson College's E.H. Little Library from 1975-2006. He was the third library director in the history of the college, and followed in the footsteps of his professional mentor and friend, the late Chalmers G. Davidson '28, and the late Miss Cornelia Shaw, who assumed administrative duties from the faculty in 1907. Park was also a friend, trusted advisor, and inspiration to generations of students, faculty, and staff.

"When I arrived at Davidson, Leland very quickly made sure I felt at home," said Davidson College President Carol E. Quillen. "He gave me a tour of the town, complete with a history of who had lived in which house for the past 50 years and some pretty incredible stories, punctuated by his joy-filled, one-of-a-kind laugh. His love of learning and profound commitment to this college guided his leadership and service, both in the library and across campus. That leadership and service continued long after his retirement. I know the entire Davidson community shares my deep gratitude for Leland's friendship and the gift of his extraordinary life."

Labor of Love

Park's career spanned a time from when he was the first Davidson College library staff member with an electric typewriter to the days of digital access. It was a freshman history class under Prof. Chalmers Davidson, a descendant of Revolutionary War General William
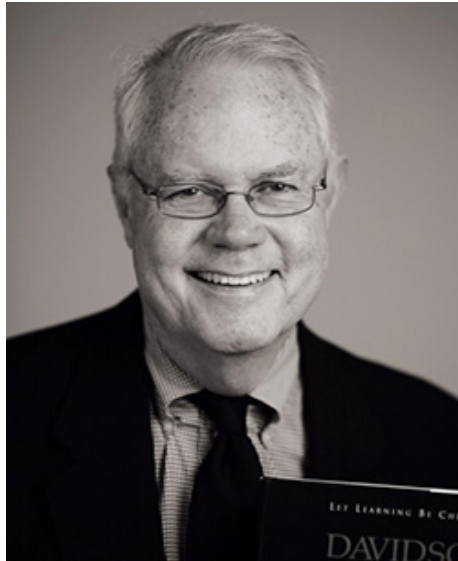
Park was known for his hearty laugh and storytelling prowess.

Lee Davidson, for whom the college is named, that instilled Park's own enduring love of the college and its history -- and ultimately determined his life's path.

As a student, he worked "for beer and cracker money" in the Davidson library, and went on to earn master's and doctoral degrees in library sciences from Emory University and Florida State University.

After completing his ROTC obligations to the U.S. Army and a stint as reference librarian in the Charlotte public library, he returned to his alma mater in 1967 as head of reference and student personnel for the library.

He stayed for more than 30 years.

"Leland represented and displayed the very best of Davidson," said Johnston Professor of Economics and former Dean of the Faculty Clark Ross. "His life was intertwined with the college for six decades, during which he served as an authority and chronicler of our past, as well as a supporter and caring critic of the present. Under his leadership, the library's dedicated and caring staff and welcoming space provided extraordinary service to students, staff, and faculty."

Ross lauded Park's unfailing courtesy to each and everyone who graced the campus. "He was a generous donor to the college, a rabid Wildcat basketball fan, and a supportive, but candid, advisor and friend to all in positions of leadership," Ross said. "While we have lost Leland's remarkable presence on campus, the examples of his good work and his caring spirit will long endure."

On the occasion of his retirement, Park recalled the planning and construction of E.H. Little Library. A week after Park arrived on his new job in Grey Memorial Library, President Grier Martin '32 announced the intention to build a new library.

"Chalmers said, 'I built the last one, thank you, you can do this one!'" Park recounted in a 2005 interview, with a burst of his trademark hearty laughter.

Build it, he did. Park shaped not only the physical space, but also the first-rate staff and collection that would serve a growing, changing campus into the 21st century. Under his leadership, the library's offerings complemented what Park saw as a broadening and deepening of the college's core educational mission toward a more interactive and research-oriented approach to education.

The library's original, 1970s-shade-of-green carpet may be gone, but the foundation of the library's future remains.

Through his careful stewardship of college resources and personal

Upon announcing his retirement, Park wrote to his staff "I hit home runs with each of you. You are the experts in your field."

philanthropy, Park paved the way for those who will safeguard and shape the course of Davidson College's library history. In 2002, he established a $1 million endowment to provide support for the directorship of the E.H. Little Library. Jill Gremmels served as the first Leland M. Park Director of the Library, and Lisa Forrest became the second person to hold the directorship in 2018.

One of the first lunch dates Forrest made in her new job was with her directorship's namesake, who knew the history of the library, the college and its culture like no other. Like Park, Forrest emphasizes that, past and present, a good library is about relationships, and should be a focal point in the unique community of scholars that gather on a residential liberal arts campus.

Beyond his many years with the library, Park provided the institutional memory for numerous traditions and anecdotes about Davidson. He chaired his 35th reunion and co-chaired his

50th reunion, and served as an Annual Fund class agent and class chair, as well as faculty advisor to the Sigma Alpha Epsilon fraternity. He also organized and coordinated the inauguration proceedings when Bobby Vagt was installed as Davidson's president.In 2007, a group of alumni who were influenced by Park established a scholarship in his name.

Park often served as faculty marshal in academic processions.

Park will be remembered as a gateway and a bridge to the institution he loved, whether for students attempting to navigate scholarly life or new staff and faculty enjoying a tour of campus led by one of the few people who could so gracefully walk the path between the college's past and present.

"Leland always said, 'Davidson College is a way of life based on things of the mind, tempered by manners and morality,'" said Bob Davidson '62, a friend and contemporary of Park's. "That set his course."

Memorial contributions may be made to the Leland M. Park Scholarship, Davidson College Davidson College, PO Box 7170, Davidson, NC 28035, and St. Peter's Episcopal Church, 115 W. 7th St., Charlotte, NC 28202.

A service to celebrate Park's life was held at 4 p.m. in the sanctuary of Davidson College Presbyterian Church on Sunday, February 17, with a reception to follow in the Lilly Family Gallery.

Master's Paper Abstracts
Summer 2017 - Spring 2018

Summer 2017

Lauren E. Bellard. Academic Librarians' Perceptions of Visual Literacy Standards. A Master's Paper for the M.S. in L.S degree. August, 2017. 38 pages. Advisor: J.J. Bauer
Visual Literacy is an area of study that has spawned varied theoretical writing, definitions, practical applications, and interdisciplinary insights over the past few decades in American education. In 2011 the Association of College & Research Libraries presented its Visual Literacy Competency Standards for Higher Education. The standards identify skills that students in the 21st century need to access, interpret, evaluate, and create meaningful images. This study interrogates if and how competency standards are used amongst academic librarians who work in art libraries, with data visualization, or who simply incorporate some aspect of visual literacy into their instruction sessions or research consultations. Conclusions are drawn from interviews with seven local academic librarians, and the author identifies major trends, as well as areas of disagreement, in visual literacy and is standardization in higher education.

Alexandra E Dowrey. Processing to Protect Privacy and Promote Access: A Study of Archival Processing in Medical Archives, Health Sciences Collections, and History of Medicine Collections. A Master's Paper for the M.S. in L.S degree. July, 2017. 70 pages. Advisor: Denise Anthony
This research reports on the findings of a study of archival processing in medical center archives, health sciences collections, and history of medicine collections. This exploratory study examined how archivists in these settings process collections and, in so doing, how they balance the potentially conflicting needs of protecting privacy and providing timely access. Four practicing archivists were interviewed, the interviews were transcribed, and data were coded inductively. Participants addressed how they identified sensitive information scattered throughout collections, the impact this sensitive information had on processing decisions, how they communicated access restrictions, and ways in which they managed access. The findings suggest that sensitive information is best protected when it becomes a shared commitment and a shared responsibility between all groups involved.

Kathryn E. Flynn. Locating the Research Methods of Doctoral Students: The Results of Interviews with Current Religious Studies Doctoral Students. A Master's Paper for the M.S. in L.S. degree. July, 2017. 71 pages. Advisor: Sandra Hughes-Hassell
This paper describes a study conducted to better understand both the ways in which current PhD students in religious studies gather research and which library resources they are using. PhD students provide invaluable insight regarding shifts in research, library science, and publishing, yet little research has been conducted with them in comparison to their more senior faculty-status colleagues. In order to correct that oversight, this study was designed in an effort to improve PhD students' instruction in the art of research and to improve library assistance with PhD student-specific research bottlenecks. This study used a semi-structured interview protocol to solicit the experiences of current religious studies doctoral students on the issue, seeking five, and garnering seven usable responses. Interview results indicate that in comparison to current religious studies faculty at the same institution, doctoral students are 1.) more comfortable identifying their work as data; 2.) incorporating more technology into their research methods and storage; and 3.) weighing in more heavily on the importance of public engagement. They do, however, still disagree amongst themselves on such issues as when to incorporate nontraditional publishing avenues into their portfolios. The results of this study are of primary interest to UNC University Libraries staff, academic library staff members in general through professional organizations, humanities faculty across the country, researchers studying trends in higher education, and by other PhD students.

Cole R. Gibson. An Assessment of the Usage of Content Standards in the Creation of MARC Record for Derivative Materials. A Master's Paper for the M.S. in L.S degree. July, 2017. 48 pages. Advisor: Caroline Keizer
Cataloging derivative materials is a complex and time-consuming process. Derivative materials often contains multiple entities who are responsible in some way for their creation and those entities are often not credited properly. With the introduction and use of RDA, and the growing awareness of FRBR standards these issues are becoming increasingly important. This research examines how MARC records are being created for these derivative materials and how they address the concepts of a work, expression, manifestation, and item as well as investigating the ways in which catalogers attempt to give proper attribution.

Karen Mélody Holland. Overture and Beginners Please! A Call for Performing Arts Metadata at the Edinburgh Festival Fringe. A Master's Paper for the M.S. in L.S. degree. July, 2017. 101 pages. Advisor: Denise Anthony
In August 1947, Scotland hosted its first Edinburgh International Festival of Music and Drama. Unbeknownst, it simultaneously hosted an uninvited set of eight theatre troupes, whose performances included a staging of Macbeth, alongside Marionette puppet plays. These undeterred artists set into motion what would become the single largest celebration of arts and culture in the world: the Edinburgh Festival Fringe. The year 2017 is the Festival's 70th Anniversary. Yet, little attention has been paid to its documentation and description. The literature suggests that metadata schemas dedicated to performing arts are recent, and none have been explored in the context of the Fringe. This research project conducts a case study of an archival collection entitled Follow the Fringe. It employs qualitative content analysis to explore how well the current metadata schemas modeled for performing arts address the descriptive needs of the Edinburgh Festival Fringe.

Janet Peterson. Looking for America: Keyword Searches for Diversity and Minorities in Children's Materials in North Carolina Public Library OPACs Using Vernacular and Library of Congress Subject Heading Terms. A Master's paper for the M.S. in L.S. degree. July, 2017. 159 pages. Advisor: Stephanie W. Haas
According to U.S. Census Bureau data, by 2015 over half of all children in the United States under the age of 5 were racial or ethnic minorities. Changing racial and ethnic demographics, in addition to changing social attitudes about other diverse groups, have led to changes in popular terminology and a call for children's books reflecting current diversity. However, Library of Congress Subject Headings may not reflect more current terminology, and public library OPACs may return different numbers of hits for vernacular and LCSH terms. This study examines the number of hits returned for children's materials in ten North Carolina public library OPACs for selected vernacular and LCSH terms for racial, ethnic, and other diverse minorities. Differences in numbers of hits returned may suggest that OPAC users receive irrelevant results, or that users do not receive all relevant results for existing materials in library collections.

Julie Riegel. From National to Local: Usability Testing Non-Profit Websites. A Master's Paper for the M.S. in L.S. degree. July, 2017. 49 Pages. Advisor: Mary Grace Flaherty
As people continue to access more information through the World Wide Web, providing effective websites has become increasingly important to the work of Non-Profit Organizations (NPOs). While the needs of individual NPOs will differ, working within industry standards helps build a bridge between NPOs and users regardless of familiarity with the organization's website. Feedback from users is critical to improving the way a site functions.

Though the process of retrieving information on the local affiliations of the larger organizations appears straightforward, this study supports the hypothesis that the user's journey is actually more complicated. In order to assess how users engage with each website, the researcher designed a sequence of usability tests that asked the users to find a specific piece of information on the local chapter for the following organizations: Girl Scouts of America, Youthbuild (a trade skill educator), and the American Civil Liberties Union (ACLU). The researcher recruited 15 participants using a convenience method, and the participants conducted a 4-part usability test. They were introduced to the study, performed 2 tasks, and then the researcher interviewed the participants at the end of the test.

This study found that participants experienced pain-points while using the websites to perform the task. These included trouble with finding information on the local branch of national NPO websites, frequent requests for contact information, frequent requests for monetary donations, and trouble navigating map visualizations.

Winter 2017

Brittany P. Burchett. What Makes a Book "Dirty"?: Defining "Sexually Explicit" Content in Books Banned for Teens. A Master's Paper for the M.S. in L.S degree. November, 2017. 86 pages. Advisor: Sandra Hughes-Hassell
According to data collected by the American Library Association, the #1 reported reason a book is banned or challenged is for "sexually explicit" content. The majority of these books were challenged due to concerns about teenager readers. The ALA provides no definition on this term which could guide librarians in selecting content and responding to these challenges. The goal of this paper was to create a definition of the "sexually explicit" challenge. This was done through a qualitative content analysis of the sexual content in fifteen books that received this complaint between the years of 2015 and 2015. A single definition could not be created from the varied results. However, eleven overarching themes relating to sexual content emerged. These themes provide guidance as to what librarians can expect to find in a book that receives this challenge.

Rashnil Chaturvedi. Interactive Temporal Feature Construction: A User-Driven Approach to Predictive Model Development. A Master's Paper for the M.S. in IS degree.

October, 2017. 54 pages. Advisor: Dr. David Gotz
Predictive modeling with visualization techniques can revolutionize the way businesses operate. Analyzing large datasets on high compute machines makes it possible to utilize advance technologies to support data-driven decision making. A wide range of domains deal with data that have random sequence of events (such as real-time verification or health care). Temporal relationship between these events can be highly predictive in nature. However, existing methods of feature selection makes it difficult to identify temporal relationships to enhance the predictive power of models. Often, it requires domain expert's knowledge to identify realistic patterns. Interactive Temporal Feature Construction (ITFC), a visual analytics workflow is designed to enable effective data-driven temporal feature construction. This application provides a new interactive workflow for model building and refinement, and visual representations to support that workflow. Use cases demonstrate how ITFC can result in more accurate predictive models when applied to complex cohorts of electronic health data.

Michael C. Conway. Policy Domains: A State-Machine Based Approach to Policy-Based Data Management. A Master's Paper for the M.S. in I.S degree. November, 2017. 72 pages. Advisor: Arcot Rajasekar and Reagan Moore
A Policy Domain is a concept introduced by Ward, Xu, Conway, et al. It describes a bridge between the low-level model of a Policy Enforcement Point in iRODS and a high-level representation of an event where policies may be applied. This proposal describes a project to concretely define and implement a policy domain as applied to a portion of the OAIS Reference Model, showing the properties of a policy domain, and pointing towards a general mechanism for creating well defined policy sets, metadata, and constraints appropriate for a domain. This provides a flexible and powerful enhancement to the successful policy management approach of iRODS, and points to new methods of composing policymanaged systems.

Jesse D. Griffin, Jr. Deselection Criteria Used by Academic Law Librarian in Selected Academic Law Libraries in the Southeastern United States. A Master's Paper for the M.S. in L.S degree. November, 2017. 42 pages. Advisor: Ronald Bergquist
Academic law librarians are dealing with three large crises. First, they have little budget money to use to build new library buildings. Second, they have little room to add new books to their collections. Third, the shelving space they do have is being reclaimed for group or collaborative study spaces.

This study investigates one response to these crises: a vigorous deselection program. While much literature for deselection in libraries in general, few academic resources deal with deselection in academic law libraries. To determine what criteria might guide academic law librarians in evaluating which books to retain, the research interviewed academic law librarians to discover what they thought were important deselection criteria to consider.

Silpa Reddy Guda. Information Resources Used by International Graduate Students at UNC to Acclimate to the American University Academic Life and Culture. A Master's Paper for the M.S. in I.S degree. December, 2017. 44 pages. Advisor: Cliff Missen
The number of international students enrolled in American universities is growing by the year and has been the case for many years now. Even with the availability of numerous resources that help the students in their adjustment, the process is by no means challenge free. This research hopes to identify perceptions and uses of the resources at UNC by international graduate students and discover strategies to better meet their needs while attending American universities. The responses helped identify the information resources found most useful by international graduate students. The research also demonstrated the challenges in using some of these resources and what can be done to potentially improve them.

Janice E. Hansen. Rare Books as Collections: Description Standards for Collections of Books that are Archival in Nature at the University of North Carolina at Chapel Hill and Duke University. A Master's Paper for the M.S. in L.S degree. November, 2017. 51 pages. Advisor: Eileen Dewitya
This paper looks at current and legacy cataloging practices for collections of rare books with archival elements at Duke University and the University of North Carolina at Chapel Hill. It considers three types of "archival" rare book collections: 1) the personal libraries of writers; 2) personal (research) collections; and 3) large collections of related materials. In considering eight representative collections from two institutions, it answers the following question: How do past and current description practices for "archival" rare book collections in two ARL libraries in North Carolina compare to the way recent scholarship has proposed these types of collections be described? This paper develops a clear picture of how these types of rare book collections are made visible at these two institutions.

Huan Lian. Identifying User Suggestions from Mobile App Reviews. A Master's Paper for the M.S. in I.S. degree. November, 2017. 34 pages. Advisor: Jaime Arguello
The last few years have seen enormous growth in the use of mobile devices. This growth has fueled the development of software applications, often called apps. Mobile app developers

constantly collect and analyze feedback in user reviews with the goal of improving their apps and better meeting user expectations. Due to high volume of data, manually reading user comments requires a labor-intensive effort. In this paper, we propose a framework for automatically identifying user suggestions from reviews, the information of which can be useful for next app release. Our approach uses a deep learning model with attention mechanism. Experimental results demonstrate that the proposed architecture outperforms the baseline methods.

Fannie H Ouyang. Using Cookbooks from the North Carolina Collection as Cultural Historical Documents. A Master's Paper for the M.S. in L.S. degree. December, 2017. 47 pages. Advisor: Denise Anthony
Cookbooks do not have to function merely as objects in the kitchen space. They are versatile, primary resources that can provide researchers with a range of insight into social, economic, and cultural histories. Through the careful examination of the books, a researcher can parse an array of characteristics to produce a narrative about the people who created and used the cookbooks and the times in which they lived. This master's paper describes such an analysis of thirty cookbooks published between 1872 and 1979 and housed in the University of North Carolina – Chapel Hill's North Carolina Collection. Here we found that the cookbooks from the Piedmont region of North Carolina presented an assortment of information that tells of the types of foods that were being eaten over the course of a century according to availability and food ideologies, the transforming roles of men and women, and ultimately, the transforming cookbook.

Mara C. West. A Review of Subject Indexing and Social Tagging Projects in Art Museums. A Master's Paper for the M.S. in L.S. degree. November, 2017. 42 pages. Advisor: Ryan Shaw.
Studies show that art historians and other image professionals value being able to search for images using subject terms. However, the subject indexing of artworks and images is a subjective and timeconsuming undertaking. As a result, many digital image collections are lacking comprehensive subject access points at the object level. Social tagging of digital images has been proposed as a means of improving image metadata and increasing subject access to art images. Three social tagging projects, Steve.museum, the Brooklyn Museum Posse, and Art UK's Your Paintings Tagger, were created as test programs to explore issues regarding the social tagging of digital images in museum collections. Their results suggest that carefully designed tagging programs can improve access to art images when used as a supplement to professional indexing.

Spring 2018

Amanda Baker. Exploring How to Evaluate The "Textbookiness" of a Textbook According to Librarians.
A Masters paper for the M.S. in I.S. degree. May 2018. 64 pages. Advisor: Cliff Missen

This paper aims to discover what librarians thought about Open Access Textbooks: namely what criteria they felt was pertinent to help users make an informed decision about their resource. Affordability and access to education materials is ideal in a world which aims to provide certain human rights, i.e. education. Prior to this research, no research existed pertaining to librarian's opinions about essential metadata. Thus, librarians were shown a rubric and asked to evaluate each criterion ranging from title information to user friendliness on the web. It was discovered, that much of this information was valuable in determining which criteria were most useful to a user.

Todd E. Bowser. Information Literacy Without Walls: Toward a Collaborative Model for Transitional Library Instruction. A Master's Paper for the M.S. in L.S. degree. April, 2018. 43 pages. Advisor: Claudia Gollop

This paper explores the inconsistency in preparation of first-year university students for college-level research and coursework. A survey of first-year students in North Carolina was executed to measure the availability and impact of library instruction, seeking ways that academic librarians might intervene to address gaps in student information literacy experienced by college-bound students. Librarians across the state were interviewed to explore known information needs among these students and ways that university librarians could contribute to solutions. Survey data and responses from interview subjects suggest a need to improve support for information literacy skills as students prepare for post-secondary learning. Further research is needed to develop a collaborative model involving academic librarians, faculty, and school media coordinators to define and develop the skills needed by students in their college coursework and lifelong learning.

Bogeum Choi. The relationship between task complexity, working memory and information search. A Master's Paper for the M.S. in I.S. degree. April, 2018. 59 pages. Advisor: Robert Capra

In recent years, there has been growing interest in better understanding human actors in human information seeking behavior studies. Although a number of studies have been conducted to

explore users' individual differences in search behavior, there have been few studies taking both a theoretical and empirical approach to the relationship between users' cognitive ability, task complexity and search interactions. The study presented in this paper evaluated the effect of task complexity and working memory in human information searching behavior. Twenty-four participants from a non-college-bound adolescents sample (ages 18-50+) performed two search tasks of varying levels of complexity and were administered measures of working memory. ANOVA tests revealed three important trends: (1) task complexity had a significant main effect on users' perceptions about the task (i.e., temporal demand and level of satisfaction with time spent on the task), (2) working memory capacity had a significant main effect on users' search behavior (i.e., queries, clicks, time until 1st click and time between search activities), and (3) a significant interaction effect was found for several search interaction measures (i.e., queries, clicks and time between search activities) and perceived level of temporal demand. Specifically, participants with high working memory capacity carried out more search activities at a faster pace and experienced less temporal workload. Taken together, these results suggest that task complexity and working memory capacity can have effects on users' search behavior as well as their perceptions about the search experience.

Ellen F Cline. Undergraduate Perceptions of the UNC Libraries. A Master's Paper for the M.S. in L.S. degree. April, 2018. 67 pages. Advisor: Chad Haefele
Following the understanding that perception affects use, this research paper contributes to library assessment literature and investigates patron perceptions of libraries. Since undergraduates make up a majority of the UNC student body, the focus of this paper is on them and their levels of library engagement. A survey of undergraduates was conducted to better understand their perceptions of the UNC libraries and how those perceptions affect library use. The survey found that many students use the library as a place for studying and view it as both a building and as a community. Implications for library practice are examined, and it was found that the libraries could work to improve study areas in the library and improve outreach.

James N. Curry III. Promotional Support: A Content Analysis of Diverse Teen Representation in Public Library Promotional Materials. A Master's paper for the M.S. in L.S. degree. April, 2018. 34 pages. Advisor: Casey Rawson
This study describes a quantitative content analysis of promotional materials found in five sampled branches of an urban library system. The content analysis was conducted to determine if elements of diverse teen populations were represented in the promotional materials distributed and on display in the library branches.

Materials analyzed included brochures, business cards, flyers, posters, signs, and other advertising techniques such as displays. The materials included illustrations of race/ethnicity, gender, sexual orientation, religion, disability, and socioeconomic status. Each sampled branch presented different numbers and types of resources. Sampled community branches offered more variety of promotional resources than the larger, central library branches. A need for a more uniform distribution of promotional materials throughout the library system as well as templates for materials created by individual branches is justified. Suggested practices for future marketing of services to diverse teens are included.

Brianna J Davis. "The Library Has Been There": Public Library Response in Times of Community Social Crisis. A Master's Paper for the M.S. in L.S. degree. April, 2018. 47 Pages. Advisor: Sandra HughesHassell
This paper describes a series of case studies of public libraries during times of community social crisis. The responses of libraries were compared to historical examples of library responses to times of war and natural disasters, in order to determine how similar these responses were to other types of disaster response.

Three cases were examined: the Ferguson Municipal Public Library in 2014, the Baltimore Enoch Pratt Free Library in 2015, and the Charlottesville Jefferson Madison Regional Library in 2017. Reports of the library's actions and of the community's response were collected from contemporaneous and retrospective news reports, interviews, and social media postings. These libraries seemed to exhibit several of the same patterns of behavior exhibited by libraries during times of war or after natural disasters. The closer the library response mimicked that of a library during war or natural disaster, the more positive the community response seemed to be.

Xie Dong. Assessing the Relationships between Task demand, Task difficulty and Performance during Physicians' Interaction with EHR systems. A Master's Paper for the M.S. in I.S. degree. April, 2018. 32 pages. Advisor: Lukasz Mazur
The study's aim was to relate task demand, task difficulty with performance during physicians' interaction with electronic health records (EHR) system. The results indicated that there was a significant effect of task demands on task difficulty and performance; task difficulty was also related to performance. Practically, the results suggest that EHR designers might be able to positively affect physicians' performance by enhancing usability of interfaces aimed at directing physician' EHR-related interaction strategies.

Moira C. Downey. A New Who's Who: Using URIs in a Linked Data Approach to Name Authority Control. A Master's Paper for the M.S. in I.S. degree. April, 2018. 52 pages. Advisor: Wanda Gunther

The names of persons, families, and corporate bodies pose a particularly thorny problem for catalogers and other metadata specialists because they are simultaneously one of the most salient and most mutable pieces of metadata identifying a digital object. Despite continuing advances in distributed, webbased name authority control, this important work remains largely neglected by institutional repositories (IRs) in their efforts to archive the research outputs of their institution. This study aims to explore the possibilities surrounding name authority control in an IR context. Particularly, the study seeks to determine whether a linked data (or linked data-like) approach—in which Uniform Resource Identifiers (URIs) rather than name strings are stored for the authors of repository objects—is a feasible one for the Duke Digital Repository, and if specific steps can be outlined to provide a recommendation for implementing any such approach.

Brenna M Edwards. Theatre Archives in the Triangle: The American Theatre Archive Project in North Carolina. A Master's Paper for the M.S. in L.S. degree. April, 2018. 50 pages. Advisor: Thomas Nixon

This study describes a questionnaire survey and interviews with representatives from local theatre companies in the Triangle area (Raleigh, Durham, Chapel Hill) of North Carolina regarding the American Theatre Archive Project. The survey and interviews were conducted to determine how widely known the American Theatre Archive Project is known in the Triangle, and the impact, if any, it has had on the local theatre scene.

A survey and three semi-structured interviews were used to gather information. Of the 30 theatres contacted, a total of six responded overall. The survey showed local theatres have archives, but they do not have the funding or staff to maintain them consistently. The interviews confirmed this, while also exploring the intersection between archives and theatre. A sense of community and responsibility to preserve theatres' histories appeared throughout these interviews. Archives can help connect audiences with history, they just need a little help getting started.

Jennifer Embree. Archives by Any Other Name: Archiving Memory During Times of Conflict Through Non-Traditional Methods—A Case Study on Digital Humanities Projects Manar al-Athar & Project Syria. A Master's paper for the M.S. in L.S. degree. April, 2018. 51 pages. Advisor: Ryan Shaw

Over the last century, conflicts across the world have resulted in an unprecedented number of cultural heritage sites being purposefully targeted for destruction. While there have been several historical attempts to combat this destruction, the emerging field of digital humanities is now using new digital technologies to also document and preserve cultural heritage demolishment. This article conducts case studies of two such projects: Project Syria, a virtual reality experience documenting the Syrian Civil War, and Manar al-Athar, a digital photo archive that collects pictures of cultural heritage sites in the Middle East. This exploratory study seeks to compare past methods of preservation and documentation of cultural heritage during times of conflict to current methods of preservation and documentation through digital humanities projects, and to determine what digital humanities projects can accomplish that more traditional methods of preservation cannot.

Xueli Fan. Track Co-occurrence Analysis of Users' Music Listening History. A Master's Paper for the M.S. in I.S. degree. April, 2018. 40 pages. Advisor: Ryan B. Shaw

Music services provide listeners access to great numbers of available tracks. It is time consuming for listeners to find potential favorite ones. Music listeners increasingly want playlists to be created automatically. This study examines the relationship between background knowledge about music and track co-occurrence frequency in users' music listening history and builds a multiple linear regression model to predict the track cooccurrence. So given a seed track, the model can find out which track is most likely to co-occur. A simple objective evaluation compares predicted track with tracks in the users' listening history. 13 out of 15 test tracks find the highest rank predicted track in the same listening history.

Jenny Feng. Real-Time Event Summarization of Esports Events Through Twitter Streams. A Master's paper for the M.S. in I.S. degree. April, 2018. 50 pages. Advisor: Jaime Arguello

Exploration of real-time summarization (RTS) methodologies and applications to esports events on Twitter. The goal of this study is to evaluate the effectiveness of real-time summarization techniques at esports event detection, highlight summarization, and timeline generation. A two-step system of event-prediction and summarization is proposed. First, using Twitter as the data source, events in an esports game are predicted through machine-learning and classification to determine event occurrences. Four major classification features and five standard classification models (Naive Bayes, Logistic Regression, Decision Trees, K-Nearest Neighbors, Support Vector Machines) are evaluated to identify an optimal event-detection model. Second, natural-language text processing functions such as term-frequency and

TF.IDF are evaluated for effective event summarization and to confirm successful event-detection. The CART (classification and regression tree) model is selected as the most optimal model for event-detection, predicting in-game esports events with 70% accuracy. This study demonstrates the application of Twitter as a data source in detecting real time esports events.

Erin F. Fernandes. Under the Guidance of Other Lights: Art, Subjects, and the Conflict of the Ideal Versus the Reality. A Master's Paper for the M.S. in L.S. degree. April, 2018. 73 pages. Advisor: Gwen Gosney Erickson
Since 2010, the Getty Research Institute has developed the CONA project, which strives to be an authoritative resource on art objects and their metadata. ARTstor, a premiere collection of digital visual materials for hundreds of art-related institutions, strives to contribute its massive collection of architectural metadata to CONA. CONA, however, has specific, structured standards for metadata, while ARTstor has only few requirements. This study analyzed 428 architectural works in ARTstor to find the number of objects that had subject headings, and whether they adhered to CONA's standards. While almost all objects had information that could be applied to Subject, less than ¼ of the sample had subject headings. Even less were compliant with CONA's requirements. Several of the collections that lacked subject headings, including one of the Getty's, belong to institutions that pioneer metadata standards, which leads to the discussion of the value of subject headings and metadata standards.

Carson N. Fish. Hidden Places, Hidden Faces: Information-Seeking and Identity-Building Behaviors of LGBTQ-identifying Americans in Russia. A Master's Paper for the M.S. in L.S. degree. April, 2018. 37 pages. Advisor: Amelia Gibson
In the literature about Russian LGBTQ communities, an examination of how LGBTQ-identifying foreigners — particularly Americans — navigate the unique relationship between Russia and the LGBTQ community is missing. The goal of this qualitative study was to better understand how this population made planned for their time in Russia, found LGBTQ-friendly spaces, and made decisions about "coming out." The participants in this study used their general knowledge in Slavic studies — rather than directed, active information-seeking to form assumptions and plans about how they would present and "come out" in Russia. Many times, this meant they planned to remain "in the closet"; however, sometimes — through cultural clues — they could make an educated guess about whether or not coming out to a particular person would be a threat to their physical safety. Finally, participants who made interpersonal connections reported a higher success rate with finding LGBT-friendly spaces, such as gay bars.

Madison A Folks. Assessing Collection Silence: Access to Japanese Woodblock Prints at Twenty-Two American University Museums. A Master's Paper for the M.S. in I.S. degree. May, 2018. 62 pages. Advisor: Melanie Feinberg
This descriptive study returned to the 22 participant institutions of the ASIANetwork / Luce Asian Art Consultancy program (2005–2008) to question the narrative of Japanese woodblock prints through the organization and accessibility of their collections. As this study was concerned with implicit ontologies and not officially articulated meanings, all data was collected through content analysis of the manifest content of digital object records and collection organization Following the analysis of 22 collections and 30 individual records, this study found that the narrative remains silent for 12 of the 22 institutions – their collections had no digital presence. For the other 10 institutions, existing records were riddled with inconsistent, incorrect, and westocentrically-framed information. Though the scope of this project was narrow, this study can provide a model for questioning constructions of value, cultural exclusion, and the unintended narratives that unfold through the organization and accessibility of art collections.

Tabitha Frahm. A Usability Study of Virtual Reality Systems: On Best Practices for User-Centered Design in Virtual Reality Gaming Interfaces. A Master's paper for the M.S. in I.S. degree. April, 2018. 106 pages. Advisor: Chad M. Haefele
In an effort to gather a list of best practices for user-centered design in virtual reality gaming interfaces, this study combines evidence from industry anecdotal observations, heuristic evaluations, and usability testing with three of the leading virtual reality platforms on the market: HTC Vive, Oculus Rift, and Windows Mixed Reality. Quantitative and qualitative data were collected from a variety of usability scales and questionnaires, think-aloud tasks, observation, and semi-structured interviews. The results of the study suggest that immersion is an effective design feature across all interfaces, however the lack of real-world awareness resulting from immersion can be a major usability concern. Pain-points included controller design and button mapping, physiological comfort, and adapting to new methods of movement and interaction required in 3D virtual environments. The findings emphasize the need to prioritize learnability in the design of VR systems. The paper concludes with fifteen guidelines for designing user-friendly virtual reality interfaces.

Jeremy S Frye. Federal Scholarly Publishing: An Investigation into Practice and Public Access A Master's Paper for the M.S. in L.S. degree. April, 2018. 47 pages. Advisor:

Bradley M Hemminger

In the world of scholarly publishing ideals of open access have developed and thrived in a variety of fields and settings. There has been a wide variety of research published on the benefits and nature of open access, but this research has often overlooked the overlap between scholarly publishing and federal research. Federally authored works are considered works of government and considered in the public domain, but oftentimes the scholarly works of federal authors are copyrighted by private publishers and remain behind paywalls. The number of these works of government that exist behind private paywalls has not been documented and there is little research into the topic. This paper examines this phenomenon through citations gathered across major databases as well as through interviews with copy editors who work with these federally authored papers.

Erin P Gallagher. Prioritization of Information: An Archives Website Content Analysis and Interviews to Model the Prioritization of Online Content Availability. A Master's Paper for the M.S. in I.S. degree. April, 2018. 55 pages. Advisor: Helen Tibbo

This study describes a content analysis of the consistency of information available on university archives and special collections websites of the institutions in the University of North Carolina system. Additionally, interviews were conducted with archivists at these universities to understand obstacles they face when posting content online. From the results a prioritized information model for university archives and special collections websites was developed.

Amanda Girelli. Music Information Literacy Curriculum: a Content Analysis. A Master's paper for the M.S. in L.S. degree. April, 2018. 38 pages. Advisor: Sandra Hughes-Hassell

This study describes a content analysis of materials used to teach library and information literacy skills to undergraduate music students. The analysis was conducted to determine if and how music librarians who design and implement this instruction are informed by the Music Library Association's publication, MLA Information Literacy Instructional Objectives for Undergraduate Music Students. This document is based on the Association of College and Research Libraries' Information Literacy Competency Standards for Higher Education. Seven documents from two institutions were included in this study, and their content was compared to the Objectives – both the original text of the Standards and the MLA's musicspecific additions. The documents varied in format – some were intended for use by instructors, others were for students. The amount of clearly displayed influence by the music-specific content in the Objectives varied greatly. This research indicates that there is little standardization or regularity in the Objectives' influence.

Julia Holubec Gootzeit. "The Zine Scheme": A Comparison of Five Institutions' Methods of Zine Description and an Assessment of the xZINECOREx Metadata Schema for the Creation of a Zine Union Catalog. A Master's Paper for the M.S. in L.S. degree. April, 2018. 67 pages. Advisor: Melanie Feinberg

This paper examines the schemas used to describe zines across the collections of five different institutions: the Queer Zine Archive Project (QZAP), Barnard Zine Library, the Bingham Zine Collections, Long Beach Public Library's zine collection, and Salford Zine Library, and compares them to the xZINECOREx metadata schema which was created in order to facilitate a union catalog of zines. Records were selected from each institution, and each schema was mapped to the xZINECOREx metadata schema. The selected records, schemas, and crosswalk were then analyzed.

Overall, xZINECOREx has the potential to facilitate the creation of a union catalog and allow institutions to share the work they have already done describing their zine collections. Difficulties in mapping the schemas from each institution to xZINECOREx came primarily from attributes mapping to multiple xZINECOREx attributes, and from xZINECOREx failing to have attributes that described a series of zines under one record.

Kelsey N. Hammer. Case Study: GIF-making as A Microcosm for Connected Learning for University Students. A Master's Paper for the M.S. in L.S. degree. April, 2018. 100 pages. Advisor: Casey Rawson

This case study examines a library design competition, "GIFABLE UNC", at the University of North Carolina at Chapel Hill during Fall 2017. Students were challenged to create GIFs, a developing social media, to capture UNC culture. This case study details and investigates the competition's success as an example of Connected Learning pedagogy for students. Connected Learning is a multifaceted pedagogical framework that encourages and supports building capacity and community for students through various frames including purposeful, productive, and interested-based learning and work. This case study found that "GIFABLE UNC" succeeded on some fronts, particularly value for students, but that further research and experimentation is required for this type of event to fully inhabit Connected Learning design criteria and features of new media.

Katie H. Harrell. A Content Analysis of Governmental and Private Enterprise Website Privacy Policies.
A Master's Paper for the M.S. in L.S. degree. April, 2018. 60 pages. Advisor: Amelia Gibson

This paper explores the differences between privacy policies on governmental and private enterprise websites. Three industries, healthcare, financial, and political, were selected for comparison. The six policies that were analyzed include regulations.gov, Facebook, healthcare.gov, Blue Cross Blue Shield, The U.S. Office of Personnel Management and Fidelity Investments. These sites were chosen because users may share similar information when interacting with site services.

The content analysis was performed to determine if there were significant differences in policy content and coverage. Although there were no obvious differences when policies were examined at a surface level, a close reading revealed that policy coverage and content was not the same. The policies were further analyzed to show how they discuss cookies, the ways in which a user could opt out of data collection, information sharing with third parties, and the often blurred lines between involuntary and voluntary information collection present. The results of the analysis revealed that governmental websites often have policies that provide more detailed and comprehensive information about user choice and policy coverage.

Christopher C. Haydock. Challenges in Preserving Video Games. A Master's Paper for the M.S. in L.S. degree. April, 2018. 38 pages. Advisor: Christopher Lee

Video games are challenging objects to preserve for a variety of reasons, but their value is increasingly becoming apparent to cultural heritage institutions. This study describes interviews conducted with digital preservationists at Carnegie Mellon University, the Computer History Museum, the Library of Congress, Stanford University, and The Strong National Museum of Play to determine how they define meaningful preservation of video games and what they feel are the greatest challenges to achieving this level of preservation.

The obstacles the interviewees most frequently identified were laws that make it illegal to perform preservation activities without permission from copyright owners, difficulties obtaining this permission, and insufficient resources to preserve a vast amount of deteriorating media. The study concludes with interviewees' ideas for how to overcome these problems and calls for further research on how to make video game preservation successful and scalable.

Yongxing Jiang. Build a Web Database Platform to Analyze Health Status, Health-Related Quality of Life (HRQOL),

and Health Economic Outcomes (HEO) of Cancer Patients and Their Caregivers. A Master's Paper for the M.S. in I.S. degree. April, 2018. 36 pages. Advisor: Fei Yu

The goal of this exploratory study is to build a web database platform to facilitate the analysis of the relationship between health status, HRQOL, and HEO in family caregivers and cancer patients. This paper describes the whole design process of the Web database, query and data visualization platform including (1) target users' requirement (scientific research Needs); (2) medical expenditure panel survey (MEPS) data cleaning and processing; (3) methods and technical details of developing web databases (server-side) and the front-end user interfaces. This web database platform will help researchers achieve efficient querying and visualization of big medical dataset.

Matthew W. Johnson. "Not playing that game": An Exploratory Study of Queer Men's Health Information Behavior on Location-Aware Dating and Sex-Seeking Mobile Applications. A Master's Paper for the M.S. in L.S degree. April, 2018. 114 pages. Advisor: Dr. Amelia Gibson

The present study seeks to determine how location-aware mobile dating and sex-seeking applications manipulate, complicate, contribute to or develop the landscape of the health information environment for queer men, specifically focusing on information around human immunodeficiency virus (HIV) and preexposure prophylaxis (PrEP). The study used purposive sampling to recruit 8 participants who are male, have sex with men, and use mobile phone applications that are marketed primarily to queer men (e.g. Grindr, Scruff, Jack'd). Within the sample of this study, health information sharing related to sexual health information needs, such as HIV status, PrEP usage, and current sexual health, seem to be normalized. Further, this information, which is easily accessible via categorical input fields on dating application profiles, is important for making decisions about interacting with individuals on applications.

Finally, negotiating sex with other individuals on dating or sex-seeking applications leads to discussions involving the exchange of health information.

Mary A. Kallem. The Domestic Clutter Practices of Artists. A Master's Paper for the M.S. in L.S. degree. April, 2018. 50 pages. Advisor: Brian Sturm

This study describes a series of interviews with artists regarding their organizational strategies for household clutter. The interviews were conducted to deepen an understanding of clutter's role within domestic taxonomies, situating clutter not as a failure of homemaking but as a residual category integral to an individual's sense of home. Five artists were interviewed about a self-selected area of clutter within their homes. Each participant

practiced within a unique medium; participants included a zinemaker, fiction author, DJ, sculptor, and a musician. All five participants discussed clutter as sites of active labor and categorical negotiation, places where multiple aspects of their identities comingled to form ecologies unique to their senses of self.

Amelea Kim. Overdue Fines in the Academic Library: Undergraduate Student and Staff Perceptions of Overdue Fines at the UNC Undergraduate Library. A Master's paper for the M.S. in L.S. degree. April, 2018. 61 pages. Advisor: Mary Grace Flaherty

In recent years, libraries have started to examine their fines policy more critically to see the effects on patrons, workflow, and staff, as well as to see how their policies can be changed, or in some cases, removed. This study looks at the overdue fines policy at the Undergraduate Library at the University of North Carolina at Chapel Hill, specifically analyzing how experiences with the fines policy among undergraduate students affects their use of the library, as well as how the experiences of staff members with fines affects their workflow. The results of the study show that while many students feel that fines are an effective means of incentivizing book return, the financial burden does play a role in producing a negative impression of the libraries and can dissuade some patrons from using its services.

Hyeeyoung Kim. Where Are We Again? A Content Analysis on Usability of Online Finding Aids. A Master's Paper for the M.S. in I.S. degree. April, 2018. 67 pages. Advisor: Denise Anthony

This study presents findings from a content analysis I conducted on the usability of 264 online finding aids from archival institutions. I developed a coding scheme consisting 6 categories and 31 checklist items based on recommendations from previous studies of online finding aid usability along with web usability literature. Despite repeated user feedback from usability studies, this study found that archival terminology still commonly appears in finding aids, but explanations for the terminology are rare. Most institutions implemented standard navigation elements to their finding aids, but the adoption of recommended navigation elements, such as persistent local navigation and you-are-here indicators, was low. A local search box or browser built-in search indication appeared on less than half of finding aids and the adoption of help and Web 2.0 features was low. All institutions formatted finding aid section headings, but stronger formatting could improve finding aid scanability. The study also found that the visual indications for a hierarchical collection structure appear in more than half of the finding aids, but indications for accessing online materials or requesting collection materials were rare.

Jessica Kincaid. Support for Digital Humanities Research in Academic Libraries: Case Studies in Special Collections. A Master's Paper for the M.S. in I.S. degree. April, 2018. 57 pages. Advisor: Ryan Shaw

With the emerging prominence of digital humanities scholarship, academic libraries are taking steps to reevaluate approaches to research services. This study explores the nature of digital humanities research within the academic library setting, emphasizing special collections. The role of academic libraries is in flux with respect to the larger digital research environment. Academic institutions have varying definitions of digital humanities and offer a wide range of services for patrons working in the field, often necessitating an ad hoc support model.

This study describes a questionnaire survey of academic special collections libraries nation-wide, and four semi-structured interviews with librarians in two public universities in North Carolina. Surveys and interviews were conducted to determine the types of research support requested by patrons related to digital humanities, and the various ways in which academic libraries accommodate those requests.

Aubrey A. Klein. Digital Curation for Audiovisual Materials: Two Case Studies of Non-Academic Repositories. A Master's Paper for the M.S. in L.S. degree. May, 2018. 49 pages. Advisor: Helen Tibbo

Few studies have examined the digital curation practices of audiovisual materials from the perspective of the digital object lifecycle. With a plethora of existing video content and more being produced at a steady rate, it is important that repositories have a plan for the long-term digital preservation of their video assets. Of particular interest is audiovisual preservation outside of academic repositories. In this case study, the digital curation strategies of two non-academic repositories handling digital video assets were analyzed in relation to the digital object lifecycle. Findings from these cases provide insight into real-world practice and suggest that digital preservation planning in these environments requires more attention.

Councill Leak. A Usability Study of the CarolinaGo Mobile Application. A Master's Paper for the M.S. in I.S. degree. April, 2018. 61 pages. Advisor: Stephanie W. Haas

We are taught that user feedback should be collected and utilized throughout the system's development lifecycle of any application, however, this is not always done in practice. This was the case for UNC's official mobile application CarolinaGo. As project manager of CarolinaGo, I am not aware of any previous such internal attempts to have users evaluate the application. I decided this would be an excellent opportunity to apply my knowledge

of usability studies with the goal of producing actionable recommendations for the improvement of the app. I recruited ten students as participants to complete this task-based think-aloud usability study which also included a System's Usability Scale questionnaire and a post-task interview. After analysis of their likes, dislikes, errors, frustrations, and suggestions I have come up with several recommendations that I think would greatly increase the usability and utility of the application.

Kahlee E Leingang. Documenting the Resistance: How Three Institutions Collected Material From the 2017 Women's March. A Master's Paper for the M.S. in L.S. degree. April, 2018. 33 pages. Advisor: Denise Anthonyahlee E Leingang

This study describes the collecting practices for materials from the 2017 Women's March at the University of North Carolina's Wilson Library, Emory University's Stuart Rose Library, and the Nashville Public Library. Interviews were conducted with staff at each institution to understand how the organizations collected materials and what takeaways they had from this experience. Each institution had a different method for collecting materials and documenting this movement. Archivists and other cultural heritage practitioners can learn how different institutions collected material in order to be better prepared to document social justice movements in the future.

Chengpeng Li. Developing Fitness Group Class Recommendations Web-Application for UNC Campus Recreation. A Master's Paper for the M.S. in I.S. degree. April, 2018. 36 pages. Advisor: Arcot Rajasekar

UNC Chapel-Hill has great amount of gym facility and fitness group class services which are free to all students. However, students do have trouble in choosing the most suitable fitness group class due to many options and lacking in knowledge. For example, students who are new to fitness aren't very familiar with it. They are lacking in information about what kind of activity the class is doing as well as the best suitable class for them. Some classes are targeted to Intermediate fitness enthusiasts and may not be suitable for beginners, while some classes are entry-level courses for beginners and experienced Fitness lovers may find them boring. So it is definitely helpful if the website has detailed description of the class info, including the teacher, targeted people and brief information about the activity. For certain students, they love some teacher who have their Unique teaching methods.

Lauren K. Li. Visualization of Physical Activity Patient-Generated Health Data for Clinical Care. A Master's Project for the M.S. in I.S. degree. April, 2018. 91 pages. Advisor: Mary Grace Flaherty

This project examined the gap between physical activity patient-generated health data (PGHD) that are currently collected, versus formats or derivatives of PGHD that healthcare personnel at an internal medicine clinic would find useful (e.g. higher-level summaries or visualizations). Participants from the clinic were observed and surveyed, and a visualization was designed and prototyped based on findings from this research. Afterwards, the visualization was assessed with a utility and usability evaluation. The observation revealed points at which healthcare personnel interact with patient physical activity (PA) information in their current workflow. The survey found that overall, the healthcare personnel were most interested in seeing exercise type, minutes of moderate-to-vigorous PA, and step count. They expressed interest in using the visualization for determining PA recommendations and baselines, and for overall summarization of PA. The evaluation showed that the visualization performed at a "fair" level, but some improvements can be made.

Mingxiang Li Yelp Catering Reviews Usefulness Prediction. A Master's Paper for the M.S. in I.S. degree. April, 2018. 41 pages. Advisor: Jaime Arguello

With the widespread of online businesses, evaluation of customers' feedback is important for the online recommender systems because online reviews have become one of the most important sources of information for modern consumers before purchasing goods or using services. Many recommender systems use user-generated 'usefulness votes' in order to prioritize reviews for users, but there is much room for improvement. In this work, we attempt to predict the the usefulness vote a user will give to the reviews listed in the restaurant category. Using all features, a binary stacked ensemble model achieved a high level of accuracy (0.83). Several feature groups yielded statistically significant improvements while the features related with content don't have great impact to the usefulness. The authors present the results of the study and discuss their significance for research and practice.

Chuting Liu. A Visual Analysis to Help College Freshmen's Career Choosing – via Aspects of Education Level and Salary. A Master's Paper for the M.S. in I.S. degree. April, 2018. 40 pages. Advisor: David Gotz

This study is mainly about constructing a visualization project to help college students have a clear and intuitive view of general circumstance of occupations, so that to help them with future career choosing hopefully. Firstly, the users' potential information needs are discussed and different kinds of personas are built, then comes the visualization. The visualization interface mainly contains three graphs showing information of general occupation types, education level and salary of different positions, followed by some brief verbal analysis of the data and then the evaluation

part, which is in the form of online survey. Data used in this project is mainly second-hand data accessed via official websites of government.

Xinyi Liu. Design and Development of a Web-based Platform to Manage Information Resources Security in Higher Education. A Master's Paper for the M.S. in I.S. degree. April, 2018. 54 pages. Advisor: Arcot Rajasekar

This paper describes the design and development of a web-based platform to assess, analyze, and manage information resources security in higher education. The paper studies the types of assets, threats, and vulnerabilities that are used and faced by higher education and how-to categorize them into different security levels. The platform manages information resources by creating and operating independent security projects. It takes the user's input of asset, threat, and vulnerability information of each project as attributes and saves the data to a back-end database, then follows risk assessment metrics to calculate and determine risk value and level. Additionally, the visualization module provides the user a cross-view of all existing security projects based on the type and number of the asset, threat, and vulnerability to further assess and analyze them based on visual analytics.

Yumeng Liu. A Natural Language Processing Approach to Analyzing Consultation Visits for Treatment Decision Making for Localized Prostate Cancer. A Master's Paper for the M.S. in I.S. degree. April, 2018. 36 pages. Advisor: Fei Yu

This quantitative study investigates the information seeking and giving behaviors of doctors, prostate cancer patients and their family members during consultation visits. The dataset was a transcript of audio-recordings of real-time treatment consultations collected from 171 consultation visits in a clinical trial. For text analysis purposes, a question mark in a transcript sentence was used to signal the information seeking behavior while a period was used to signal information giving behavior. Two counting methods were adopted to investigate the effect of a decision aid intervention that was created to facilitate the prostate cancer patient consultation. Data process, cleaning and analysis were performed by Python, which shows the decision aid intervention promoted the patient's information seeking and giving behavior during the consultations. Topic analysis of specific target population showed different communication styles from Caucasian and African America population. What's more, the results contribute to the decision aid for patients and training on communications in the clinical visits.

Kehan Luo. Machine Learning Approach for Genre Prediction on Spotify Top Ranking Songs. A Master's

Paper for the M.S. in I.S. degree. April, 2018. 37 pages. Advisor: David Gotz

This paper analyzed the audio features and genres of top ranking songs on Spotify from January to August in 2017. The dataset consists of daily top ranking songs, their audio features and genres. The data was collected from Kaggle.com, Spotify Web API, and Discogs AIPs. Analysis contains summary statistics, principal component analysis, and machine learning classifier implementation and evaluation. The principal component analysis converted nine audio features into three principal components and they are named as sound, words in lyrics, and rhythm according to the description of audio features they include. The machine learning method takes audio features and genres as input and predicts genres for songs in the test set based on their audio features. The classifier achieved 46.9% accuracy which is not as good as expected. Detailed procedures, results and analysis are provided.

Heather L McGowan. But Where Is That Tape?: The Effects of Processing and Arrangement of MixedMaterial Archival Collections on the Discoverability of Audiovisual Materials in Online Finding Aids. A Master's Paper for the M.S. in L.S. degree. April, 2018. 38 pages. Advisor: Denise Anthony

Academic archives and special collections are acquiring a growing number of collections that contained mixed-format, mixed-material, or mixed-media items. This paper seeks to understand both how and why academic archives are processing, arranging, and describing audiovisual materials within these mixed-materials collections. Through interviews with nine archivists at large, academic archives and an examination of both existing finding aids and processing manuals, this research examines the disparity between theory and practice of the processing of mixed-material collections and the subsequent discovery of the audiovisual material by users of online finding aids.

Jesse Moore. Product, Process, and Photographs: Archival Workflows and More Product Less Process (MPLP) in Large Film Photography Collections. A Master's Paper for the M.S. in L.S. degree. April, 2018. 78 pages. Advisor: Christopher A. Lee

This study explored the workflows used by institutions for processing large film photography collections. I conducted semi-structured interviews with professionals from seven cultural heritage institutions and created workflow maps to visualize the procedures that each institution followed when processing their collections. By creating these workflow maps, I intended to demonstrate the similarities and differences between the institutions' arrangement and description practices for

processing large film photography collections. I also asked participants questions to investigate whether Greene and Meissner's More Product Less Process recommendations influenced how their institutions processed large film photography collections. Although each of the participating institutions described some or all of their collections at the item level, many used aspects of minimal processing in their workflows.

Lauren E Murphree. Wrangling the Lone Arranger: The Management Practices of Solo Archivists. A Master's Paper for the M.S. in L.S. degree. April, 2018. 50 pages. Advisor: Denise Anthony.

This paper describes a research study focused on the management practices of solo archivists, known in SAA as the "Lone Arrangers." Following a literature review, a gap in information about solo archivists and their actual daily practices was identified. An initial survey was used to identify a pool of archivists to interview. The following interviews sought to discover how solo archivists, in their challenging positions, manage the day-to-day tasks and decisions required by their jobs. The findings showed that these archivists develop a strong intuition informed by priorities, flexibility, and personal boundaries which allows them to balance multiple duties every day.

Devon Murphy. The Information Worlds of Art Museum Curators and Registrars: an Institutional Ethnography of Practice in North Carolina Institutions. A Master's paper for the M.S. in I.S. degree. April, 2018. 97 pages. Advisor: Ryan Shaw.

This paper presents an institutional ethnography analysis of the information worlds of art museum curators and registrars to determine what information sources were used by art museum staff in specific work tasks. This study was conducted in four art museums in North Carolina; the Mint Museum in Charlotte, NC, the Ackland Art Museum in Chapel Hill, NC, the Nasher Art Museum in Durham, NC, and the Weatherspoon Art Museum in Greensboro, NC. Six curators and four registrars took part in the study, which consisted of interviews and information horizon maps. The results demonstrate a wide use of both digital and print sources used in work tasks, with an emphasis on utilizing document surrogates in lieu of the physical art object. However, difficulties in accessing information about art objects in other collections was widely reported, making planning exhibitions and conducting research more timeintensive. Further study into museum websites and catalogs is encouraged.

Hannah Noël. A Content Analysis of the Representation of Black Girls in Children's Picture Books. A Master's Paper for the M.S. in L.S. degree. April, 2018. 58 pages. Advisor:

Brian Sturm.

This study used qualitative content analysis to determine if there is a difference in the way that black girls were depicted in children's picture books in the 1990s compared to their portrayal in the genre now. This study sought to identify the consistent, overarching themes appearing in each book and to determine whether these themes promote a positive representation of this demographic. Seventeen children's picture books featuring black girls as protagonists were selected and analyzed in depth using studies examining the diversity of children's literature as a guide. This study found that the depiction of black girls in this medium has not evolved much over the past twenty years, though not for the worse; many of the most positive themes, promoting ideals such as empowerment, culture and heritage, and relying on one's family for love and support, were found more or less consistently throughout each book, regardless of publication date.

Jennifer O'Bryan. "Why Would She Want to Read About Such Horrible Things?": The Appeal of War as a Reading Interest for Girls. A Master's paper for the M.S. in L.S. degree. April, 2018. 52 pages. Advisor: Brian W. Sturm

Reading appeal research has historically identified war as a topic of reading interest that correlates strongly with gender. Boys are traditionally much more likely than girls to read books involving war, and many girls prefer to avoid the topic. At the same time, research has consistently found smaller but significant numbers of girls who choose to read in this subject area. Using qualitative analysis of indepth, semi-structured interviews, this study explored the appeal factors at play for five 11- and 12year-old children who identify as girls (four in whole, one in part) who enjoy reading about war.

Traditional reading appeal factors that were sought by these readers included action-packed storylines, an attention-grabbing writing style, fast or intensifying pacing, courageous characters, and a dramatic, suspenseful tone. Learning about historical events played an important role for readers of historical fiction, while fantasy fans were drawn to the presence of strong female characters working alongside males in an adventurous storyline. Gender issues pervaded the discussion, revealing feelings of powerlessness and inequality. Several participants reported benefits that aligned with outcomes associated with bibliotherapy as well as closer connections to men in their lives. The results of this study can support librarians in providing gender-transformative readers' advisory services and assist other researchers in understanding gender dynamics in the middle grade years.

Jaffa Panken. Tracking Seeds and Crawls for Archive-It Web Archives: A Search for Best Practices. A Master's

Paper for the M.S. in I.S. degree. April, 2018. 45 pages. Advisor: Helen Tibbo

As web archives grow larger, institutions using Archive-It must keep track of a growing number of seeds and crawls. Managing this data often requires outside tools to create records of quality assurance efforts, scoping guidelines, and records for future colleagues and researchers to contextualize the archived websites. In an exploratory study of tracking systems for web archives, over twenty web archivists responded to a Qualtrics survey about their tracking practices as well as the reasons behind those practices. The survey revealed that only half the participants currently track seeds and crawls outside of Archive-It. Those who do track often rely upon spreadsheets, particularly for quality assurance and designing scoping guidelines. After reviewing the affordances of spreadsheets in light of participants' stated priorities for tracking, the study suggests alternative practices for tracking seeds and crawls. This study is a crucial first step towards establishing best practices for documentation of web archives.

Claire C. Payne. Retrieval of LGBTQ+ Recreational Reading Material: A Comparative Study. A Master's Paper for the M.S. in I.S. degree. May, 2018. 103 pages. Advisor: Melanie Feinberg

Over the past few decades, a sizeable body of library and information science literature has pointed to the inadequacies of traditional cataloging and classification systems for describing material related to marginalized communities. At the same time, alternative metadata systems have proliferated in online environments and social tagging has become almost ubiquitous. Focused specifically on the retrieval of LGBTQ+-related recreational reading materials, this study used an online survey to assess the utility of traditional library systems in comparison with the utility of the user-moderated folksonomy employed in the Archive of Our Own (AO3) fanwork repository. Results indicated that respondents, who were generally comfortable in both the library and Archive environments, preferred using AO3 to access LGBTQ+ material and perceived the tagging system to be of greater value in search processes than typical subject access mechanisms. Several possible avenues for improving current systems emerge in the conclusion of the paper.

Katharine W. Ray. A Motivating Climate: An Exploratory Study of the DataRescue Movement. A Master's Paper for the M.S. in L.S. degree. May, 2018. 58 pages. Advisor: Christopher A. Lee.

This study explores motivations in the DataRescue movement of 2017 that led to the identification and archiving of at-risk federal environmental data in digital repositories. It describes interviews with three national DataRescue coordinators involved in Data Refuge and the Environmental Data and Governance Initiative (EDGI) and analyses of their organizations' websites. Particularly, it looks at the impact of federal record-keeping laws on DataRescue and whether organizers considered the data's eventual users.

Motivations for these projects included determining the scope of at-risk federal environmental data, communicating and raising awareness of the risk, and creating a long-term plan for access to and preservation of data. Environmental data justice (EDJ) was a stated principle for the DataRescue movement, and organizers utilized storytelling to demonstrate environmental data's impact on people's lives. The existence of federal record-keeping laws impacted DataRescue events only insofar as participants saw the laws protecting data as inadequate.

Samuel S. Robinson. Hiding in Plain Sight: An Exploration of the Classification of LGBT Materials in Libraries and Bookstores. A Master's Paper for the M.S. in L.S. degree. April, 2018. 38 pages. Advisor: Melanie Feinberg

The goal of this study has been to analyze the classification of prominent, award winning books on LGBT topics, to see how these topics are being treated in libraries and bookstores today. These materials have, in the past, been placed in a variety of locations throughout the library, sometimes with unsavory connotations. This study, however, does more to show the limited reach of even the most acclaimed fiction and nonfiction LGBT titles in today's libraries and bookstores, with eleven books from the sample appearing in three or fewer institutions. Those books that were frequently held across all institutions visited were frequently organized alphabetically by author or topic, and very few of them were discoverable or browsable based upon their LGBT content.

Jenni L. Royce. Narrative and Collaborative World Building in Tabletop Role-Playing Games. A Master's Paper for the M.S. in L.S. degree. April, 2018. 45 pages. Advisor: Brian Sturm

This study examines the interaction between narrative and collaborative worldbuilding and premade, extensive rulesets in tabletop role-playing games. This study specifically looks at the game *Dungeons and Dragons* 5th edition and included interviews with six participants on how they balanced the collaborative narrative environment and expressing creativity while working within a system with extensive rules and guidelines for how the game functions.

While participants did acknowledge that the rules were important, the rules themselves function more as paratexts, or guidelines. They functioned to create a consistent, understandable environment within which to create a

narrative, but participants recognized that if these guidelines hamper the enjoyment or flow of the game and story they could be changed or ignored for the players' benefit. Furthermore, players were more likely to break the rules or allow others to do so if there was a creative and interesting narrative purpose, as it was important to allow all players to have agency and input in the narrative and to ensure that the story itself was enjoyable for all involved.

Lucy Saiheng. Usability Evaluation for 360 Video Using Head Mounted VR Display and A Mobile Phone VR Holder. A Master's Paper for the M.S. in I.S. degree. April, 2018. 54 pages. Advisor: Bradley M. Hemminger

This paper evaluated the usability of two VR displays (head mounted display and a mobile phone VR holder) by using six metrics: ease of use, engagement, emotion, comprehension, enjoyment, and comfortableness. The paper also evaluated different focusing techniques for 360 videos and provided a recommendation for future work. A total of 20 participants (10 participants for each subject) participated in this study, and all of the participants were recruited from University of North Carolina at Chapel Hill. The quantitative result was evaluated by the six metrics and the qualitative data from the interview responses were used to help interpret the results. The results showed there was no significant difference between two devices when it comes to watching 360 videos in general. However, there was significance in individual measurements like comprehension and enjoyment level, which were affected by tasks and devices.

Dena B Schulze. The Second Act of Analog Film: Promotion of Analog Film in the Digital Age. A Master's Paper for the M.S. in L.S. degree. April, 2018. 52 pages. Advisor: Denise Anthony

This study aims to discover if and how archivists promote their analog film collections through outreach events. The researcher also wanted to learn how archivists felt about analog film in the digital age. The study utilized a survey sent out through the Association of Moving Image Archivists email listserv; a post-survey was sent out to willing participants to help draw final conclusions. The survey showed that outreach activities are occurring, and analog film is still valuable to archivists but as many studies show, resources and challenges limit the amount that can be done. The study supported the tension between digital files and analog film, and future trends will determine if analog film continues to be promoted for future generations.

Jessica L. Serrao. The Archival Image Revisited: An Analysis of Archival Encounters Portrayed By Genealogy Television Programming. A Master's Paper for the M.S. in L.S degree. April, 2018. 87 pages. Advisor: Denise Anthony

This study explored how reality genealogy television programming portrayed archival encounters to public viewers during journeys of family discovery. It analyzed content from prime time shows *Who Do You Think You Are?* and *Finding Your Roots with Henry Louis Gates, Jr* to understand how portrayals of archives, archivists, archival materials and research aligned with traditional archival stereotypes and the professional archival image. The author expanded upon previous research on the archival image and stereotypes in media by analyzing contemporary programs popular among genealogists, one of the largest constituents of archives. The study found some stereotypes were upheld while others were absent, and others were ambiguously portrayed. The findings suggested that reality genealogy television programs failed to deliver a nuanced depiction of the archival profession. The author suggested that increased public outreach and collaboration could help improve the archival image and spread understanding of the role of archives in society.

Susan J. Smith. What I Talk About When I Talk About Data Management: An Exploration Into Data Management Practices By Health Sciences Researchers. A Master's Paper for the M.S. in I.S. degree. April 2018. 43 Pages. Advisor: Mary White

Grant funders are increasingly requiring documented data management plans that stipulate access to and preservation of research data. Few studies have researched the data management behavior of health sciences researchers since these requirements were implemented in the early 2010s. This paper explores data management behavior by researchers in health sciences setting. Through 11 interviews, researchers were asked about the processes and tools they use to share research data with teammates and with external researchers. They were also asked about any current practices that facilitate or result in long-term preservation of their data. The outcome of this study is that, while researchers are well versed in short-term management of their data throughout the lifetime of a research project, there is room to improve long-term preservation efforts. These findings may help inform information professionals about their outreach and approaches to facilitate data access and preservation that aligns with the requirements of research sponsors.

Alyssa A. Spoonts. Understanding Gaps in Special Collections Education Through a Content Analysis of Syllabi. A Master's Paper for the M.S. in L.S. degree. April 2018. 35 pages. Advisor: Elizabeth Ott

This study aims to understand the gaps in the education of future special collections professionals by examining syllabi for rare book and special collections librarianship courses. The history of library education will show that special collections coursework

has not historically held an important place in library school curricula. Today, however, courses in rare book and special collections librarianship are an essential means by which future special collections professionals develop the specialized skills needed for success in the profession. Using content analysis, this study compares syllabi for special collections librarianship courses at ALA-accredited library and information science programs with ACRL's *Guidelines: Competencies for Special Collections Professionals* to identify gaps and overlooked areas in library school curricula.

Samuel L Stokes. The Information Seeking Behavior of Successful Websleuths. A Master's Paper for the M.S. in I.S. degree. April, 2018. 56 pages. Advisor: Denise Anthony

Websleuths are private citizens who spend their spare time using publicly available information usually found online in pursuit of finding the identity of previously unidentified bodies (UIBs). Typically, they seek to find matches between UIB and missing persons profiles found at online databases administered by government agencies and interested groups. However, in many cases the data listed on these databases are missing or incorrect. For this study, I interviewed seven websleuths who have successfully identified UIBs. The purpose of this study is to examine the information seeking behavior of this previously unstudied group as well as to understand how they successfully navigate unreliable information systems for an important purpose. The study results indicate that these cases are solved through dogged persistence and unique heuristics developed as a result of years of experience.

Ju Shua Tan. Social Bot in Social Media: Detections and Impacts of Social Bot on Twitter Users. A Master's paper for the M.S. in I.S. degree. April, 2018. 107 pages. Advisor: Bradley M. Hemminger

A social bot is a computer algorithm that automatically produces content and interacts with humans on social media, trying to emulate and possibly alter their behavior. Social bots have inhabited social media platforms for the past few years. Although the initial intention of social bot might be benign, existence of social bot can also bring negative implication to society. For example, in the aftermath of Boston marathon bombing, a lot of tweets has been retweeted without people verifying its accuracy. Therefore, social bot might have the tendency to spread fake news and incite chaos in public. For example, after the Parkland, Florida school shooting, Russian propaganda bots are trying to seize on divisive issues online to sow discord in the United States.

This study describes a questionnaire survey of Twitter users about their Twitter usage, ways to detect social bots on Twitter, sentiments towards social bots, as well as how the users protect themselves against harmful social bots. The survey also uses an experimental approach where participants upload a screenshot of a social bot. The result of the survey shows that Twitter bots bring more harms than benefits to Twitter users. However, the advancement of social bots has been so great that it has been hard for human to identify real Twitter users from fake Twitter users. That's why it is very important for the computing community to engage in finding advanced methods to automatically detect social bots, or to discriminate between humans and bots. Until that process can be fully automated, we need to continue educating more Twitter users about ways to protect themselves against harmful social bots.

Y Tang. Understanding Usage of Public Bike Sharing System: Citi Bike as an example. A Master's Paper for the M.S. in I.S. degree. April, 2018. 49 pages. Advisor: Arcot Rajasekar

In recent years, bike sharing systems ushered in the explosive growth. The growth of bike sharing systems brings both health benefits and environmental benefits. This study is a data analysis project that investigate the usage pattern of bike sharing system using Citi Bike open source data. This study studied the influence of weather and date on the bike usage, and compare the characteristic usage pattern of two different gender group. Based on that, this study provide a bike demand prediction and user gender prediction model. Also, with the comparison on usage of NY taxi, this study analysed when people prefer Citi Bike and verify that Citi Bike can be an ideal alternative transportation to taxi.

Lia Walberg. News Coverage of Government Email Scandals. A Master's Paper for the M.S. in I.S. degree. April, 2018. 70 pages. Advisor: Christopher A. Lee

In this paper, I ask what news coverage of scandals involving the emails of prominent politicians can tell us about why the American public considers these emails to be important. I performed a qualitative content analysis on news articles related to five specific cases to answer this question. I found that the most prominent reason across cases for why authors of these articles expressed interest in the controversies was that they helped to expose character flaws of prominent politicians. However, I also found that the individual circumstances of the cases played a significant role in the reasons for interest in those cases. Ultimately, I hope that a better understanding of the motivations behind these scandals can help records professionals to better manage the risk associated with the records in their care.

Tian Wang. Predictive Analysis on eSports Games – A Case

Study on League of Legends (LoL) eSports Tournaments. A Master's Paper for the M.S. in I.S. degree. April, 2018. 46 pages. Advisor: Arcot Rajasekar

This paper discusses about how different features influence League of Legends eSports game results. Logistic regression and decision trees are used as the main predictive analysis methods for making a prediction. In this study, three types of features: champion selection, in-game factors, and player performance, are tested to see how closely they are related to the game results. This paper also compares the similarity and difference between predictive analytics on traditional sports and eSports games, and discusses about potential approaches to improve eSports prediction accuracy in the future.

Beth Morris Weiss. Collaborative Educational Programs for Grades 6-12: A Study of Partnerships between Special Collection Librarians and Educators. A Master's Paper for the M.S. in L.S. degree. April 2018. 48 pages. Advisor: Denise Anthony

This paper considers how collaborative educational programs for using primary source materials are initiated and sustained between special collections librarians and school groups of young adults in grades 6-12. In particular, this study focused on on-going programs that met more than once where students used primary sources. Semi-structured interviews with three teachers, a school media specialist, a museum historian, a state librarian, and two public librarians were conducted to identify effective practices of four such collaborations conducted between 2009 and 2017: Brooklyn

Connections, the Bangor, Maine Life on a Tidal River online exhibits, a Daily Record transcription project in Wilmington, North Carolina, and the R.O.A.D. Project in Indianapolis, Indiana. Findings point to common factors for successful programs including accessible and interesting primary sources, providing students time for meaningful research, delivering help from experts, providing customized content, proficiency working with middle or high school students, and nurturing relationships for partnerships.

Qichen Yu. Apply Text Mining Analytics to Virtual Reference Services: A Case Study on the Email Q & A Service at an Academic Health Sciences Library. A Master's Paper for the M.S. in I.S. degree. May, 2018. 52 pages. Advisor: Fei Yu

Academic libraries receive and reply numerous of patrons' emails via their virtual reference service, such as Ask a Librarian. This paper presented a text mining approach to analyzing one-year email records accumulated from the Ask-a-Librarian service by the Health Science Library (HSL) at the University of North Carolina at Chapel Hill. This study will help HSL improve their

email service by revealing key topics from user questions and the characteristics of user information seeking behavior.

Yufei Zhang. Increasing the Transparency of Survey Re-Weighting Using Visualization. A Master's Paper for the M.S. in I.S. degree. April, 2018. 43 pages. Advisor: David Gotz

Surveys are widely used for a long time by collecting data from a sample and further making reasonable target population. However, generally, sample cannot fully represent target population. Thus, predictions made from surveys contain biases. To eliminating biases, subgroups inside sample can be reweighted to match target population. This paper introduces an interactive tool to visualize the reweighting process in surveys, especially in presidential polls. A detailed description of system's webbased user interface and algorithm are provided. In addition, results of user studies that evaluating the system with twenty users are presented and discussed.

Huan Zhao. Data Visualization and Analysis about Physicians' Payment Data. A Master's Paper for the M.S. in I.S. degree. Apr, 2018. 39 pages. Advisor: Arcot Rajasekar

In this paper, I analyze the relationship between the number of patients that have been identified with a specific type of disease and the physicians' total charge amount. I hold the assumption that the more states within a region that show statistical significance in the relationship, the more serious the disease in that region will be. But after doing a detailed analysis and visualization, I found the assumption to be invalid. However, I found the incidence rate for some of the diseases were related to geographical location. Therefore, I did a comprehensive research to find the reason for this relationship from different perspectives as well as provide some recommendations.

Wanchen Zhao. Visual Query System to Help Users Refine Queries from High-Dimensional Data: A Case Study. A Master's Paper for the M.S. in I.S. degree. April, 2018. 66 pages. Advisor: David Gotz.

Temporal queries are normally issued for cohort selection from the high-dimensional dataset in many contexts, such as medical related research areas. The idea was inspired by the difficulties when interacting with the i2b2 system, an NIH-funded National Center for Biomedical Computing based at Partners HealthCare System, which seldom provides informative feedbacks and interactive exploration about the clinical events of each query or the expecting follow-up cohort. Considering the complexity and time-consuming nature of complicated temporal queries, it would be frustrating when iterative query refining is needed. The paper presents a newly designed web-based visual

query system to facilitate refining the initial temporal query to select a satisfactory cohort for a given research. A detailed interface design associated with the query time frame and the implementation of the visual query algorithm that enables advanced arbitrary temporal query logic is included. In addition, a case study with 3 participants in medical related research areas was conducted that shows the system was overall useful to help the users to gain an idea about their follow-up queries.

Andi Zhou. Direct Answers or Brief Informative Suggestions? Performance of Different Types of Search Assistance Tools on Different Types of Search Tasks. A Master's Paper for the M.S. in I.S. degree. April, 2018. 36 pages. Advisor: Robert Capra

While search assistance tools can help users with their search in various ways, would they always be effective for every type of search task? This study explored the different performance between two kinds of search assistance tools on exploratory tasks and comparative tasks. A user study was conducted on an experimental web search interface with the search assistance widget displaying on the right-hand side. Each participant was asked to do exploratory and comparative tasks on each search assistance tool. We collected and analyzed data from participants' web logs, pre-test and post-task questionnaires, and the semi-structured interviews by the end of the study sessions. The findings suggest the effectiveness

of each type of search task is different between the two search assistance tools; the dimension assistance is more helpful in comparative tasks whereas the link-suggesting assistance is more favored by exploratory tasks.

Matthew S. Zimo. Considerations on Migrating to an Open Source Integrated Library System. A Master's Paper for the M.S. in I.S. degree. April, 2018. 50 pages. Advisor: Bradley Hemminger

There is a large amount of published case studies of school, public, and academic libraries migrating from proprietary to open source integrated library systems (ILS). This is an attempted case study of a special library's migration to an open source ILS. The most promising ILSs for US-based special libraries are Koha and OPALS.

Julia G. Zoltners. Moving Beyond "Schlocky": Interpersonal Relationships as Depicted in Star Reviewed Young Adult Novels. A Master's Paper for the M.S. in L.S. degree. March, 2018. 77 pages. Advisor: Brian Sturm

This study was conducted to identify important trends in the relationships that are depicted in young adult novels and to examine whether or not the observed relationships follow gendered patterns. A content analysis was conducted of 14 starred reviewed young adult novels, and findings were then compared to the trends observed in the psychological literature regarding adolescent relationships, to determine how closely the depictions within the novels map onto the established body of scholarly literature on adolescent relationships. Family and friend relationships were the most prominent within this study. Sibling relationships were found to have gendered patterns while parental and friend relationships did not. Romantic and sexual relationships in this sample were not as prevalent as the psychological literature suggested. Overall, the relationships described in the psychological literature closely map onto the relationships found in the sample suggesting that contemporary young adult novels depict realistic relationships for young adults.

Hilda A. Highfill and Richard H. Leach, North Carolina Board of Higher Education

Libraries in North Carolina Public Senior Colleges: Present Status and Future Needs

The libraries in most of the colleges and universities in North Carolina suffer from severe deficiencies in holdings, shortages in qualified personnel, and inadequate space. The problems faced by the libraries result in large part from recent increases in numbers ot undergraduates, graduate students, and faculty, expansion and proliferation of academic programs; the phenomenal increase in the number of books and periodicals being publishcd; high deterioration rates of existing holdings; and generally inadequate financial support. College and university administrators and governing boards are aware of library deficiencies and are struggling to remedy them. The General Assembly has also recognized the problems, as illustrated by recent appropriations for new library buildings. The problems remain severe, however, and they cannot be resolved without a great deal more attention and support.

The major criteria for judging the adequacy of a library are its holdings, its personnel, and its physical facilities. These, along with library usage, financial support, the impact of technology, and the need for cooperation among libraries, are discussed in this report.[1]

Holdings

There are two basic types of college and univeristy libraries: the "college library," used primarily by the undergraduate student, and the "university library," designed to serve the needs of the developing scholar and the specialist and to support advanced instructional programs and research. Although both types of libraries in North Carolina have serious deficiencies, the situation is more critical in university libraries than in college libraries.

The three basic components of a library's holdings are books, periodicals, and government publications. The Association of College and Research Libraries suggests that for every book needed by a freshman or sophmore, two are needed by a junior or senior, three for honors programs, and four at the graduate level. A widely utilized formula for determining library needs indicates that in every area of concentration a master's degree candidate requires more than nine times as many volumes to draw upon as an undergraduate, and a doctral candidate more than eight times as many volumes as a master's candidate.

The numher of volumes held by most public college and university libraries in North Carolina is markedly deficient. The Association of College and Research Libraries concludes that no library can be expected to give effective support to the instructional program of a college with 600 or fewer undergraduate students without at least 50,000 carefully chosen volumes and that as enrollment increases, additional volumes are necessary in the ratio of 10,000 volumes for each additional 200 students.[2]

On the basis of these minimum quantitative standards (see Table I) only five of North Carolina's public senior institutions met the requirements for college undergraduate libraries in the 1967-68 academic year: the University of North Carolina at Chapel Hill, the University of North Carolina at Greensboro, North Carolina Agricultural and Technical State University, North Carolina College, and Asheville-Biltmore College.[3] When higher quantitative standards for university libraries are applied to the four campuses of the Universtty of North Carolina and to the four regional universities, the library holdings in only two of these approach the standard — the University of North Carolina at Chapel Hill and the University of North Carolina at Greensboro.

1. This study is adapted from *Planning for Higher Education in North Carolina*. Special Report 2-68 (Nov. 1968). Raleigh, North Carolina, Board or Higher Education. Made with the assistance of Robert B. Downs, Dean of Library Administration. University of Illinois, consultant to the Board or Higher Education.

2. See Verner W. Clapp and Robert T. Jordan, "Quantitative Criteria for Adequacy of Academlc Library Collections," *College and Research Libraries*, (September 1965): 371-80. The Clapp-Jordan formula has seven variables, expressed in terms of volumes, as follows: to a basic undergraduate library collection of 50,750 volumes, add 100 volumes for each full-time equivalent faculty member, 12 volumes for each FTE student, 12 volumes for each undergraduate honors student, 335 volumes for each field of undergraduate concentration or "major subject" field, 3,050 volumes for each field of master's concentration or equivalent, and 24,500 volumes for each field of doctoral concentration or equivalent.

3. The library of the Norh Carolina School of the Arts is excluded from the remarks in this report because or the special purpose of that institution.

Table I Holdings of North Carolina Public College and University Libraries Compared with ACRL Standards and Deficiencies

Institution	Fall 1967 FTE Enrollment*	No. of Vols. June 30, 1968	ACRL Standard	Deficiency
University of N.C.				
N.C. State U.	9,294	426,304	480,000**	53,700
UNC-Chapel Hill	14,743	1,514,315	750,000**	—
UNC-Charlotte	1,721	92,524	107,500**	15,000
UNC-Greensboro	4,673	375,488	250,000**	—
5-Year Institutions				
Appalachian	4,624	161,624	250,000	88,400
East Carolina	8,914	328,552	465,000	136,500
N.C. A and T	3,715	261,944	200,000	—
N.C. College	2,934	171,754	160,000	—
Western Carolina	3,746	83,263	207,500	124,000
4-Year Colleges				
Asheville-Biltmore	571	52,171	50,000	—
Elizabeth City	934	59,105	67,500	8,400
Fayetteville	1,143	63,140	77,500	14,400
Pembroke	1,484	43,435	95,000	51,600
Wilmington	1,179	45,061	80,000	34,900
Winston-Salem	1,266	73,279	82,500	9,200

* The demands made on libraries, especially at the graduate level, may be more accurately reflected by a headcount of students than by "full-time equivalent" enrollment.

** Association of College and Research Libraries standards are not comparable for universities and are intended for four-year institutions with no or limited master's programs.

The North Carolina public college and university libraries do not compare favorably with those of the private institutions in the state in the number of volumes per full-time equivalent student (see Figure 1). It should be a matter of high priority to eliminate deficiencies in library collections at all institutions as rapidly as high possible. Wherever appropriate, librarians, working cooperatively with their faculties, should utilize standard lists prepared by outstanding specialists in choosing titles to strengthen their holdings qualitatively.

The University of North Carolina at Chapel Hill has one of the major libraries in the nation. Its holdings as of June 30, 1968, ranked third among university libra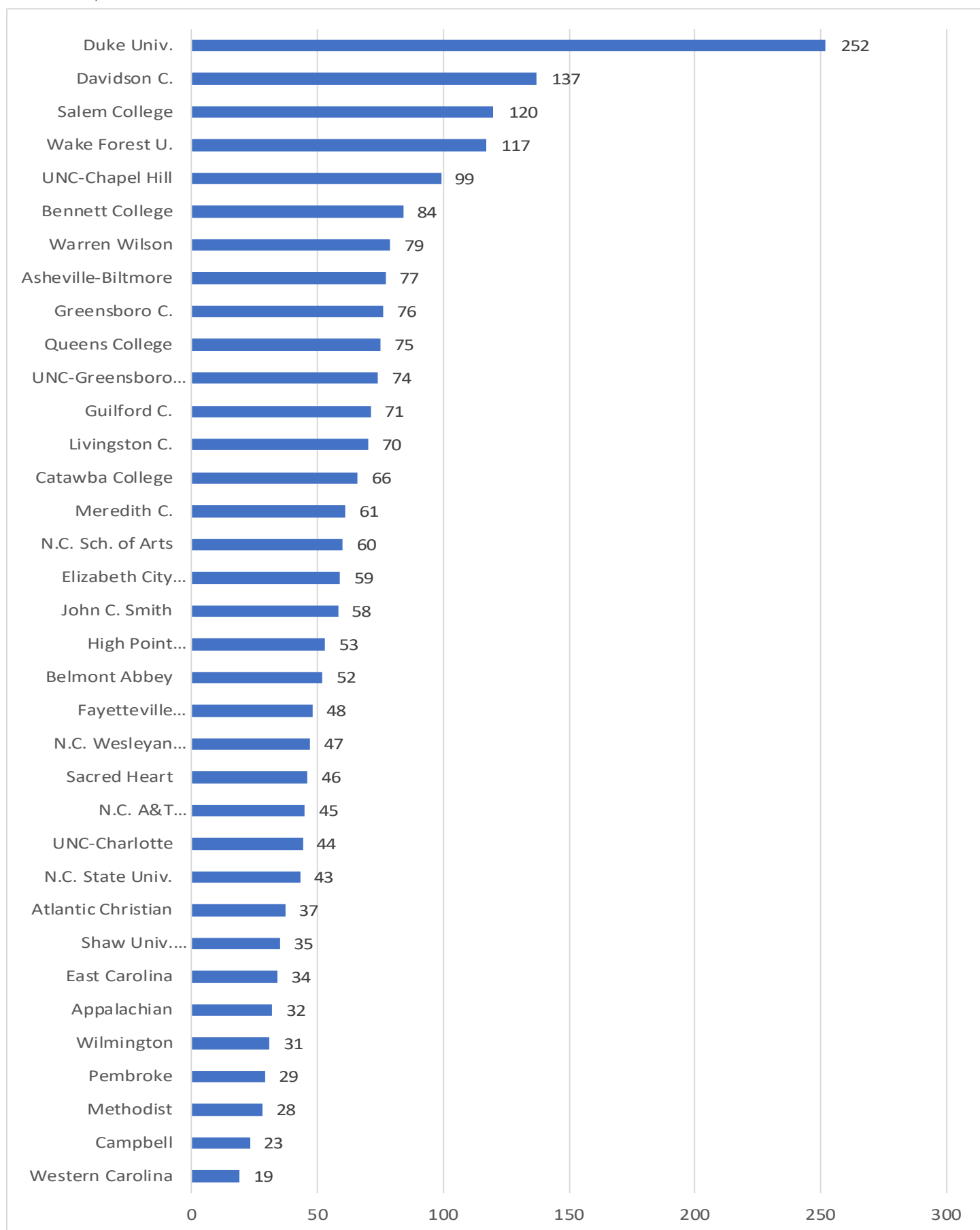ries in the South, 11th among public institutions generally, and 23rd among all university libraries in the country. A conservative estimate places the value of its holdings in excess of $20 million. A statewide asset, it stands alone among the libraries of public institutions in the state and is excelled in North Carolina only by the library at Duke University.

The library deficiencies at North Carolina State University, however, are alarming in view of its extensive graduate programs. Altogether 35 doctoral and 54 master's degree programs are now offered at North Carolina State in agriculture and engineering, in the biological and physical sciences, and in several of the social sciences. As of June 1968, however, the North Carolina State University library was deficient by 903,746 volumes based upon a university standard that takes into account size and complexity of programs; it was over 50,000 volumes short of meeting the standards even for a four-year college of its size. It is clear that library resources at North Carolina State University, with the possible exeception of periodicals and microreporductions (see below), have not kept pace with the academic and research growth of the instatution.

In addition to books, periodical literature is of basic importance in virtually all fields of education, and the need to build up full sets of back issues and to develop and improve current serial collections is generally recognized. A college library should maintain a minimum collection of 1,000 periodicals to provide adequate representation of the tens of thousands of magazines and scholarly journals being

Figure 1 Number of bound volumes per full-time equivalent student in North Caroina public and private senior colleges and universities, 1967

Institution	Volumes
Duke Univ.	252
Davidson C.	137
Salem College	120
Wake Forest U.	117
UNC-Chapel Hill	99
Bennett College	84
Warren Wilson	79
Asheville-Biltmore	77
Greensboro C.	76
Queens College	75
UNC-Greensboro...	74
Guilford C.	71
Livingston C.	70
Catawba College	66
Meredith C.	61
N.C. Sch. of Arts	60
Elizabeth City...	59
John C. Smith	58
High Point...	53
Belmont Abbey	52
Fayetteville...	48
N.C. Wesleyan...	47
Sacred Heart	46
N.C. A&T...	45
UNC-Charlotte	44
N.C. State Univ.	43
Atlantic Christian	37
Shaw Univ....	35
East Carolina	34
Appalachian	32
Wilmington	31
Pembroke	29
Methodist	28
Campbell	23
Western Carolina	19

published today; university libraries should be receiving considerably larger number geared to their individual programs and needs. In terms of current subscriptions to periodicals, only the University of North Carolina at Chapel Hill and North Carolina State are equipped to support a full range of university study research, while only the libraries at the University of North Carolina at Greensboro and East Carolina are in this respect sufficient to support masters' level work. The other four public institutions which offer the master's degree (Appalachian, North Carolina Agricultural and Technical, North Carolina College at Durhan, and Western Carolina) have periodical holdings inadequate to support master's level work. Libraries at Elizabeth City, Fayetteville, Pembroke, Wilmington, and Winston-Salem also receive a low number of current periodicals.

Another type of material, microreproductions, is of increasing importance in university and research libraries. Microreproductions come in varions forms — micorfilm, microcard, microprint, and microfiche — all of which require the use of reading machines. The chief use of microreproductions is for research-type materials, otherwise unavailable, needed by faculty members and graduate students. In nearly all cases, originals are easier to use and preferable to microcopies. The United States Office of Education, in publishing libary statistics, reports microforms separately and not as volumes.

Newly-established libraries, and particularly those in institutions which are rapidly developing into universities, can through these devices make rare and out-of-print materials available without the long delay required in searching for original copies, needed

resources, such as rare books, large sets, documentary series, journal and newspaper files, frequently are available in no other medium. Some of the North Carolina Libraries are making considerable use of microforms, as is shown by the following data on microform holdings: the University of North Carolina at Chapel Hill, 280,441; North Carolina State, 254,039; East Carolina 155,071; and the University of North Carolina at Charlotte, 48,981. Microreproduction holdings at the other public institutions are considerably less.

Government publications make up the third basic component of holdings in an adequate college or university library. At present all public senior insuttions in the state except Elizabeth City, Fayetteville, North Carolina College. and Winston-Salem are depository libraries, and as such receive major publications of the Federal Government on a selective basis. Only the University of North Carolina at Chapel Hill has adequate collections of state and local government publications.

Personnel

A second major criterion in judging the strength of a library is the quality and size of its staff. Without a competent staff, a library will offer inferior services. Salaries are the largest single item in the budgets of leading college and university libraries.

The adequacy of professional staff is reflected by the ratio of full-time equivalent students to the number of professional staff members. The ratio accepted by Canadian librarians is one professional librarian to each 300 students; no specific standard has yet been adopted by American college and university librarians. Table II shows the ratios of professional staff to full-size equivalent students in 15 public senior

college and university libraries in North Carolina as of June 30, 1968.

Only five institutions — the University of North Carolina at Chapel Hill, the University of North Carolina at Charlotte, Asheville-Biltmore, North Carolina College at Durham, and Wilmington — meet the suggested 300 to l ratio. The ratios at four libraries — Appalachian, the University of North Carolina at Greensboro, Elizabeth City and Winston-Salem — are marginal; the remaining six libraries are seriously understaffed.

The standards[4] of the Association of College and Research Libraries state that the size of the staff will vary with the size of the institution, but three professional librarians constitute the minimum number required for effective service, i.e., the chief librarian and the staff members responsible for readers services and technical processes ... in addition to the professional librarians, the library should have an adequate non-professional staff.

There should normally be two clerical workers for each professional librarian, or the equivalent in student assistants, though as a rule student help cannot be expected to perform as effectively as do competent full-time workers. While only Fayetteville State College fails to meet the minimum of three professional librarians, seven institutions (Appalachian, East Carolina, Elizabeth City, North Carolina College, Pembroke, Wilmington (and Winston-Salem) are deficient in the ratio of clerical assistants to professional librarians. Two libraries are inadequate both in professional and clerical staff — East Carolina and Pembroke State. In all libraries present staff, professional and clerical, cannot be expected to cope with the additional numbers of books withic will be

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4. "Standards for College Libraries." *College and Research Libraries* (July, 1959): 275.

Table II Ratio of Professional Library Staff to Full-Time Equivalent Enrollment in North Carolina Public Senior Colleges and Universities, Fall 1967

Institution	Fall 1967 FT Enrollment	Number of Professional Library Staff*	Number of Students Per Professional
University of N.C.			
N.C. State U.	9,294	18	516
UNC-Chapel Hill	14,743	66	223
UNC-Charlotte	1,721	9	191
UNC-Greensboro	4,673	14	334
5-Year Institutions			
Appalachian	4,624	15	308
East Carolina	8,914	24	371
N.C. A and T	3,715	8	464
N.C. College	2,934	14	210
Western Carolina	3,746	7	535
4-Year Colleges			
Asheville-Biltmore	571	3	190
Elizabeth City	934	3	311
Fayetteville	1,143	2	572
Pembroke	1,484	4	371
Wilmington	1,179	5	236
Winston-Salem	1,266	4	317
TOTAL	60,941	196	311

* Full-time equivalent.

added and the increased demands for services which will be required between now and 1975. A cursory examination of the recommended acquisitions[5], for example, will indicate that there is a pressing need for additional personnel.

While part-time assistance is of definite value, in a number of the colleges and smaller universities it appears that too much reliance is being placed on houly-paid student assistants, instad of developing a strong, permanent clerical professional staff.

Physical Facilities

The third essential of a strong college or university library is proper space and equipment. Regardless of how excellent the book collection may be or how efficiently the library is run, a poorly-planned, crowded, badly-heated or badly-ventilated building is a severe handicap to everyone who attempts to use it, reader and librarian alike.

Library space needs are of three kinds: accommodations for readers, book storage, and work rooms and offices for library staff. The major requirements, of course, are for reader and book space. There are generally accepted standards in these areas: seating should be provided for not less than 25 percent[6] of the current enrollment; 25-30 square feet of floor space should be allowd for each reader; stack or other shelving space should be equivalent to one square foot for every 10 volumes (allowing room for expansion to 15 volumes per square foot); and there should be an average 125 square feet of office or work space for each full-time member.[7]

The reader space which should be provided in a library will be affected by such factors as enrollment growth, the availability of efficient study space elsewhere on the campus including space in dormitories, the existence of departmental libraries, the number of commuting students, and the nature of the instructional program. As Table III indicates, searing facilities in only six of the libraries meet the minimum standard according to fall 1968 enrollment projections. Three of the six are in rapidly growing institutions, and percentages will probably fall below the standard within the next few years unless additions are made to their facilities in the meantime.

The library expansion planned for North Carolina State University will provide seating for about 2,400 students. On the basis of a 25 percent minimum, this is adequate for an enrollment of only 9,600 and will be inadequate in terms of minimum standards when the building is completed.

Similar deficiencics exist in several of the libraries in book space. Based on present holdings, the space available for books, and the maximum shelving capacity at 15 volumes per square foot, the libraries at the University of North Carolina at Greensboro, East Carolina, and North Carolina College are currently inadequate. Unless higher priority is placed on expanding library

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5. See Table IV.

6. Minimum set by Southern Association of Colleges and Schools. The American Library Association recommends that seating space be provided for 33 percent or the students, while some library building consultants recommend seating space for as much as 40 percent of the enrollment.

7. Adapted from the standards of the Association of Colleges and Research Libraries and the American Library Association. See "Standards for College Libraries," (July, 1959): 274-280.

Table III Available Reader Space and Deficiences in North Carolina Public College and University Libraries, Fall1968

Institution	Projected FTE* Enrollment Fall 1968	Reader Space** Needed*** Available	Per Cent Deficiency
University of N.C.			
N.C. State U.	9,178	2,294	61%
UNC-Chapel Hill	15,665	3,916	—
UNC-Charlotte	4,925	1,231	20
UNC-Greensboro	1,875	468	—
5-Year Institutions			
Appalachian	5,000	1,250	4
East Carolina	9,325	2,331	58
N.C. A and T	3,868	967	29
N.C. College	2,993	748	29
Western Carolina	4,100	1,025	57
4-Year Colleges			
Asheville-Biltmore	700	175	—
Elizabeth City	950	237	—
Fayetteville	1,200	300	12
Pembroke	1,500	375	22
Wilmington	1,140	285	—
Winston-Salem	1,250	312	—

* Full-time equivalent.

** In square feet.

*** Minimum suggested by the Southern Association of Colleges and Schools.

facilities, library space will become increasingly critical at a majority of the public colleges and universities in North Carolina.

The third type of library space required is staff offices and work rooms. Space for staff seems to be more generously provided than for books and readers in a majority of the North Carolina libraries studied; it should be added, however, that staff space is more difficult to add later than bookstacks and reading rooms. While the North Carolina College and Winston-Salem State College libraries are marginal in the work space for library staff, no institution is at present seriously deficient. The situation will be drastically different, however, at many of the institutions if they are adequately staffed to handle the job demanded of them between now and 1975.

In general the condition of college library buildings in North Carolina is good. Every public institution has had a new central library building or a major addition since 1950, and eight have buildings erected since 1960. In a number of buildings, however, inadequate room was provided for growing student bodies and faculties and for expanding book collections. More careful attention to enrollment projections may aid in forestalling such difficulties in the future. Every effort should be made to insure that adequate funds are available to construct buildings of sufficient size.

Use of Libraries

Statistics on the use of libraries are generally suspect because they usually do not fully report all of the types of library usage. The use of open-shelf collections, for example, is largely unrecorded, and the use of photocopying services in lieu of the borrowing of books further distorts the statistics. Nevertheless, recorded circulation is indicative of the extent to which the resources of a library are being utilized. Book circulation in college and university libraries is of two types, home and reserve. If home circulation exceeds reserve circulation, it is generally indicative of independent study and reading by students beyond rigid class requirements.

All of the 15 libraries in this study show emphasis on home circulation as contrasted with reserve book reading during I 967-68. On a per capita basis, however, circulation in nearly all the libraries appears low. There are no generally accepted norms for student use, because such variable factors are involved as the hours libraries are open, whether the collections are on open or closed shelves, the size and character

of the collections, the teaching methods prevailing, the rate of library growth, and the size and organization of the library staff. A minimum annual per capita circulation of 50 books, however, is considered a rough indication of a library's effectiveness. Some college and university libraries, where library use is emphasized, have considerably higher averages. In six of the libraries average circulation was less than 30 books per student, and in only six was the average above 40. The University of North Carolina at Chapel Hill and North Carolina College at Durham were the only institutions where the standard of 50 was exceeded.

Library use may be encouraged and increased in a number of ways, such as through the maintenance of close liaison between the faculty and library staff, effective instruction in the use of the library with particular attention to the orientation of new students, a constant supply and publication of information on new acquisitions, extending hours during which the library is open, longer lending periods, open shelving of books, and expert staff assistance to students and faculty. Student membership on library committees may stimulate communication of library news and services, as does the regular dis semination of library news through newsletters, the campus newspaper, bulletin boards, and student organizations.

Interlibrary loans are a useful index of the strength of a library and of the extent of faculty and graduate student research. A record of items borrowed through interlibrary loans is often a valuable guide in determining the areas of a library most in need of strengthening. The statistics on the number of items borrowed and loaned in 1967-68 reveal that the University of North Carolina at Chapel Hill and North Carolina State are, not surprisingly, the principal resource libraries in the public

system. The overall use of interlibrary loans as a supplementary resource demonstrates the interdependence of educational and research libraries throughout the country. It is important that North Carolina's research libraries continue to build for strength in order to provide maximum support for students, scholars, scientists, and research workers over the state.

Financial Support

Determination of adequate library support requires an analysis of the local situation but there are certain general criteria which can be useful in determining the adequacy of support, as well as in indicating the library's status in the institution; the proportion of the institution's total budget which goes to the library; library expenditures as conmpared with expenditures by institutions of comparable size and type; and the size o the library holdings, its staff and facilities, as compared with the size of the student body, the number of faculty members, and the type of academic programs offered. A significant question in determining adequacy of support is whether the library is old and well established or new and struggling to build up basic materials.

The Association of College and Research Libraries states that good library service "will normally require a minimum of 5 percent of the total educational and general budget." The percentage should be higher "if the library's holdings are seriously deficient, if there is rapid expansion in student population or course offerings," or if the institution has a wide range of graduate programs. Analysis of expenditures in 1967-68 reveals that library budgets at North Carolina State, the University of North Carolina at Chapel Hill, Elizabeth City, and North Carolina Agricultural and Technical were below the recommended

standard of 5 percent. The relatively high percentages at some of the newer institutions, such as the University of North Carolina at Charlotte and Asheville-Biltmore, are due to a concentration on rapid library acquisitions during the initial period of development as senior institutions.

One of the standards of the Association of College and Research Libraries states that "while the allocation of library funds for specific purposes will depend on the needs of the individual institution, experince shows that a good college library usually spends twice as much (or more) for salaries as it does for books." The only libraries which meet or come close to meeting this standard are those at the University of North Carolina at Greensboro, Appalachian, and North Carolina College at Durham. In general, a low ratio of salary to book expenditures is an indication either of understaffing or of low salary standards.

Another frequently applied measure of the adequacy of financial support is the library expenditure per student. The expenditure for library support (books, staff, etc.) per full-time equivalent student for 1967-68 ranged from a low of $62 at Western Carolina and Winston-Salem State to highs of $201 at the University of North Carolina at Charlotte and $267 at Asheville-Biltmore. While there are no exact standards for per capita support, an annual expenditure of less than $100 per student is generally held to be inadequate. Eleven North Carolina public institutions fall below this mark. A minimum of $100 per capita for continuing support should be provided annually.

Library financing can hardly be considered without reference to inflation. Book and periodical prices over the past 10 years shown an average annual increase of nearly 10 percent. In a number of important types of

publications the range is even higher. The price index for periodicals in chemistry and physics, for example, went from 100 to 222.6 in the decade, while that for periodicals in mathematics, botany, geology, and general science went from 100 to 219.3. Specific illustrations of the increasing cost of periodicals are *Chemical Abstracts*, which jumped from $80 annually in 1958 to $1,050 annually in 1968 and which is to be further increased to $1,550 in 1969, and *Biological Abstracts*, which went from $80 in 1958 to $640 in 1968. It must be assumed that further price increases will occur.

Because of rising prices and the increased volume of publishing, it is conservative to estimate that an increase from 15 to 20 percent annually in book and periodical funds is neccssary to enable a good academic library to maintam a given level of acquisitions. Comparable price increases, of course, are occurring in other elements of library budgets — salaries, wages, bookbinding, and equipment — and appropriations for college and university libraries must be augmented to take these increases into account.

The potential uses of the computer and of other automated devices, such as television shelf scanners, which are already developed for libraries but which have not yet been adopted in North Carolina, are also items to be considered in future financial evaluations.

Impact of Technology

Considerable impatience has been expressed by scholars and scientists about the seeming reluctance of professional librarians to accept computer-centered literature searching systems as a means of bringing the "information explosion" under control. The traditional library system, viewed by one unfamiliar with the complexities of the problem, appears antiquated and cumbersome. The capability of the computer for storing and retrieving information has led many to believe that automated equipment for libraries is already operational rather than merely a future possibility.

A more realistic appraisal comes from the Educational Facilities Laboratories,[8] established by the Ford Foundation, which concludes that for the next 20 years or more, the great bulk of publication will be in conventional print form, with a gradual increase in the production of microform texts. Retrospective conversion of texts to machine readable form is not expected to any great degree for a very long time in the future. Therefore, the bulk of a scholar's negotiations in a library will be with books even 30 years from now.

Immediately feasible, however, is the application of certain types of automation and mechanization to some technical procedures pertaining to acquisitions, bookkeeping, serial records, and circulation. Experimentation with such procedures now in progress at the University of North Carolina at Chapel Hill and elsewhere in North Carolina should be continued, encouraged and their experience shared with educators and librarians in the state, facilitating their potential use by other libraries. Because of the expense involved, however, and the lack of practical need in the smaller institutions, the full use of these procedures will probably be confined for the next few years to the largest universities.

Cooperation Among Libraries

It is obvious from the foregoing that the State of North Carolina faces problems of great dimension in making the libraries of its public senior institutions of higher education adequate to the needs. Unless we are to settle for mediocrity, the financial implications are staggering. It is not necessary, however, that each library be assisted independently of the others. The doctrine and practice of self-sufficiency can be supplanted by extensive interinstitutional development and sharing of library resources. The advantages of combining resources are obvious, particularly now that rapid methods of reproduction and transmittal of materials and information are available.

Cooperation is not, of course, a panacea for all library or educational problems. It is not a substitute for adequate state support. A reasonable degree of duplication must exist among libraries. Every library necessarily procures for its own basic collections much-used reference works, general interest periodicals, books needed for undergraduate courses, and other books in frequent demand, without regard to their availability elsewhere. The most favorable opportunities for joint effort among libraries are in specialized subjects and materials for which there is little demand.

The centralization of highly-specialized collections, rather than their dispersal over the state, is a promising possibility. A statewide depository collection, separate from any existing library but working with and shared by all, might well be established close to thc state's major library resources. In addition, bibliographic services could be provided in the form of a revision and expansion of the North Carolina Union Catalog, through telewriter connections among the libraries, and through rapid delivery service from the central facility and from campus to campus. Under this plan the entire library research facilities of the state

8. The Impact of Technology on the Library Building, 1967.

would eventually he united to serve all students, scholars, and general researchers.

In February 1969 a proposal to the Council on Library Resources for a grant to support a feasibility study of a state research depository library in Norch Carolina was submitted by a joint sponsoring committee composed of representatives of the North Carolina State Library, North Carolina Library Association, North Carolina Board of Education, and the North Carolina Board of Higher Education.

In view of the creation of regional universities and a fourth campus of the University of North Carolina, the rapid growth of undergraduate enrollment, the projected doubling of graduate enrollment during the next eight years, the inadequacy of the public college and university library resources, and the resulting need for additional financial support, the Board of Higher Education recommends:

1) that as immediate objectives the annual book, periodical, and binding budgets be increased[9] to: $1,200,000 at UNC-Chapel Hill, $1,090,000 at NCSU, $640,000 at UNC-Greensboro and UNC-Charlotte, $490,000 at East Carolina, $540,000 at Western Carolina, $450,000 at Appalachian, $360,000 at North Carolina College, and $200,000 at NCA&T. At the four-year colleges the annual book, periodical, and binding budgets should be increased in amounts ranging from $120,000 to $150,000 depending upon the needs of the particular institution (see Table IV). This recommendation should have top priority in meeting library needs;

2) that a ratio between student enrollment and overall library support be established and used to guide both the General Assembly and the institutions in planning their library budgets. A per capita amount of not less than $100 is recommended. Financial support to each public college and university library should not be allowed to fall below that level, or 5 percent of the total general educaional budget of the institution, whichever sum is greater;

3) that further analysis of book and salary expense ratios in individual library budgets be made to determine whether one or the other category is disproportionately high or low, and remedial action taken where necessary;

4) that in£lationary costs be regularly taken into account in the preparation of library budgets;

5) that the stature of the library of the University of North Carolina at Chapel Hill be maintained and improved and that support sufficient to increase its holdings to a minimum of 2,350,000 volumes by 1975 be provided;

6) that at the other major public institution offering a broad range of doctoral programs, North Carolina State University, immediate steps be taken to strengthen the library in all aspects, and to bring its holdings up to a minimum of 1,150,000 volumes by 1975;

7) that the libraries of the other two campuses of the University of Norch Carolina, at Greensboro and Charlotte, attain holdings of at least 800,000 volumes and 500,000 volumes respectively by 1975;

8) that the four regional universities and North Carolina College, institutions offering programs through the master's degree, develop library collecttons in excess of 400,000 volumes as soon as possible, with larger collections as the demands of enrollment and the complexity of acadcmic offerings indicate (see Table IV for details by institution);

9) that the state's senior four-year college libraries be supported to the end that each four-year institution plan to subscribe to no fewer than 1,000 current, well-selected periodicals annually by 1975 (see Table IV);

10) that, if sufficient support is provided in accordance with Recommendation 1 above, each four-year institution plan to subscribe to no fewer than l,000 current well-selected periodicals annually by 1975, and that institutions offering graduate work adhere to the Clapp-Jordan formula for periodical subscriptions;

11) that institutions not presently designated as depositories for Federal Government publications make application to be added to the official list;

12) that each public senior institution, recognizing that numbers or books alone do not make an adequate library, constantly evaluate its library holdings; and that, in building a collection suited to its academic programs, the library staff work cooperatively with faculty members, using standard lists prepared by specialists, to improve the quality of its holdings;

13) that the ratio of clerical to profcssional staff be increased in a number of libraries in order to free librarians for professional duties; the recommended ratio is two clerical staff members for each professional librarian;

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9. For the fiscal year ending June 30, 1968, the budgets of the public senior institutions for these purposes were as follows: UNC-CH, $810,000; NSCU, $318,000; UNC-G, $128,000; UNC-C, $185,000; East Carolina, $336,000; Western Carolina, $91,000; Appalachian, $139,000; North Carollna College, $75,000; NCA&T, $94,000; Ashevllle-Biltmore, $73,000; Elizabeth City, $27,000; Fayetteville, $47,000; Pembroke, $50,000; Wilmington, $59,000; and Winston-Salem, $48,000.

14) that the ratio of professional librarains to enrollment be raised to one professional librarian for every 300 full-time equivalent students;

15) that library seating be brought up to a minimum of 25 percent of enrollment in all public colleges and universities as soon as possible;

16) that steps be taken immediately in the libraries on some campuses, and in the near future in others, to relieve shortages in book storage space;

17) that the administration, faculty, and library staff of each public senior institution cooperatively undertakc a study to determine the extent to which library resources are being utilized and to seek additional ways of stimulating their use;

18) that while building strong basic library collections appropriate to its institutional purpose, each public college and university explore the possibility of closer cooperation with other libraries; and

19) that a study be initiated as soon as possible to determine the feasibility of a central research library facility to serve the entire state. Its purpose would be the centralized and economical storage of little-used materials for the benefit of students, scholars, and general researchers and the circulation of materials on demand by means of rapid delivery service from the central facility. The study should involve all interested groups, including librarians, college and university administrators, faculty members, and representatives of both public and private institutions and of such professiona organizations as the North Carlina Library Association.

North Carolina Books

Compiled by Al Jones
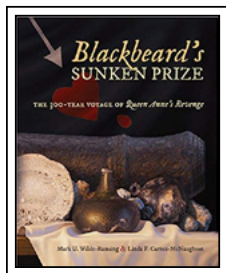
Blackbeard's Sunken Prize: The 300-Year Voyage of Queen Anne's Revenge

Wilde-Ramsing, Mark U. and
Linda F. Carnes-McNaughton
Chapel Hill: University of North Carolina Press,
2018. 224 pp. $28.00. Paperback ISBN: 978-1-
4696-4052-5. E-book ISBN: 978-1-4696-4053-2.

Blackbeard. Edward Thache (Teach). Three hundred years after the notorious pirate's death in a bloody battle on Ocracoke Island in November 1718, the name still evokes a frisson of fear. Now imagine the terror felt by eighteenth-century Atlantic seafarers and coastal dwellers as Blackbeard seized ships and plundered coastal towns in his quest for treasure and pirate riches.

Blackbeard's Sunken Prize: The 300-Year Voyage of Queen Anne's Revenge recounts the discovery of Blackbeard's flagship near Beaufort, North Carolina, and uses recovered artifacts to identify the ship and place it in historical context. The authors, Wilde-Ramsing and Carnes-McNaughton, are archaeologists who have been intimately involved in the *Queen Anne's Revenge* (QAR) Shipwreck Project and write from first-hand experience of the project's activities and discoveries over the past twenty years. With sixty-percent of the site excavated and hundreds of thousands of items recovered, including 29 iron cannons, 250,000 pieces of lead

shot, and other items left behind during the ship's abandonment, the authors' recounting of the archaeological expedition, recovery of concretions, and conservation of recovered artifacts makes for a fascinating look at life on an eighteenth-century pirate ship.

The book consists of eight chapters interspersed with vignettes, each of which explains a project activity or recovered item in more detail. The first chapter uses historical accounts to examine pirate lore and known facts about Blackbeard's life, while the second chapter uses historical records to show how the French privateer turned slave ship, *La Concorde de Nantes*, became Blackbeard's flagship, *Queen Anne's Revenge*, in 1717. Less than six months later in early June 1718, the QAR ran aground in Beaufort Inlet and its pirate crew abandoned ship. The next two chapters discuss the evolution of the North Carolina coastline over the last three centuries, the discovery of the shipwreck's remains on November 21, 1996, and the recovery of sample artifacts from the wreckage that identified the site as the resting place of the QAR. Conservation of the recovered artifacts is the focus of chapter five; the longest chapter (chapter six) is devoted to classifying, cataloging, and discussing groups of artifacts from the wreckage. The final two chapters delineate how the archaeological record confirmed the identity of the QAR and discuss how the *Queen Anne's Revenge* Shipwreck Project has captured the imagination of today's public. Beautiful, full-color art reproductions, illustrations, and photographs appear on nearly every page and add wonderful detail to the

book's rich content and conversational style. Detailed endnotes support the text and lead the reader to relevant primary and secondary sources while the index is well-organized and complete.

This book is a superb addition to North Carolina libraries of all types, especially public and academic libraries. While the subject matter is useful for undergraduates in many disciplines (history, archaeology, and American Studies, for example), the text is accessible to general readers and the subject matter would definitely appeal to armchair historians. Updates on the QAR Shipwreck Project are available at www.qaronline.org. Blackbeard's notoriety continues to fascinate three hundred years later!

Teresa LePors
Elon University
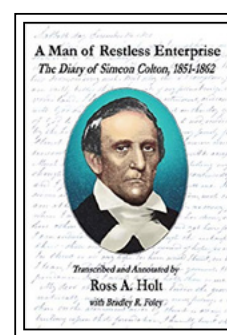
A Man of Restless Enterprise: The Diary of Simeon Colton, 1851- 1862

Holt, Ross A., ed. and Foley, Bradley R.
Self-Published, 2018. 277 pp.
$15.00. ISBN 978-1-7268-3293-9.

Simeon Colton (1785-1868) began his career in the Boston area as a minister and educator. After a

transition to warmer climes in North Carolina, Colton's work in religion and education had a lasting influence on 19th c. North Carolina. In his new book on Colton, Ross Holt, Asheboro native, Director of the Randolph County Public Library and member of the Randolph County Historic Landmark Preservation Commission, has given us a snapshot into that transition as well as a unique look at mid 19th century North Carolina history. The Man of Restless Enterprise as Holt calls Colton certainly lives up to his name. Over the course of the book, a selection of diary entries from 1851-1862, we see Colton speak on a number of topics from his observations of his courtship of Catherine Fuller, "I found her apparently a pleasant women of ardent piety" (p.68), to more pointed observations on his new neighbors in Asheboro, "Asheboro is divided into family feuds and a great deal of bitterness between them" (p.136). he also reports on the activities of friends such as Charles Merriam, of Merriam-Webster fame, and Elisha Mitchell, primarily known as the first to measure the mountain soon to be named Mt. Mitchell. These observations are bookended with warm memories of his children as well as a melancholic view on where he sees himself at that point in time.

Writing as a widower and minister, Colton is very aware that time is slipping away from him. This very human attitude toward mortality brings Colton's words into an entirely different light and Holt has done a masterful job of selecting entries that paint a full picture of Colton's time in North Carolina. His last entry in fact highlights the duality of his physical situation. His observation on his failing health, "Infant children and very old men are inclined to sleep much of their time (p.188) is followed by a pointed analysis that certain authors "embrace a great variety stile [sic] from

"not clear in expression" to "one draws so much from the depths of human depravity" (ibid).

This book would be a great addition to any North Carolina collection in the state. The narrative contained within and expertly edited by Holt and Bradley Foley keep the reader engaged. Public and academic libraries would benefit from having this title in their collection. Even for those outside of Colton's geographical reach would find his words both entertaining and comforting.

Lucas Berrini
East Carolina University
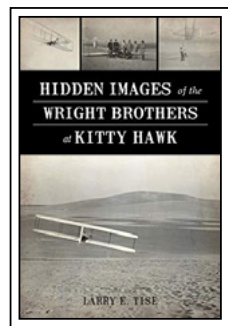
Hidden Images of the Wright Brothers at Kitty Hawk
Larry E. Tise
Charleston, SC: History Press, 2019.
164 pp. $21.99. ISBN 978-1-4671-4243-4.

Have you ever wondered what it would be like to live in a primitive wooden shed on the windy sand dunes of Kitty Hawk in 1903 while trying to solve one of the great engineering challenges of modern times--powered human flight? What would your kitchen and sleeping cots look like, what tools would you use to repair your aircraft, and what people would you meet living in such an isolated location? Historian, author, and East Carolina University professor Dr. Larry E. Tise helps put you there with Wilbur and Orville at Kill Devil Hills in North Carolina through a close analysis of the photographs taken by the Wrights in this new edition of *Hidden Images of the Wright Brothers at Kitty*

Hawk.

The brothers traveled to Kitty Hawk to perform glider and powered flight tests in 1900, 1901, 1902, 1903, 1908, and 1911, with members of the Wright party photographing their activities. Drawing on his familiarity with the Wrights' North Carolina correspondence and knowledge of Outer Banks geography and history, Tise selected images from their photographic output and has identified specific people, buildings, locations, equipment, and flight tests. The book has a chapter for each year spent in North Carolina, with a short essay that places the visit within the broader context of their research, followed by the selected images with captions.

As the photographs are from known collections in the Library of Congress and Wright State University, the "hidden images" of the title refers to Tise's enlargements of small details in the photographs, sometimes off to the side or in the distant background. With these close-ups, Tise is able to identify visitors to their encampment, name members of the local U.S. Coast Guard Life Saving Unit who helped with flight tests, highlight equipment like the magneto used to start the engine, and show clothing details like the ornate suspenders worn by the men.

For the new edition, Tise includes an epilogue with additional information that has come to light since the original publication in 2005, including authenticating a handmade table documented by the photographs. In addition to research in other areas, Tise has written two more Wrights-related books: *Conquering the Sky: The Secret Flights of the Wright Brothers at Kitty Hawk* (2009), which focuses on the Wrights in North Carolina in 1908, and, *Circa 1903: North Carolina's Outer Banks at the Dawn of Flight* (2019), which explores

in more detail the society, businesses, and transportation of the area.

Given the book's focus on the Wrights' activities in Kitty Hawk as documented in their photographs, it may not be the first choice as a general history of flight or biography of the brothers, but it will be very useful for those interested in North Carolina history, the Outer Banks, the Wright Brothers, or aviation, and will be a helpful guide for those doing research with the Wright Photographs in the Library of Congress or at Wright State University.

Chip Larkin
North Carolina Wesleyan College
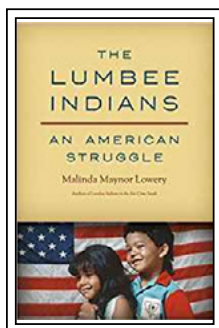
The Lumbee Indians: An American Struggle

What do the song, "Proud To Be a Lumbee" by Willie French Lowery, the Battle of Hayes Pond (1958), Lumbee Homecoming, the Lumbee Regional Development Association (LRDA), Julian Pierce, federal recognition process (FAP), and the outdoor drama, *Strike at the Wind!*, have in common? Throughout the pages of the book, *The Lumbee Indians: An American Struggle*, Malinda Maynor Lowery introduces readers to some of these significant events and people who have shaped the history of the Lumbee Indian tribe in North Carolina. From their

earliest days of existence, Lumbee Indians have endeavored to preserve their distinct culture while striving to achieve the same advantages enjoyed by their white neighbors. Unlike the Cherokee Indians, the Lumbee Indians only have state recognition, but federal recognition has always been an elusive goal. To this day, Lumbee Indians try to maintain kinship bonds in order to keep their culture and history alive for both present and future generations. The term, "who's your people" has special meaning for Lumbee Indians who wish to trace their family lineage and preserve their distinctive heritage.

Lowery divides her book into seven chapters, and includes an "Interlude" section at the end of each.. Essentially, the interludes contain the author's personal recollections or experiences during her lifetime which relate to the chapter themes. Additionally, the book has several maps, and an index. Perhaps the greatest feature of the book is the photograph on the book jacket showing Lumbee children against the backdrop of the American flag. By using this technique, the author depicts the ongoing struggles of the Lumbee Indians to enjoy total freedom in the United States.

Malinda Maynor Lowery is Associate Professor of History at UNC Chapel Hill and is Director of the Center for the Study of the American South. Besides *The Lumbee Indians: An American Struggle* (2018), the author also wrote *Lumbee Indians in the Jim Crow South: Race, Identity, and the Making of a Nation* (2010).

This book is intended to help readers gain a glimpse into the myriad number of challenges which Lumbee Indians have had to face over the years. Moving forward, the Lumbee Indians will continue to advocate for federal recognition so that they can gain access to complete health care, educational reform, and benefits of economic progress. Because of its specific scope and subject matter,

The Lumbee Indians: An American Struggle would be suitable for inclusion in any public or academic library with a focus on Lumbee Indian history.

David W. Young
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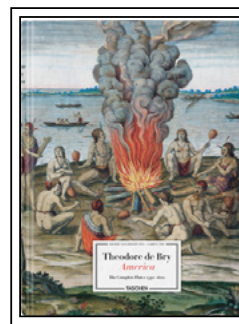
Theodore de Bry - America: The Complete Plates 1590-1602

Fans of de Bry's *America* series of the *Grand Voyages* will enjoy this outstanding compilation by Michael Van Grossen and Larry Tise. Printed in a format (15 ½ x 11 inches) that mirrors the size of the 16th century originals, the bulk of the plates in his volume are in full color on paper the intended to convey the look and texture of the original. Perhaps among the best known coffee table books the twenty-five volume *voyages* series is divided into two groups: a thirteen volume *America* series that covers the New World, and the *India Orientalis* series of twelve volumes that covers Asia and Africa. Over 600 copper plate engravings illustrate in Euro-centric view the early contacts of the Old World with the New.

Volume one of the *America* series deals with the experiences of the English colonists on Roanoke Island as related in the Thomas Hariot account. This first volume was issued in four languages: English, French, German and Latin. De Bry hoped to

include several language editions of later volumes but cost became a factor and most of the others are found only in Latin. The illustrations in volume one are based on the watercolor drawings of John White currently in the British Museum. The drawings are shown in exciting two pages folio spreads. Volume two is based on Rene de Laudonnoire's account of the French expedition into Florida. Other volumes in the *America* series cover Central and South America and the Caribbean. The images shown in the book are from the John Hay Library and John Carter Brown libraries and the Staats-Und StadtBibliothek Augusburg.

Michael Van Grossen has written an outstanding essay in the book covering the complicated printing and engraving of the *Grand Voyages*. He describes in detail how the watercolors and drawings were transformed into the engraved plates. He chronicles the artistic and logistic problems associated with the printing firm of de Bry and sons. Van Grossen tells and interesting tale and incorporates the role the book producers played in the times of the era. Larry Tise, in a ground breaking essay on the colorists of the *America* volumes (no colored volumes exits after Volume VI – Peru), relates the complicated story of why various editions are painted differently. Hand colored works cause a special problem in that one can never be sure exactly when the item in hand was colored, however many copies seem to be colored by 16th and 17th century colorists. The publisher did not retain colorists, but rather copies were colored by the individual purchasers. This results in color variations by language edition. For example, German language copies are colored in dark greens, reds, and blacks, while French copies are usually found colored with lighter more watered down colors. Tise feels that these differences are results of the way native Americans were perceived by various European cultures. Tise speculates that in the future new methods will become available to aid in determining if a copy was colored in the 16th or the 21st century. North Carolina libraries will want to add this ground-breaking analysis of our earliest Americans to their collections.

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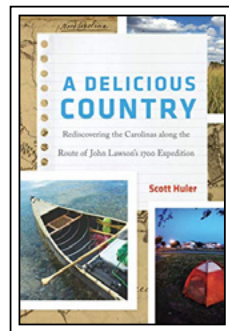
A Delicious Country: Rediscovering the Carolinas along the Route of John Lawson's 1700 Expedition
Huler, Scott
Chapel Hill: University of North Carolina Press, 2019. 264 pp., $28.00 978-1-4696-4828-6.

John Lawson (1674-1711) helped found North Carolina's first two towns, Bath and New Bern. During a backcountry journey in 1700-1701, he wrote A New Voyage to Carolina, containing vivid descriptions of plants, wildlife, people, and the landscape. Printed in several languages, the volume is helpful to today's scientists and historians. Despite numerous achievements, Lawson is primarily remembered in North Carolina for his gruesome end as one of the Tuscarora War's first casualties.

Scott Huler discovered Lawson while doing research for his book *On the Grid: A Plot of Land, an Average Neighborhood, and the Systems that Make Our World Work*, an investigation into modern-day infrastructure. The more he learned about Lawson, the more surprised Huler became by Lawson's obscurity. In 2014, Huler retraced Lawson's path, canoeing and walking from Charleston, South Carolina, to Bath. A Delicious Country chronicles both men's journeys.

Both Lawson and Huler are keen observers of landscape, flora and fauna, and people. Lawson's descriptions of Indian groups are still admired for their detail and sympathy. He realized that European settlers had treated them poorly, and that native peoples understood their risk of extinction. Huler draws ironic comparisons between the native communities visited by Lawson and today's settlements: "Not unlike the native peoples Lawson met, who surely feared that the new arrivals would overwhelm them, current locals fear what the rising tide of retirees, Yankees, and foolish young people might do to the coast they loved." Much as the native communities suffered, so too have some European-established settlements. Abandoned plants, factories and houses show towns and people left behind.

The journeys of both men share similarities. Both Huler and Lawson benefitted from guides familiar with the terrain. Both took advantage of the occasional offer of a wigwam or shelter as a respite from sleeping outside. Descendants of South Carolina Huguenots who hosted Lawson entertained Huler. A humorous writing style characterizes both books at times.

Though Huler delights that the marsh grass Lawson traveled through on South Carolina's coast is still there, much has changed over 300 years. For example, Lawson wrote about the Carolina Parakeet and the Passenger Pigeon, both now extinct. The conveniences and tools Huler enjoys—Pop tarts, fountain drinks, car rides, and a cell phone—were not available in 1700, but Huler argues that Lawson, too, would have used the best tools at his disposal, including knowledgeable Indian guides. However,

Huler's journey of roughly 400 miles was not easy. He recounts paddling a canoe against the current and walking on scorching paved roads meant for cars, not pedestrians.

Huler, a resident of Raleigh, is a gifted storyteller with an intense curiosity about many subjects. Currently a senior writer at *Duke Magazine*, he has written six other books of nonfiction, covering topics from NASCAR racing culture to the *Odyssey*.

This is an engaging book that is of value to readers interested in John Lawson's expedition, early eighteenth-century natural history and Carolina history, and the landscape and communities along Lawson's trail. The book includes photographs, but lacks a detailed map of Huler's stops. Fortunately, Huler's blog, The Lawson Trek, provides an interactive map. This book is appropriate for high school libraries and public and academic collections.

Linda Jacobson
University of North Carolina at
Chapel Hill
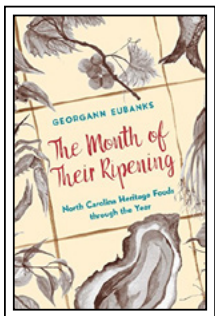
The Month of Their Ripening:
North Carolina Heritage Foods
through the Year
Eubanks, Georgann
Chapel Hill, NC: University of North Carolina Press, 2018. 262 pp. $28.00. ISBN 978-1-4696-4082-2.

Eubanks shares a colorful perspective on native North Carolina foods. She identifies one regionally known fruit, vegetable, fish or meat according to the month it is most available. She delves into a study and description that leaves readers with more than just a taste for the food. Eubanks makes readers want to visit the locales described, meet the people, and try the foods first-hand themselves. Indeed, readers will feel they already know some of the individuals Eubanks interacted with and described in her quest to gain more of the "inside" information about each food.

The chapter on figs, with intimate details of Ocracoke shared by local fig-grower and historian Chester Lynn, entices food lovers to plan to travel to Ocracoke Island during the month of August to experience the mystique and the fig delights of the tiny barrier island Ocracoke.

Yona Wade's description of the delights of April's ramps in the mountains of North Carolina makes one long to go to Cherokee for what is considered a spring tonic, as well as a food that is now becoming a coveted specialty in upscale restaurants.

Part of the value of Eubanks work with this book is not only in drawing attention to the foods, but more so in bringing the beauty and the uniqueness of North Carolina to the attention of readers. She shares a delightful blend of its history, humanity, and culture. Another less obvious benefit to be gained from this work is that by promoting these mostly regional selections and raising public awareness of them, some of these foods may be saved and enjoyed by others for years to come.

Eubanks paints a picture of each food and locale from the perspective of experiencing life with true appreciation. She evokes images from the life and times as they have always been in parts of North Carolina.

The Month of Their Ripening is a book to be read at leisure with time for contemplation, thought, and possibly for planning your next vacation! Readers will discover historical fact, folklore, family recipes, and North Carolina geography, as well as tips to grow each fruit or vegetable shared. This book is recommended for anyone interested in native foods from North Carolina and the culture and history of its regions. Along with individuals, public and academic libraries that collect North Carolina history and culture should definitely have *The Month of Their Ripening* in their collections.

Georgann Eubanks's background as a writer and popular speaker served her well in the composing of this work. The conversations and friendly exchanges and interactions with the people who actually grow, catch or cook these foods make this a rich and charming book.

Kaye Dotson
East Carolina University

Occasionally we get reviews of the same book from two different reviewers. In this instance, we hope our readers will enjoy the insights of two excellent reviewers.
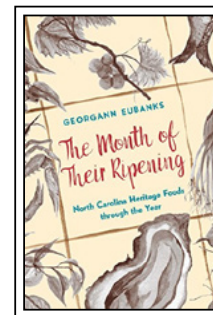
The Month of Their Ripening:
North Carolina Heritage Foods
through the Year
Eubanks, Georgann
Chapel Hill, NC: University of North Carolina Press, 2018. 262 pp. $28.00. ISBN 978-1-4696-4082-2.

Food is always a good topic of conversation, and that informal approach is taken by Eubanks, author of three *Literary Trails* regional guides of

North Carolina, who invites the reader to cross the state on a journey to meet individuals who raise heritage food products. She uncovers the challenges and rewards of the lifestyles they have chosen.

Eubanks structures the book to follow the year month-by-month, highlighting foods available during that time of the year. Her selections range from the popular and ubiquitous apple to the delicate persimmon. The great pleasure in reading the book comes from Eubanks' storytelling. She shares food history, agriculture and aquaculture methods, and life experiences of farmers, foragers, and others.

The year starts with snow! It's a nostalgic look at snow days and whipping up snow cream, a novelty that children consider a treat. Reminiscences by those she interviews of which ingredients to include with the snow and sugar – cream versus milk versus evaporated milk, for instance – bring back the fun and excitement of families and friends preparing this dish. Food memories are a theme throughout the book as people consider what the produce or other agricultural product has meant in their own lives and in their communities.

The reader has the sense of joining Eubanks on her trek to counties across the state. She incorporates the history of the foods and their importance to the local economies and to the families living in the towns and area countryside. The language is lyrical as in her description of persimmons as "orbs suspended high like tiny burnished lanterns, dusky red as if a cloud of smoke had come by and clung to them in patches."

The chapter on goat's milk provides an in-depth account of how poet Carl Sandburg's wife and daughters established a goat herd at their farm, Connemara, in Flat Rock, and weaves in discussions of various goat breeds and products such as cheese, ice cream, and soap. Typically collected from locations that are not disclosed by foragers, ramps have a long history among the Cherokee, who have special harvesting techniques that Eubanks describes. She discusses a cantaloupe taste test and shares her experience on Ocracoke Island driving around neighborhoods in an electronic golf cart with a friend looking for fig trees. Foods from other months include shad, soft-shell crabs, serviceberries, and scuppernongs.

While the descriptions can be beautiful, they also reflect the very real economic hardships and struggles that farmers face. Eubanks is particularly skillful in describing the complexities of oyster farming along the coast, the difficulties in starting a business, and the competition faced from regional and global markets. The weather and natural disasters are factors in the success of crops, and Eubanks takes care in describing the effects of wildfires in the mountains as well as hurricanes in the eastern part of the state.

Food producers are the focus, but Eubanks also interviews scientists, anthropologists, researchers, and experts affiliated with the North Carolina Cooperative Extension and state agencies, such as the Division of Marine Fisheries. She visits food festivals, restaurants, country stores, farmers markets and fish markets, and she shares histories and cooking techniques described by the people she consults.

Readers interested in food, agriculture, fishing, history, and the people of North Carolina will enjoy this book.

Christine Fischer
University of North Carolina at Greensboro
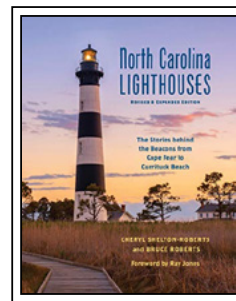
North Carolina Lighthouses: The Stories Behind the Beacons from Cape Fear to Currituck Beach
Shelton-Roberts, Cheryl and Bruce Roberts
Rev. and expanded ed. Chapel Hill: University of North Carolina Press, 2019. 264 pp. $22.00 Paperback ISBN: 978-1-4696-4148-5. E-book ISBN: 978-1-4696-4149-2.

North Carolina's 300-mile coastline attracts thousands of vacationers annually to enjoy the beaches, local seafood, and recreational activities such as surfing, sailing, and fishing. Some of the most popular tourist attractions in the eastern part of the state are the nine distinctive lighthouses that dot the coastline from Wilmington to Ocracoke. These beacons, built to alert sailors to the dangerous off-shore shoals and to guide them to safe inlets, are now destination points for the summer influx of tourists.

Authors Cheryl Shelton-Roberts and Bruce Roberts have written several books about North Carolina's lighthouses including *Lighthouse Families* and *North Carolina Lighthouses: Stories of History and Hope*. Their latest book is a lavishly illustrated, meticulously researched historical overview of North Carolina lighthouses which is sure to please history buffs and armchair explorers alike. The book focuses broadly on the areas of Cape Fear, Cape Lookout, and Cape Hatteras and their dangerous shoals as the authors guide the reader chronologically and geographically from south to north along the aptly named Graveyard of the Atlantic.

The Founding Fathers recognized the importance of shipping to the

economy of the fledgling colonies and authorized North Carolina's first federally funded lighthouse in 1794 near the mouth of the Cape Fear River. Over the next one hundred years a series of lighthouses was built to light the North Carolina coastline and guide seafarers to safer waters and inlets. Using archival records, the authors describe the architectural and technical knowledge needed to build, run, and maintain these lighthouses and their Fresnel lens. Architectural drawings, paintings, and photographs provide nuanced detail to the descriptive text and help the reader visualize each lighthouse and understand unfamiliar technical aspects. Information sidebars provide specifications for each lighthouse, including height, elevation, and the lighthouse's flash characteristics, identify public accessibility, and list websites and mailing addresses for additional information.

The book is strengthened by the inclusion of a chapter on the importance of the lighthouses during the Civil War as Confederate blockade runners tried to slip goods into and out of the state's ports and rivers. Descriptions of everyday life for the lighthouse keepers and their families allow the reader to visualize life in an isolated location and they reinforce the importance of the keeper in maintaining the lighthouse daily. The book concludes by describing other types of light vessels used to light and protect the coastline through the years, the 1999 moving of the Cape Hatteras lighthouse 2,900 feet further inland to protect it from coastal erosion, and measures undertaken to restore and preserve the surviving lighthouses for another century.

North Carolina Lighthouses would be a welcome addition to all public and academic libraries in North Carolina and beyond. The text is accessible to both high school and undergraduate students, while armchair historians will enjoy the technical details that are included. It also makes a wonderful gift for North Carolinians living on the coast or lighthouse enthusiasts planning to visit the state's lighthouses.

Teresa LePors
Elon University Library
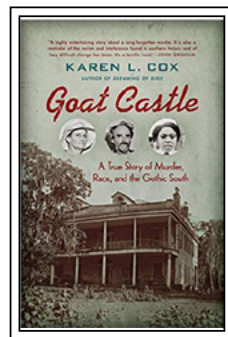
Goat Castle: A True Story of Murder, Race, and the Gothic South

Cox, Karen L.
Chapel Hill, NC: University of North Carolina Press, 2017. ISBN: 9781469635033. 227 pages with illustrations, maps, and portraits. $26.00

Karen Cox, Professor of History at the University of North Carolina-Charlotte, uses this riveting tale as a vehicle to look at Southern justice under Jim Crow, and as a springboard to consider racial justice in American today.

In August of 1932, the daughter of a former ambassador, one-time host to the president, and heir to southern aristocracy was murdered in her home in the Jim Crow South town of Natchez, Mississippi. The burglar came for her money, and left with only blood on his hands. The persons responsible were from plantation-owner dynasties. They say that truth is stranger than fiction, and this true story reads like an Edgar Allen Poe Tale.

Professor Cox has written an unblinking look at the people and events surrounding this murder that riveted and obsessed the country almost daily from the moment it happened through the trial. During the depths of the Great Depression thousands came on pilgrimage to the site.

This is an exceptionally well-written account bringing new insight to everyday life in the Jim Crow South. With appeal for nonfiction, historical fiction, true crime and mystery fans, this is a book that every college student should read. Highly recommended for all public and academic libraries.

Laurie Baumgardner
Gardner-Webb University
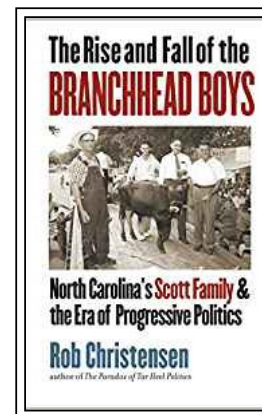
The Rise and Fall of the Branchhead Boys: North Carolina's Scott Family & the Era of Progressive Politics

Christensen, Rob
Chapel Hill: University of North Carolina Press, 2019. 323 pp. $30.00. ISBN 978-1-4696-5104-0.

North Carolina has had a colorful political history, featuring many interesting characters both nationally known and more obscure. *The Rise and Fall of the Branchhead Boys* follows the story of three generations of North Carolina politicians of the Scott family – W. Kerr Scott, Robert Scott, and Meg Scott Phipps (primarily Kerr and Robert, who spent considerably more time in various political roles). Between them they served in multiple offices from Agriculture Commissioner to Governor to

U.S. Senate, and the history of the family is covered as well as their political careers. While the Scott family is interesting in their own right, the book also provides significant insight on North Carolina politics throughout the 20th century, and how the policies and priorities of the Democratic and Republican parties and their voters have changed over time, thus making it a chronicle of North Carolina political history as well as a biography of a family of politicians.

The needs of rural farmers, attitudes towards race and civil rights, and the effects of national politics all played a role in the rise and ultimate end of the Scott family's political machine, and the role of each is well covered. Christensen, a political columnist and author of *The Paradox of Tar Heel Politics*, is well-versed in the state's political history, and brings it to life with excellent writing infused with quotations from both his main subjects and others who were involved at the time. While the book doesn't read like a novel, it does draw the reader in to find out "what happened next" and flows smoothly. It is clearly well-researched with copious references, and an extensive index is quite helpful for anyone wanting to use this book in their own research. Pictures scattered throughout the book help bring both the Scott family and the world of early to mid-20th century North Carolina to life.

The Rise and Fall of the Branchhead Boys is highly recommended to anyone interested in North Carolina politics or history, and will appeal to those with a general interest in politics as well. It is essential for all libraries with a North Carolina collection, and would be an excellent purchase for any library outside the state with a strong political science collection.

Lara B. Little
Pfeiffer University

Where we find ourselves: The photographs of Hugh Mangum, 1897-1922

Hugh Mangum, with Margaret Sartor and Alex Harris, eds.
Chapel Hill: University of North Carolina Press, 2019. 166 pp. ISBN 9781469648316.

The book *Where we find ourselves: The photographs of Hugh Mangum* is a curated collection and exploration of Hugh Mangum, a photographer and North Carolina native who worked during the early decades of the 20th century. Although Mangum did not achieve the same level of fame during his lifetime as some of his contemporaries, the editors of this collection make a strong case for why Mangum's surviving works should be celebrated and studied more closely.

Similar to their previous collaboration, *Dream of a house: The passions and preoccupations of Reynolds Price*, Margaret Sartor and Alex Harris arrange the photographs taken by Hugh Mangum in a way that helps to illustrate the story of his career. Both Sartor and Harris are writers, photographers, and professors at Duke University's Center for Documentary Studies, making them well-suited to tell the story of Mangum's photography. The foreword and introduction to the book, written by Deborah Willis and Michael Lesy respectively, set the scene by providing some historical and social context for Mangum's photography. As discussed in the introduction, the early years of the 20th century were filled with racial strife and legally enforced segregation; Mangum's studio seems to be one of the few racially integrated spaces. Accompanied by a selection of some of the portraits of both black and white, wealthy and working-class, Southerners, the text and images illustrate the kind of person and artist Mangum was. His ability to capture everyone from any walk of life in an engaged, captivating manner is one thing that makes Hugh Mangum's photography distinct and exceptional.

Following the introduction is the section showcasing portraits taken by Hugh Mangum. Aside from the diversity among the subjects of these portraits, what is noteworthy is the wide variety of poses and backgrounds. This collection of prints includes some visual flourishes such as double exposed images and the inclusion of prints that have sustained some damage, which makes the passage of time very apparent. The double exposed prints provide an interesting juxtaposition between images. For example, there is one image of a young woman posing alone intermingled with a portrait of a family with three infants. This image, like some of the others, almost begs to start a dialogue with the viewer and that makes the double exposures visually compelling.

Sartor's essay provides biographical details that paint a picture of Mangum as the kind person that does not neatly fit a modern reader's idea of a middle-class white man from that era. For example, Mangum attended Salem College (which is a Moravian Church-affiliated women's college that admitted people of color), to continue his studies of the fine arts. This allows the reader to infer that Mangum held an egalitarian viewpoint regarding gender and race, usually in a point in history when it is presumed many white men did not. Intertwined in this essay is the history of Durham, North Carolina, and the ways that the city grew and evolved around the turn of the 20th century. The historical and cultural

complexities around race and class are key to understanding the ways Mangum's portraiture stands apart from other artists working in the same medium. Sartor explores the ways Mangum's hometown influenced his approach to his work. Additionally, the essay includes discussion of some of Mangum's contemporaries, further emphasizing the uniqueness of his photography. The book concludes with the tale of how Sartor and Harris began working on the project that resulted in the associated museum exhibit and the work in hand.

Where we find ourselves now: The photographs of Hugh Mangum can be of interest to a general audience but will most likely appeal to audiences with an interest in visual arts and photography. This book would be ideal for libraries collecting titles about North Carolina history — specifically the history of Durham, photography, and art.

Tiffany Henry
University of North Carolina
Greensboro
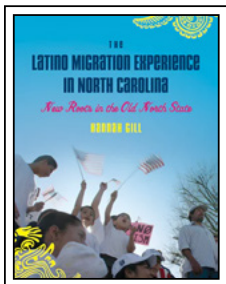
The Latino Migration Experience in North Carolina: New Roots in the Old North State

Hannah E. Gill's *The Latino Migration Experience in North Carolina: New Roots in the Old North State* is the revised and expanded second edition of a classic text on the Latino migration experience between North Carolina and Mexico primarily, but also other Latin American countries. The first edition was reviewed insightfully by Elizabeth Dunn of Duke University in the Fall/Winter 2010 issue of *North Carolina Libraries* (pp. 23-24).

Since 2010, Gill has worked with colleagues and students at UNC-Chapel "to create an accessible bilingual resource for people with experiences of migration to continue sharing their stories" (p. xii). The resulting online initiative, the *New Root/Nuevas Raices Oral Histories*, now includes audio recordings and full transcripts from interviews with more than two hundred people from fifteen Latin American and Caribbean countries in twenty-one North Carolina counties. Gill emphasizes the importance of these stories for future Latino generations seeking the stories of their immigrant predecessors.

In addition to updated statistics and chronology of legislation affecting Latino immigrants, this second edition contains a new chapter on the Dreamer movement and the Deferred Action for Childhood Arrivals Program (DACA) from the Obama years to recent challenges from the Trump administration. Gill reports on successes, notably the South Alamance Elementary (SAE) School in Graham, Alamance County, a county Gill identified as "infamous for its anti-immigrant policy making and policing" (p. 179). Gill concludes with her assessment of the positive effect of the SGE experience on its students: "While these students will continue to encounter challenges outside of school, they may be better prepared to reform the systems they inherit and transform dreams of equality into reality" (p. 179)

Gill is associate director of the Institute for the Study of the Americas and research associate at the Center for Global Initiatives at the University of North Carolina at Chapel Hill. Both editions of Gill's monumental work should be in the public, academic, and school libraries where readers can learn about creative and positive ways to welcome Latinos to the Old North State.

Al Jones
East Carolina University
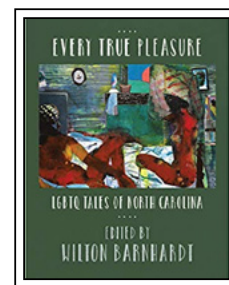
Every True Pleasure: LGBTQ Tales of North Carolina

With apologies to the famed poet-critic Robert Pinsky, who wrote "the best anthology is the one each reader compiles, personally," much thanks is due to Wilton Barnhardt for compiling on our behalf the 21 stories and essays in *Every True Pleasure: LGBTQ Tales of North Carolina*. The collection presents varied experiences and unique struggles of LGBTQ persons, while also showing that heterosexual and LGTBQ lives are intertwined and not always so different from each other.

Barnhardt is an author and a professor of creative writing at North Carolina State University. He has amassed entries from "vital, keen, and observant" contributors in this volume. Each contributor, some award-winning and internationally known and some newer voices, has strong ties to or is a native of

North Carolina. Contributors include Jasmine Beach-Ferrara, Brian Blanchfield, Belle Boggs, Emily Chávez, Garrard Conley, John Pierre Craig, Diane Daniel, Allan Gurganus, Minrose Gwin, Aaron Gwyn, Wayne Johns, Randall Kenan, Kelly Link, Zelda Lockhart, Toni Newman, Michael Parker, Penelope Robbins, David Sedaris, Eric Tran, and Alyssa Wong.

Many of the writings have recognizable settings and customs to North Carolina. The stories and essays are all well written and evocative. Each fiction story has believable plots and as well-developed characters as possible for short format writing. The breadth of life is covered, including dynamics of family members and friends, first love, sex, children, loss, and death.

Some stories are enjoyable reads with laughter, or are thought-provoking. Others address difficult situations -- including assault, rejection, and religious damnation -- and present complex viewpoints with relatable, sometimes pitiable or infuriating persons, leading to reflection, sadness, or even anger. Among the most stirring stories are the two of spouses seeking gender confirmation surgery with the many feelings, questions, and perspectives that often arise among all involved with transitioning.

The volume's introduction briefly places this collection within the context of queer literature. Readers will likely reach the end of the volume wanting to read more from these collected authors and their peers. The concluding discussion guide will prove highly useful in prompting group consideration and personal reflection on these varied works and the many issues that they broach.

Every True Pleasure is a most welcome addition to Southern and Queer literature and is perhaps unique in its North Carolina focus and breadth of LGBTQ experiences represented. It is most suitable for academic and public libraries that provide LGBTQ literature for their patrons. Academic libraries that support curricula that draws from minority voices should especially purchase this book. While several stories include high-school-aged individuals or recounted memories of high school, the book should be reviewed carefully for age-appropriateness before being selected for a high school library. Any library seeking to represent the diverse voices and experiences of North Carolina should add this book to its collection.

C. William Gee
East Carolina University

North Carolina's Revolutionary FOUNDERS

Edited by
JEFF BROADWATER
and TROY L. KICKLER
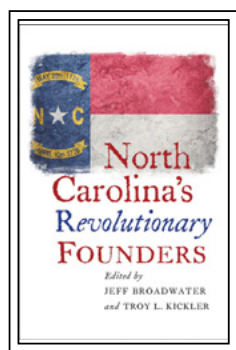
North Carolina Revolutionary Founders

Author Jeff Broadwater, a historian and scholar, has written several books on the Founding Fathers and other scholarly history books, including George Madison: Forgotten Founder; Eisenhower and the Anti Communist Crusade; James Madison: A Son of Virginia and a Founder of the Nation; and Jefferson, Madison and the Making of the Constitution. Author Troy L. Kickler is a research historian at the State of North Carolina Office of Archives and History, Department of Natural and Cultural Resources. The authors skillfully divided this collection of essays into five sections. Each section moves swiftly from one to another, including "The Revolutionaries," "The West," "The Federalists," "The Anti-Federalists," and "The Legacies of the Revolution." The authors highlighted prominent and influential North Carolina political leaders and founders from the Revolutionary era to the ratification of the Constitution of the United States. This collection of essays provides vivid and detailed accounts from the Federal System of the United States to the Declaration of Independence by thirteen North American states from Great Britain in 1776. North Carolina was a part of this Revolutionary period which reflects the political, social, and judicial systems of the state. Revolutionaries were responsible for periods of unrest, but also for prosperity in North Carolina.

The title of this book connects well with the contents and the authors presented each section as an anthology, including an individual author to each section and well detailed notes for future reference(s). The reader will certainly relate to the narratives and accounts in this collection of essays while reviewing the retrospective history of North Carolina. The authors give the readers a unique history of the time and a significant contribution to the history of North Carolina, in particular and the United States, in general. The book will certainly be appealing in academia and in the private sector as it will aspire and draw attention among professionals and academics in history.

The book is recommended and will be an invaluable read as a class-adopted textbook in colleges and universities. It is also recommended as a good selection for libraries, in both print and electronic formats, and as an important source for electronic database vendors and digital publishers to add to their collections for more access to readers.

Esther O. Burgess
North Carolina Wesleyan College
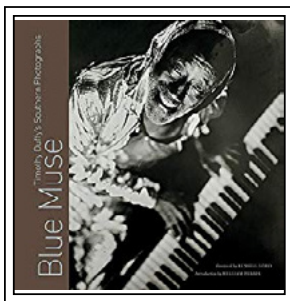
Blue Muse: Timothy Duffy's Southern Photographs

Duffy, Timothy
Chapel Hill: University of North Carolina Press, 2019. 152 pp. $60.00. ISBN 978-1-4696-4826-2. E-book ISBN: 978-1-4696-4827-9.

Duffy's powerful photos introduce the reader to American roots musicians in the South. Using photographs to reflect a moment in time, Duffy presents images that tell a story of the performers of the traditional music of folk, jazz, gospel, rock, and the blues. Russell Lord, in his foreword, discusses the works as Duffy's "attempts to reclaim their subjects' rightful status as the creators, custodians, purveyors, and performers of American music" (p. ix). The photographs are a means that Duffy uses to document the legacies of the artists. He has a deep respect for his subjects and explains that "they are keenly aware of the treasure of music they inherited from the elders who taught them and feel duty-bound to pass it on to the next generation" (p. 5).

Through the historic photographic technique of the tintype, more precisely known as the ferrotype, Duffy captures the images by using a large special camera in which the plates are directly produced. Duffy explains the process in his artist's introduction which emphasizes the immediacy of the method that produces a single photograph but no negative that would allow for multiple prints. Light and shadow become part of the evocative, striking quality of the photos.

Compelling visuals of his subjects portray the performers with expressions that can be interpreted as ranging from joyful and fearless to poignant and heartbreaking. The clarity of the portraits brings every facial detail into focus. The emotions of eyes in a glance or a bold look give the impression of immediacy and intimacy.

Brief notes provide biographical information about the subject of each plate, including such individuals as keyboardist Ironing Board Sam, blues singer Pat "Mother Blues" Cohen, and Freeman Vines, a maker of guitars. The settings for the photos are a combination of the studio, interiors of homes or music venues, and exterior shots on lawns or in a meadow. Always it is the person who captures the attention of the reader.

Blue Muse was published in association with the New Orleans Museum of Art, where Duffy held a solo exhibition that included thirty of the photographs from the book. UNC Press is the publisher of Duffy's *Music Makers: Portraits and Songs from the Roots of America*, and his title, *We Are the Music Makers! Preserving the Soul of America's Music*, co-authored with Denise Duffy.

This beautiful book will appeal to all readers interested in photography, roots music, and the culture and peoples of the South.

Christine Fischer
University of North Carolina at Greensboro

Looking for help with collection development?

If you want to expand your library's collection of novels set in North Carolina, you should visit the Read North Carolina Novels blog hosted by the North Carolina Collection at the University of North Carolina at Chapel Hill (http://blogs.lib.unc.edu/ncnovels/).

If your interest in North Caroliniana is more general, the North Carolina Collection at UNC-Chapel Hill regularly posts lists of new additions to their collection at this address: http://blogs.lib.unc.edu/ncm/index.php/whats-new-in-the-north-carolina-collection/.
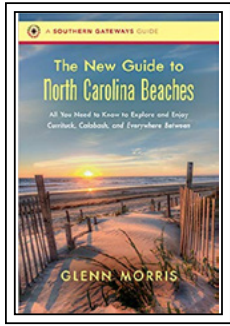
The New Guide to North Carolina Beaches: All You Need to Know to Explore and Enjoy Currituck, Calabash, and Everywhere Between

Glenn Morris
Chapel Hill: University of North Carolina Press, 2019. Series: A Southern Gateways Guide. 416 pp., 21 illus., 39 maps. $24.00. Paperback. ISBN: 978-1-4696-5173-6. E-book ISBN: 978-1-4696-5174-3.

Guiding us along the Carolina coast from north to south, Morris suggests more adventures than we could ever accomplish in a lifetime. His introduction prepares us for beach travel with helpful information about swimming safety, bicycle access, coastal history, fishing permits, and even best routes to the coast. Each chapter then describes one county's beach access, ferries, wildlife refuges, nature preserves, museums, lighthouses and historic sites. Our two national seashores, Cape Hatteras and Cape Lookout, are included in our north to south journey. Detailed maps keep us oriented to roads and suggested destinations, and URLs embedded in the text guide the reader to further details and current operating schedules. Our diverse islands, sounds and communities are richly celebrated, and I especially appreciate coverage of our coastal habitats and wildlife.

Morris, who works as a writer and journalist, has included many of his short feature articles that add richness, humor, and a personal perspective to each chapter. These articles allow us to slow down and think more deeply about topics like "The Shape of Islands", "Sea Turtles Sandy Crawl Home," and "A Slice of Island Life."

Written as the 4th edition of North Carolina Beaches, this "new guide" updates all we need to know about the rapidly developing coastal area of our state. An essential "keep in the car" resource for those who frequently visit the North Carolina coast, this guide is also an excellent addition to public library collections and to academic libraries that offer outdoor adventure collections.

From the moment they open this book, readers are magically transported to sand between their toes and sun on their shoulders. From Knott's Island in the north to Bird Island in the south, the long North Carolina coast offers endless exploration for us all.

Dianne Ford
Elon University

Wired to the World

Ralph Scott

Ideas for Searchers/Developers

Working on the Web can sometimes be overwhelming. Donald Rumsfeld is famous for his quote:"Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones." In many ways that hardest part of working on the Web are the "unknown unknowns." However, there are a number of things we can to do make the web more inviting and useful.[1]

In Web use/development knowing what your goals are is important. In UX knowing what the outcome is supposed to be is important. What is the software supposed to do? What do you want the user to discover? Are they writing a term paper, dissertation or just want to know some information? When the user finishes will the software/application provide them with the "unknown unknowns"? Vendors are famous for their "vapor wear." If you have a goal in mind of course their software can do it. But if they don't understand your goals then just buying a piece of software from a vendor or developer and hoping for the best will not help. If your goals are not clear, then stop and ask the hard questions.

Realize that using the web/developing applications is a process not a destination. The Web changes every moment. New information becomes available, old information is now out of date. Application goals change. What you thought the software would do, might also serve other users in a different role. At the end of the day it's nice to say "I've got this," but you really haven't you have just finished the known knowns. What did you learn about the Web, the software, the UX? Learning from your mistakes can be hard, but testing, re-developing, and exploring options are all part of the process. It's the process, not the destination that makes you a better web searcher or developer.

Speak up if you don't like something, or don't know something. If the application or Web site does not work on your iPhone, but only works on Android devices, speak up. If you are not familiar with how to search a database, speak up. Tell the patron this is the first time you are searching in this resource, but you believe it might answer their question. If an application sucks, then say so. Don't just grumble, say "there are too many choices on this page" or "light green text on dark purple background does not work." Try to find the unknown unknowns. Understanding how the application works is as important as knowing what it provides. Haven't used AGRICOLA in five years? Don't be afraid to ask someone, or play around with it again. Tell the folks at AGRICOLA what you like and what you don't like about their database. Improve and provide a positive outcome for something that you have a concern about.

Tech has its limitations, be honest about them. If it is going to take time to search the database, let the patron know. Often users expect ten relevant articles to come up on the screen on the first go. You are standing at the counter trying to locate the relevant materials and today it's just not coming up. You may need to suggest to the patron that the topic is one that will require more study and that you are willing to contact them when you have found more information. If the software or webpage is not working out, say so and see if a compromise can be worked out to make the UX a better one. Don't settle for something that does not meet the user's needs. Know what the application can do as well as what it can't and explain that to the user. If the hardware just won't do the trick, be honest and tell people. Maybe more that the software needs upgrading?

Study and grow new ideas and applications. Work with colleagues in other areas and see how they solve similar or different problems. Explore course offerings at Library Schools and other online learning venues. FutureLearn (https://www.futurelearn.com/) is an example of this low-cost idea generator. The North Carolina Library Association is a great place to network and get input to your library. Exhibits at the NLCA Conference expose you to new technology and vendors. Is there a better mousetrap? Well that depends on the unknown unknowns. Being creative and full of ideas for building the next better mousetrap are found when librarians get together and network.

1. Donald Rumsfeld, as quoted in U.S. Department of Defense news briefing, 12 February 2002, https://archive.defense.gov/Transcripts/Transcript.aspx?TranscriptID=2636

Lagniappe *

William Joseph Thomas, Assistant Director for Collections and Scholarly Communications, Joyner Library, East Carolina University

From "The Lost Colony" to "Unto These Hills": Outdoor Theatre in North Carolina

Summertime is high season for outdoor dramas, and North Carolina has a rich history of them. Many NC natives have attended a production of "The Lost Colony" in Manteo or "Unto These Hills" in Cherokee. Other outdoor dramas in our state include "Strike at the Wind," in Pembroke; "Horn in the West," in Boone; "Tom Dooley: A Wilkes County Legend," in Wilkesboro; "First for Freedom," in Halifax; and "From this Day Forward," in Valdese. Shakespeare has his place in North Carolina too, from Asheville's Montford Park Players to Wilmington's Cape Fear Shakespeare.

The first, and arguably best-known, of North Carolina's outdoor dramas is "The Lost Colony." Written by Pulitzer prize-winning NC native Paul Green to commemorate its 350th anniversary, "The Lost Colony" tells the story of the intended settlement of 1587 and subsequent disappearance of the 117 English colonists, including Virginia Dare, first English child born in the New World.[1] Opening night was July 4, 1937, in the Waterside Theatre built by local Civilian Conservation Corps workers.[2] Since a successful opening season, marked by the attendance of President Roosevelt on August 18th, "The Lost

Figure 1: Andy Griffith in the *The Lost Colony*, 1950, from Joyner Library Digital Collections, http://digital.lib.ecu.edu/34133.

Colony" has entertained millions of audience members and provided opportunity for some 5,000 actors, including favorite North Carolina son Andy Griffith. The production is still going strong, now in its 82nd season in Manteo.

"Strike at the Wind" tells the story of the legendary Lumbee Henry Berry Lowry and his "gang" of outlaws who evaded capture in swampy land around Robeson County from 1864 to 1872.[3] Written by NCCU professor of drama Randolph Umberger, "Strike at the Wind" was performed at the Lakeside Amphitheatre near Pembroke from its opening on July 1, 1976, to 1996, and revived from 1999 to 2007. Production had a 10-year hiatus before being adapted for indoor performance in 2017 at the Givens Performing Arts Center,

1. Roanoke Island Historical Association. "The Lost Colony – A History of Making History." The Lost Colony. https://www.thelostcolony.org/the-lost-colony/.

2. Williams, Ashley. "Outdoor Theatre and the New Deal, Take Two." Bringing the Outdoors 'Indoors': Processing the Institute of Outdoor Theatre's Archives. https://web.archive.org/web/20170707184426/http://blog.ecu.edu/sites/outdoortheatre/.

3. Oakley, Christopher Arris. The Legend of Henry Berry Lowry: Strike at the Wind and the Lumbee Indians of North Carolina. Mississippi Quarterly 60, no. 1 (2006): 59-80.
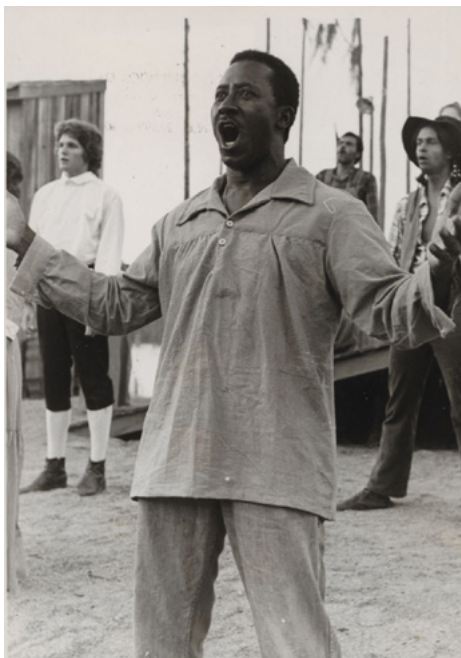
Figure 2: "Strike at the Wind" photo from Joyner Library Digital Collections, http://digital.lib.ecu.edu/37046.

Figure 3: Detail from "Unto These Hills" Souvenir Program, 2005, from Joyner Library Digital Collections, http://digital.lib.ecu.edu/36971.

and is, in July 2019, returning to the outdoors, with performances scheduled for the Adolph Dial Amphitheatre at the Lumbee Tribe Cultural Center.[4] For the intriguing story of "Strike at the Wind" and its initial production and reception, see Christopher Oakley's "The Legend of Henry Berry Lowry: *Strike at the Wind* and the Lumbee Indians of North Carolina."

"Unto These Hills," the second-longest running outdoor drama in the US, was first staged July 1, 1950, at the Mountainside Theater in Cherokee. "Unto These Hills" was sponsored by the Cherokee Historical Association, with help in the planning and production by Samuel Selden of UNC Chapel Hill's Department of Dramatic Arts. Written by UNC

doctoral student Kermit Hunter, who also wrote "Horn in the West," among other plays, "Unto These Hills" traces the outline of Cherokee history from their interaction with de Soto in the 1540s to Removal in the 1830s. The original version of the play ends with Tsali's self-sacrifice that enabled the Eastern Band to remain in the North Carolina mountains.[5] Beginning in the late 1990s, the script was revised several times to correct historical inaccuracies, including 2007, by Linda Swimmer, a tribal member who is also part of the Cherokee Historical Association.[6] Recently a decision was made to return to a modified version of Hunter's original script. That revised version of Hunter's original play is now in production for the summer of 2019.[7]

Support for these and other outdoor theatre productions in our state was provided by The Institute of Outdoor Theatre (IOT). The IOT has provided research, education, and advocacy for outdoor dramas, not just in North Carolina, since its founding in 1963 in Chapel Hill as the Institute of Outdoor Drama. Many of the playwrights, producers, and others involved in "The Lost Colony," "Strike at the Wind," "Unto These Hills," "Horn in the West," and other notable North Carolina outdoor dramas were part of the Institute of Outdoor Drama, UNC Chapel Hill's Department of Dramatic Arts, or the associated Carolina Playmakers (later Playmakers Repertory Company)—Paul Green, Samuel Selden, Kermit Hunter, and Randolph Umberger, among

4. "'Strike at the Wind!' Returns to Amphiteatre for a Sold-Out Show." *The Robesonian*, July 8, 2019, sec. Features. https://www.robesonian.com/features/124921/strike-at-the-wind-returns-to-adolph-dial-amphitheater.

5. Moore, Cecelia. "Outdoor Dramas." *NCPedia*. 2006. https://www.ncpedia.org/outdoor-dramas.

6. Smithers, Gregory D. "A Cherokee Epic: Kermit Hunter's Unto These Hills and the Mythologizing of Cherokee History." *Native South* 8 (2015): 1-30.

7. "'Unto These Hills' Outdoor Drama." Cherokee North Carolina. http://visitcherokeenc.com/play/attractions/unto-these-hills-outdoor-drama/.

8. Department of Dramatic Art of the University of North Carolina at Chapel Hill Records #40080, University Archives, Wilson Library, University of North Carolina at Chapel Hill.

others. More details and some records related to the Institute of Outdoor Drama are available in the records of the Department of Dramatic Arts for UNC Chapel Hill at Wilson Library.[8] In 2010, the Institute was relocated to East Carolina University, and in 2014, Institute records were donated to ECU's Joyner Library. The Library received funding from the National Archives' National Historical Publications and Records Commission to process the collection and begin digitization.[9] Records in the collection span some 600 outdoor theatres across multiple states, including some that began in the 1920s. The plays themselves portray a panoply of American heroes and villains, from Lewis & Clark to Blackbeard, Billy the Kid to Johnny Appleseed. Material types in the collection include scripts, promotional materials, photographs, letters,

and audio and video files on everything from reel-to-reel tapes to floppy disks. Nearly 1,500 items from the collection have now been digitized and are available online. Highlights of the digital materials include photographs of the construction of the Waterside and the Mountainside Theatre (homes of "The Lost Colony" and "Unto These Hills"), a brochure from the premier season of "Strike at the Wind," an audio recording of "Horn in the West," and a silent film about the Lost Colony.

There was another transition in store, though: the Institute for Outdoor Theatre came under the aegis of the Southeastern Theatre Conference in 2017, although it continues its service today.[10]

The Southeastern Theatre Conference remains committed to "maintaining and building upon services that

have long been valued by the outdoor theatre community, including Summer and Outdoor Theatre Auditions, an annual national conference, year-round consulting, and online resources".[11] The Institute of Outdoor Theatre maintains its own website, to connect interested people to theatres by state (and country), to link to their book on *Outdoor Theatre Facilities* and other publications, and to point researchers to the Institute's archives at Joyner Library. Researchers are welcome to Joyner Library to make use of the collections.

And get outside! Which outdoor theatre production will you see this summer?

9. Institute of Outdoor Theatre Archives (#1250), East Carolina Manuscript Collection, J.Y. Joyner Library, East Carolina University, Greenville, North Carolina, USA.

10. Horth, Betsey. "Institute of Outdoor Theatre to Become Part of SETC." *SETC News*. July / August 2016. https://issuu.com/setc.org/docs/2016-july-august/15?e=3431256/35348833.

11. "Outdoor Theatre." Southeastern Theatre Conference. https://www.setc.org/about/iot/.

Figure 4: Institute of Outdoo Theatre Logo

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