

Article

Re-Localizing the Library: Considerations for the Anthropocene

Amy Brunvand

ABSTRACT

The preservation mission of libraries means that all librarians are futurists. When librarians curate collections, we have to make guesses, and those guesses tell a story about what we value and what we hope for. A dominant story about the Anthropocene is about a globalized, technological future in which libraries and librarians will become obsolete. An alternative, more human story is suggested by place-based scholarship regarding the relationship between human beings and the places we live. A place-based library is more than simply a portal or container for information; the library itself becomes part of a story about place and an active participant in cultural sustainability. Libraries exist as local nodes within a global information network, each with unique community concerns that should be reflected in collections and services.

Brunvand, Amy. "Re-Localizing the Library: Considerations for the Anthropocene," in "Libraries and Archives in the Anthropocene," eds. Eira Tansey and Rob Montoya. Special issue, *Journal of Critical Library and Information Studies* 3, no. 1 (2020). DOI: [10.24242/jclis.v3i1.94](https://doi.org/10.24242/jclis.v3i1.94).

ISSN: 2572-1364

INTRODUCTION: LIBRARIES IN THE ANTHROPOCENE

Before the Anthropocene had a name, Bill McKibben wrote about it in his 1989 bestseller *The End of Nature*.¹ This was the first warning of climate change aimed at a general audience, and it is still essential reading for climate activists. McKibben's next book, *The Age of Missing Information*, is essential reading for Anthropocene librarians.² The missing information of the title is specifically local, place-based knowledge, and in the age of the Internet, it is still missing. McKibben's book was published only a few years before existing mass media structures were upended by the democratization of the Internet. It is an experiential account of 24 hours spent camping on a mountain compared with the content broadcast on 24 hours' worth of cable television.³ Spoiler alert: aside from the weather report there was almost no information overlap. It is no surprise that information tailored to appeal to a very large number of people is generic to the point of being largely irrelevant to daily life. Even today, McKibben's meditation on information space gives rise to a profound and increasingly urgent question: in a globalized world, how do we learn about the places where we live? The question is particularly relevant for librarians who have a professional and ethical responsibility to their communities. Many libraries hold regional special collections and there has been much talk about public libraries and resilience, but at the same time the larger profession has bought into a reductionist myth that casts libraries primarily as portals to a globalized and commercialized online knowledge system.⁴

This stands in stark contrast to scholarship from environmental psychology, environmental humanities, human geography, regional studies and other disciplines that position local knowledge, place identity, and place attachment as keys to community resilience and sustainable change.⁵ Pride of place has proven to be a practical

¹ Bill McKibben, *The End of Nature* (New York, NY: Random House, 1989). Since 1989, the word "Anthropocene" has become shorthand for a time period when purposeful and unintended consequences of human activity are stressing major planetary systems, possibly to the point of collapse. While the word had been used earlier, a serious proposal to re-name the Holocene was first made by atmospheric chemist Paul Crutzen in 2002.

² Bill McKibben, *The Age of Missing Information* (New York, NY: Random House, 1992).

³ McKibben recorded all available channels, logging significant couch-potato time.

⁴ See for example, Joseph Branin, Frances Groen, and Suzanne Thorin, "The Changing Nature of Collection Management in Research Libraries," *Library Resources & Technical Services* 44, no. 1 (2011): 31. "Perhaps the most critical and difficult task facing knowledge managers will be to understand and fully exploit the potential of a networked, digital information system to overcome the narrower perspective of the 'local' and the 'immediate.'"

⁵ Relevant review articles include: Robert Gifford, "Environmental Psychology Matters," *Annual Review of Psychology* 65 (2014): 541-579; Vanessa A. Masterson, Richard C. Stedman, Johan Enqvist, Maria Tengö, Matteo Giusti, Darin Wahl, and Uno Svedin, "The Contribution of Sense

conservation tool that can drive significant behavior change.⁶ While many libraries offer programming, collections and services defined by geography, the work of fostering place attachment and place identity have not generally been understood as a core library mission.⁷ Particularly in academic libraries, the trend has been towards a vision of “global libraries for a global university,”⁸ One consequence of sidelining local knowledge has been homogenization of information as libraries end up buying the same materials from the same vendors, much of it licensed online content.⁹ Librarians profess a mission of globalized education, but they also have a role as stewards of local cultural heritage to support development of identity.¹⁰ With a better understanding of how place attachment and place identity support community resilience, librarians can ask better questions. Do library collections and services help connect people to their communities and to the places where they live? Or are we making decisions that undermine place attachment by prioritizing homogenous, globalized, corporatized information? What would it take to really create a library-of-place? Not merely an attractive space with comfy chairs, broad tabletops, fast Internet and plentiful electrical outlets; not just a “third place” for

of Place to Social-Ecological Systems Research: A Review and Research Agenda," *Ecology and Society* 22, no.1 (2017): <https://doi.org/10.5751/ES-08872-220149>; Lawrence Buell, Ursula K. Heise, and Karen Thornber, "Literature and Environment," *Annual Review of Environment and Resources* 36 (2011): 417-440; Greg Downey, "Human Geography and Information Studies," *Annual Review of Information Science and Technology* 41, no. 1 (2007): 683-727.

⁶ Paul Butler, Kevin Green and Dale Galvin, *The Principles of Pride: The Science Behind the Mascots* (Arlington, VA: Rare, 2013): 7. “Rare trains local conservation leaders all over the world to change the way their communities relate to nature. Its signature method is called a ‘Pride campaign’ – so named because it inspires people to take pride in the species and habitats that make their communities unique.”

⁷ Karen P. Nicholson, “On The Space/Time of Information Literacy, Higher Education, and the Global Knowledge Economy,” *Journal of Critical Library and Information Studies* 2, no.1 (2019): 3. “While there has been renewed interest in space/time within the humanities and social sciences since the 1980s, Library and Information Science (LIS) has not taken up this spatial turn with the same enthusiasm—or the same degree of criticality—as other social science disciplines.”

⁸ Task Force on the Future of Libraries, *Institute-Wide Task Force on the Future of Libraries: Preliminary Report* (Cambridge, MA: Massachusetts Institute of Technology, 2016).

⁹ H. Thomas Hickerson, “Rebalancing the Investment in Collections,” *Research Library Issues: A Bimonthly Report from ARL, CNI and SPARC*, no. 277 (December 2011), 5. “Most of our collections funding is devoted to licensing electronic publications, and most of those publications are academic journals. And most of what we buy is being bought by everyone.”

¹⁰ *IFLA Statement on Libraries and Development* (International Federation of Library Associations, August 2013), www.ifla.org/publications/ifla-statement-on-libraries-and-development.

community gathering;¹¹ but a re-localized information space that curates, preserves and tells a story about a specific place—one that respects and represents both the human and non-human environment, promotes civic engagement and the democratic process and enables members of the community to be active participants in writing their own story?

The idea that a library tells a story may sound childish, but stories, not facts and data, are the way that people communicate with each other. It is not too much to say that stories create the world.¹² One way to think about the Anthropocene is as a set of unintended consequences from stories we tell ourselves about progress and civilization. Paul Kingsnorth and Dougald Hine propose that the current economic and environmental unraveling is at heart a crisis of storytelling and call for a new style of “uncivilized” writing and art to counter the Anthropocene myth of progress in which human hubris plays the role of God: “we will reassert the role of storytelling as more than mere entertainment. It is through stories that we weave reality.”¹³ While scholarly communication is considered a gold-standard of accuracy, scientific papers seldom have public impact until they are popularized, recast by politicians, journalists, activists and literary writers into narrative, plot, and metaphor.¹⁴ Rebecca Solnit, who has become a kind of muse for the Anthropocene, writes, “A place is a story, and stories are geography, and empathy is first of all an act of imagination, a storyteller’s art and then a way of traveling from here to there.”¹⁵ A re-localized, uncivilized library would not just be a place to access a collection of universal data, it would become a means of traveling from here to there, telling an ongoing story about the concerns of certain people who live in a certain place. The key to

¹¹ Ray Oldenburg, *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community* (Boston, MA: Da Capo Press, 1999). Oldenburg defines the “first place” as home, the “second place” as work and the “third place” as community spaces, including libraries.

¹² Jerome Bruner, “The Narrative Construction of Reality,” *Critical inquiry* 18, no. 1 (1991), 21. “The daunting task that remains now is to show in detail how, in particular instances, narrative organizes the structure of human experience – how in a word ‘life’ comes to imitate ‘art’ and vice versa.”

¹³ Paul Kingsnorth and Dougald Hine, *Uncivilisation: The Dark Mountain Manifesto* (Croydon, UK: Dark Mountain Project, 2009): <http://dark-mountain.net/about/manifesto/>. “[The myth of civilization] is built upon the stories we have constructed about our genius, our indestructability, our manifest destiny as a chosen species.”

¹⁴ Michael F. Dahlstrom, “Using Narratives and Storytelling to Communicate Science with Nonexpert Audiences,” *Proceedings of the National Academy of Sciences* 111, Supplement 4 (2014), 13618. “‘The plural of anecdote is not data’ remains an important mantra to uphold the rigor of systematic data collection. However, when considering the communication of science to nonexpert audiences, a more appropriate mantra might be, ‘the plural of anecdote is engaging science communication.’”

¹⁵ Rebecca Solnit, *The Faraway Nearby* (New York, NY: Viking Penguin, 2013), 3.

this story is McKibben's missing information which has the power to reconnect people to their communities through locally relevant environmental and socio-cultural knowledge.

ANTHROPOCENE STORIES

As far as libraries go, there are three predominant stories about the Anthropocene. The story of business-as-usual is a techno-optimist story that says everything is just fine. In a globalized world, a simulacrum of prosperity can be built (at least for a global elite) on creative destruction, disposable culture, single-use plastic, and a cult of money. Human ingenuity will enable us to science our way out of current difficulties. The brave new library-of-the-future will be digital and unconstrained by geography. Inefficient local work will be streamlined and centralized, with outsourced collections distributed as bundled, pre-cataloged online objects. Reading will be optimized by an algorithm to transmit job-related skills to a burgeoning, increasingly urban, human population. Shelves will be emptied of redundant print books in order to fill space with technological consumer gadgets, and whatever analog material is not sent to the trash heap can be consolidated in remote storage. Since everyone everywhere can access the exact same dataset, librarians can be replaced with artificial intelligence and IT professionals. Convenient access to conventionally published materials is the core function, never mind that a computerized information network depends on a working grid, perpetually cheap energy and an ongoing budget for digital subscriptions. If things start to look bad, we can use genetic engineering or AI to transform ourselves into "posthumans" and move into outer space.¹⁶

By contrast, a "doomer" story about the Anthropocene holds that Earth's natural resources are being squandered at an unsustainable rate. Human activity on an ever-more densely populated planet is already stressing planetary boundaries.¹⁷ Eventually, some essential natural or economic system will fail catastrophically. It increasingly appears that the Earth's generally hospitable climate will be the first thing to break, resulting in extreme weather, wildfire, drought, and rising sea levels. The next casualty of the Anthropocene is likely to be either the industrial food system or widespread collapse of ocean ecosystems. Even if such collapse were localized, masses of displaced climate refugees would be forced to evacuate to places that are not prepared to welcome them. In conditions of crisis and collapse, the priority for libraries would be survival, crisis

¹⁶ Futurists envision human beings replaced by "posthumans" merged with artificial intelligence and "transhumans" modified by genetic engineering and bioengineering. Physicist Stephen Hawking (1942-2018) advocated space travel because he thought that a human-caused disaster would eventually wipe out life on Earth.

¹⁷ *Stockholm Resilience Centre*, <http://stockholmresilience.org>. SRC has identified nine planetary boundaries that define the safe operating space for humanity.

management, and post-disaster recovery. This library would have to be primarily analog since the grid, if there still was one, would be unreliable. While needed information might be textual, it might also be things like shelter, tools, food, seeds, providing re-skilling services, or helping community members locate government aid. Disaster prepping would be a core function.

A third story is one of sustainability—the hope that widespread collapse can be avoided or at least mitigated by a transition to more sustainable ways of living. In theory, people who have become alienated by globalized consumer capitalism could become reacquainted with their local environment and learn ways to live more gently on the Earth. In this story, community restoration and resilience are motivated by love of place and enabled by place-based knowledge. A sustainability-focused library might resemble a regional special collection with a focus on local and hyperlocal information, but with a few differences. The mission of community resilience would not be assigned to a single librarian or department but would permeate the holistic organization. The collection would preserve historical memory but would also foster forward-looking civic engagement with an eye towards sustainable change. This library would not just archive conventionally published information, librarians would commit to preservation of locally produced information such as publications from local government, local journalism, reports by citizen activists, citizen science datasets and literary writing that tells the story of place. For this library, the core function would be filling in McKibben’s missing information.

In practice, libraries are already telling all three of these stories, sometimes all at the same time. It might be fair to say that the complete Anthropocene library is globalized *and* prepared for disasters, *and* it supports community in anticipation of some kind of livable future. Nonetheless, the situation is growing increasingly urgent. In the Anthropocene, the “business as usual” scenario leads inevitably to collapse.¹⁸ We librarians say that we want to tell a more utopian story that connects human communities to knowledge. If that’s true we need to be more deliberate about creating organizational stories that are more organic and more deeply rooted in place and community, stories about a human future in which we hope to someday live.

¹⁸ Intergovernmental Panel on Climate Change Core Writing Team, *Climate Change 2014: Synthesis Report* (Geneva: IPCC, 2015), v. “Stabilizing temperature increase to below 2°C relative to pre-industrial levels will require an urgent and fundamental departure from business as usual.”

LIBRARIES AND COLLAPSE

In 2018, the *Bulletin of the Atomic Scientists* moved the hands of the Doomsday Clock a half-minute closer to midnight.¹⁹ Factors bringing the world closer to Armageddon include the erratic behavior of U.S. President Donald Trump and fake news spread by malicious actors on the Internet.²⁰ In this light, information literacy is not just a nice thing to have—the information ethics of librarianship could literally save the world. In the United States, the role of libraries for community resilience became apparent in the aftermath of Hurricane Katrina in 2005, when libraries played an unexpectedly important role in disaster response.²¹ As a consequence, the Robert T. Stafford Disaster Relief and Emergency Assistance Act was amended to include libraries as essential community organizations eligible for temporary relocation during major disasters.²² An important insight from this change is that libraries are effective during disaster recovery precisely because they already constitute an infrastructure of community support, as documented by sociologist Eric Klinenberg who recognized that public branch libraries essentially serve as a network of resilience centers.²³

Because digital information is freed from tangible distribution, many librarians postulate that geographic space is irrelevant to collections. Libraries are treated as containers or portals to a conventionally published, globalized information resource,

¹⁹ The Doomsday Clock is an infographic maintained by the *Bulletin of the Atomic Scientists* since 1947. Hands are set to show the current likelihood of nuclear war and climate change catastrophes.

²⁰ Science and Security Board, "It is Now Two Minutes to Midnight: 2018 Doomsday Clock Statement," *Bulletin of the Atomic Scientists* (2018), thebulletin.org/sites/default/files/2018DoomsdayClockStatement.pdf. "The spread of disinformation [has] threatened democracy, which relies on an informed electorate to reach reasonable decisions on public policy—including policy relating to nuclear weapons, climate change, and other global threats."

²¹ Robin M. Featherstone, Becky J. Lyon, and Angela B. Ruffin, "Library Roles in Disaster Response: An Oral History Project by the National Library of Medicine," *Journal of the Medical Library Association: JMLA* 96, no. 4 (2008): 343-351.

²² Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-707 (1988); Department of Homeland Security Appropriations Act, 2007 PL 109-295 allows the president to define facilities to define essential services, including libraries; David Loebbeck, *Congressional Record*, 10/20/2009, E2574-E2575: "After two appeals from the city, FEMA continues to state that the city's library is not eligible for temporary location assistance...I urge FEMA to reconsider their internal policies;" "ALA Commends Sen. Reed for Efforts to Ensure FEMA Provision Includes Libraries as Temporary Relocation Facilities," American Library Association, January 10, 2011, ala.org/news/press-releases/2011/01/ala-commends-sen-reed-efforts-ensure-fema-provision-includes-libraries.

²³ Eric Klinenberg, *Palaces for the People: How Social Infrastructure Can Help Fight Inequality, Polarization, and the Decline of Civic Life* (New York, NY: Crown, 2018).

while local information is given a separate niche in special collections. However, as geographer Alastair Bonnett wrote, “Sir Thomas Moore’s Greek neologism ‘utopia’ may translate as ‘no place,’ but a placeless world is a dystopian prospect.”²⁴ Places matter to people who live there, but in the Anthropocene the experience of place is often a dystopian experience of dislocation. In *The Geography of Nowhere*, a classic jeremiad against suburbanization, James Howard Kunstler observes that for many adults in the United States, the experience of place is an experience of profound loss as sprawl development covers over the special places of childhood.²⁵ Robert Michael Pyle calls the current moment a “Dark Age of place-centered knowledge,” as fewer and fewer young people are able to describe childhood immersion in the natural world.²⁶ The term “solastalgia” was coined in 2003 to describe a “form of homesickness that one gets when one is still at home” resulting from human-caused impacts that change once familiar places beyond recognition.²⁷ Libraries are situated within this Dark Age of placelessness and can be complicit in co-creating it through policies that prioritize centralized information storage, outsourced collection management and that value access to remote resources over collection, preservation and stewardship of local information.

Helena Norberg-Hodge, a pioneer of the local economy movement, says that localization is about adaptation to diversity: “any kind of monoculture is deadly.”²⁸ Information monoculture has particularly become a trend in academic libraries, due to policies that discourage idiosyncratic collecting.²⁹ A study of the OCLC database found

²⁴ Alastair Bonnett, *Unruly Places: Lost Spaces, Secret Cities, and Other Inscrutable Geographies* (Boston, MA: Houghton Mifflin Harcourt, 2014), xiii.

²⁵ James Howard Kunstler, *Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape* (New York, NY: Simon and Schuster, 1994).

²⁶ Robert Michael Pyle, “No Child Left Inside,” in *Place-Based Education in the Global Age*, ed. David Groenewald and Gregory Smith (Mahwah, NJ: Lawrence Erlbaum Associates, 2007): 155. Pyle is the founder of the Xerces Society for Invertebrate Conservation, named for the Xerces Blue butterfly (*Glauchopsyche xerces*), the first butterfly known to go extinct in North America as a result of human activities.

²⁷ Glenn Albrecht, “‘Solastalgia:’ A New Concept in Health and Identity.” *PAN: Philosophy Activism Nature* 3 (2005): 45. “It seems that many people in a variety of contexts sense that something is wrong with our relationship with the planet and their unease just might be an expression of deep-seated solastalgia about non-sustainability.”

²⁸ Wendell Berry and Helena Norberg-Hodge, “Caretaking,” *Orion* 37 no.4 (2019), 16-17. “One of the great tragedies has been this shift toward trusting secondhand knowledge more than we trust experiential knowledge, and in fact denigrating experiential knowledge as anecdotal and worthless.”

²⁹ ACRL Research Planning and Review Committee, “2010 Top Tend Trends in Academic Libraries: A Review of the Current Literature,” *C&RL News* 71, no.6 (2010), 286-287. “Collection development trends noted by survey respondents include the effect of Google Books on library

that diversity in library collections stems from regionalism that forms a “long tail” of unique and rare items and gives a distinct “flavor” to geographically distinctive collections (though ironically, the study advocates dismantling local collections into remote regional repositories).³⁰ A study of library acquisition patterns in academic institutions found a marked decrease in title-by-title purchases with less money spent for books from academic and small (i.e. regional) presses.³¹ Clifford Lynch calls current trends towards homogenization in scholarly communication a “serious crisis,” writing, “I think that academic and research libraries need to be spending a lot more time considering the changing nature of the scholarly record, the broader cultural record that underlies it that enables future scholarship, and how we can collectively exercise effective long-term stewardship over this.”³² Local information offers a solution to rebalance investment in collections, and Hickerson suggests, “Our archives and special collections remain our opportunity for playing a distinctive role in documenting culture, science, industry, government, and the human experience.”³³ It seems apparent that a single-minded pursuit of efficiency has resulted in widely replicated collections of so little value that they are being literally discarded. By contrast, in uncertain Anthropocenic times, the most valuable library collections have turned out to be unique materials curated to represent distinctive, localized interests.

Administrative decisions based on globalized assumptions can have unanticipated problems. In the 2000s, libraries began to set up online virtual reference desks for anytime, anyplace research help. In order to save money, these were often staffed by regional consortia since theoretically, librarians’ skill with reference interviews would suffice to handle any type of query. In practice, it quickly became obvious that remote staff were having difficulty with local question types.³⁴ The proportion of such questions is not negligible. A study of “geo-referenceable” location-based queries found

collections, the monopolization of content resulting from consolidation in the publishing industry and the demise of a number of smaller publishers and publications, and a growth in shared collection development.”

³⁰ Lorcan Dempsey et al., *Understanding the Collective Collection*, (Dublin, OH: OCLC Research, 2013), 187, <http://www.oclc.org>. A better word might be “terroir,” a French term that describes flavor derived from soil, climate and environmental conditions.

³¹ Katherine Daniel, Joseph J. Esposito, and Roger C. Schonfeld, *Library Acquisition Patterns* (New York: Ithaca S+R, 2019): doi: <https://doi.org/10.18665/sr.310937>.

³² Clifford A. Lynch, “Updating the Agenda for Academic Libraries and Scholarly Communications” *College & Research Libraries* 78, no. 2 (2017), 129.

³³ Hickerson, *Research Library Issues*, 5.

³⁴ Teresa U. Berry, Margaret M. Casado, and Lana Dixon, “The Local Nature of Digital Reference,” *The Southeastern Librarian* 51, no. 3 (2003): 5. “Defining ‘local’ posed one of the more difficult tasks of the study.”

that they made up just over half of all questions served by one remote service.³⁵ All-digital libraries are another type of library service that is purposefully detached from place. An interesting case study is BiblioTech, an all-digital public branch library in Texas described as "neither defined nor confined by physical space."³⁶ Yet on the website, the library's mission is expressed in explicitly geographical terms to, "Provide all Bexar County residents technology access to enhance education and literacy, promote reading as recreation, and equip all members of our community with necessary tools to thrive as citizens of the digital age."³⁷ Despite assigning patrons digital (i.e., globalized) citizenship, the website is nonetheless localized. Underneath a top layer of generic digital subscriptions are links to Texas-specific content including *Bexar County 300th Anniversary Digital Archives*, *Texas Author Project* and *Texas Reference Center*.³⁸ In terms of missing information, though, the limitations of the library's format restrictions are glaringly obvious. Where are Spanish language materials?³⁹ Tejano music? Edwards Plateau ecology? State and local politics? Or for that matter, border studies? In the paperless library, there is an observable disconnect between idealized "digital citizenship" and citizen engagement with the kinds of local issues that matter to daily life.

LIBRARIES IN PLACE

Libraries are particularly suited to the re-localization project due to professional ethics that support equity, diversity, social justice and inclusivity. Since the 2008 financial crisis, geographers have documented an unexpected unravelling in the seemingly unstoppable juggernaut of globalization.⁴⁰ A return to regionalism could lead to a renewed sense of place and belonging or it could foster a "new tribalism" that pulls regions into conflict and

³⁵ Bradley Wade Bishop, "Location-Based Questions and Local Knowledge," *Journal of the American Society for Information Science and Technology* 62, no. 8 (2011), 1594. "Despite digital reference's capability to provide anyplace, anytime question-answering service, proximity to local knowledge remains relevant."

³⁶ Laura Cole, "BiblioTech as the Re-Imagined Public Library: Where Will It Find You?" in *IFLA WLIC*, Columbus, (2016), 2, <http://library.ifla.org/1418>.

³⁷ *BiblioTech: Bexar County Digital Library*, accessed April 15, 2019, bexarbibliotech.org.

³⁸ The Texas Author Project is on the Biblioboard platform which allows self-published authors to deposit writing in an online library. Authors get "exposure" but do not get paid.

³⁹ Bexar County is 60.3% Hispanic or Latino. *U.S. Census QuickFacts*, accessed April 15, 2019, census.gov/quickfacts.

⁴⁰ Ivan Turok, David Bailey, Jennifer Clark, Jun Du, Ugo Fratesi, Michael Fritsch and John Harrison, "Global Reversal, Regional Revival?" *Regional Studies* 51, no.1 (2017): 1-8, doi 10.1080/00343404.2016.1255720. "Systematic analyses of how different territories are adapting to the unravelling of globalization and introducing more holistic and resilient strategies to cope with the turbulence are urgently needed."

social disintegration. The benefits of localism depend on strong democratic institutions, but the word “local” can also label some people as outsiders leading to prejudice, segregation, separatist movements, xenophobia, racism, nationalism, armed conflict and human-rights atrocities. Localism easily becomes politicized since open borders and globalism are considered an agenda of the political left, while the political right rallies around border security and nationalist patriotism. The word “local” is sometimes hijacked to determine whose voice counts and whose doesn’t. For instance, a review of national monuments conducted in 2017 by Interior Secretary Ryan Zinke characterized support for national monuments as “a well-orchestrated national campaign” while opposition to monument designation came from “local residents associated with industries such as grazing, timber production, mining, hunting and fishing and motorized recreation” (in Zinke’s summation, pro-monument Indigenous tribes were not included among the “locals”).⁴¹ None of this argues against re-localizing libraries. The pitfalls of controversial information are not new for librarians and archivists who know how to document an issue without picking sides.⁴²

The fact that the word “local” has no formal definition makes it particularly adaptable to inclusionary storytelling. As the writer Ellen Meloy said, “The best way to understand a strange place is by local knowledge. I don’t mean museum history or a litany of factoids or the cosmic metaphors in a zip code. I mean the lay of the land and the stories that describe it.”⁴³ In order to rebalance global and local information, Anthropocene librarians can conceptualize place as a node on a global network.⁴⁴ Mathematically, a node is an intersection, a point where a function can be evaluated. In information space, library-as-node implies a two-way relationship that can both receive and broadcast information. Libraries host digital nodes, but at the same time exist as physical nodes—like a road map with cities and towns as nodes connected by a network of highways, no place is entirely isolated. Geographic space is permeable by migrating people, birds, animals, seeds, invasive species; weather patterns that carry rain, hurricanes, tornadoes, radioactive fallout, smoke from volcanoes and wildfires; human impacts like money, automobile traffic, diseases, shipping containers loaded with consumer products, ideas and ideologies— anything that is not anchored. Things that stay

⁴¹ Ryan Zinke, *Memorandum for the President: Final Report Summarizing Findings of the Review of Designations Under the Antiquities Act*, (Washington, DC: U.S. Department of the Interior, 2017).

⁴² Karen M. Lamoree, "Documenting the Difficult or Collecting the Controversial," *Archival Issues* 20, no.2 (1995): 149-153.

⁴³ Ellen Meloy, *Seasons: Desert Sketches by Ellen Meloy* (Salt Lake City, UT: Torrey House Press, 2019),43-44.

⁴⁴ Buell et. al, *Annual Review of Environment and Resources*, 421. “Perceptions and experiences of environmental risk shared across borders emerged as conceptual hinges connecting local to transnational forms of inhabitation.”

give a place its character, as do things that recur in cycles like seasons, holidays and festivals, agricultural harvest, or elections. At the same time, the globalized flow of manufactured objects and disposable culture can overwhelm or obliterate regional differences, especially in a one-way relationship. This fluid map of place suggests not just a possibility for libraries to add local information into a global network but a responsibility to do so. There are environmental and human costs when locally adapted systems are colonized or replaced by industrialized systems. In an age of solastalgia, preservation of cultural heritage takes on new urgency. If the worst happens, library materials can become a basis for cultural restoration.⁴⁵

Much of the literature of librarianship is written by academic librarians who have a mandate to publish, and this contributes to a skewed vision that overvalues globalized scholarly information and stifles place-based thinking. In general, public libraries have done a far better job of supporting place-based resiliency than academic libraries.⁴⁶ Despite administrative talk about campus community, higher education is built around a globalized knowledge system with faculty hired from a diaspora of academics who seldom live or teach in the same places where they grew up. Despite programs for community engagement, institutions of higher education and the libraries that serve them can become detached from a sense of true belonging—the phrase “town and gown” expresses the disconnect. Yet the need for re-localization is just as urgent in academic settings. As one academic librarian writes, “I detest the future that e-books in academic libraries prefigure—a future where distance learning places face-to-face classes, and where student are taught to scorn the actual places in which they live and the people they live among in favor of joining a ‘global community.’”⁴⁷ Academic libraries exist in generic educational spaces described by one academic author as “a familiar geography of classrooms, restrooms, computer networks, and labs, where uncomfortable table-chairs and library shelves are an iconography recognizable around the world.”⁴⁸ The Association of Research Libraries (ACRL) includes “Library as Place” as one of three dimensions measured by the LibQual+ survey instrument, but with a narrow definition limited to facilities, furniture, noise levels and other physical features.⁴⁹ While this may make sense

⁴⁵ Manuela Andreoni and Ernesto Londono, “Loss from Brazil Fire Felt Like ‘New Genocide,’” *New York Times*, (September 14, 2018): <https://www.nytimes.com/2018/09/13/world/americas/brazil-museum-fire-indigenous.html>. “This is like a new genocide, as though they had slaughtered all these indigenous communities again,” Mr. Gajajara said. “Because that was where our memories resided.”

⁴⁶Shari R. Veil and Bradley Wade Bishop, “Opportunities and Challenges for Public Libraries to Enhance Community Resilience,” *Risk Analysis* 34, no.4 (2014): 721-734.

⁴⁷ Rachel King, “The Soul Selects Her Own Society,” *Dark Mountain* 4 (2013), 162.

⁴⁸ Kathleen Dean Moore and Erin E. Moore, “Six Kinds of Rain,” in *Placing the Academy* ed. Jennifer Sinor and Rona Kaufman (Logan, UT: Utah State University Press, 2007), 27.

⁴⁹ *LibQual+*, accessed April 22, 2019, <https://www.libqual.org/home>.

from a data perspective, it means that booksapes and informationscapes are not considered part of the academic library's place-based identity. Anthropocene librarians will need to look outside of mainstream thinking to find models to instill a sense of place in library collections. For instance, the Prelinger Library, a private library in San Francisco, is organized loosely around geographic concepts described as "a walk through landscape of ideas";⁵⁰ the Xwi7xwa library in British Columbia uses a geographic cataloging and classification system designed by an Indigenous librarian;⁵¹ the Center for Land Use Interpretation has a mission to document liminal "in between spaces" that are meant to be unseen;⁵² the Interference Archive in Brooklyn has made citizen engagement and activism a primary mission;⁵³ and in a particularly apt metaphor for the Anthropocene, various seed libraries preserve a record of mobile life that becomes rooted in place once it is planted and nourished.

In 1993, Wes Jackson described how universities separate students from their home communities even though he believes that solutions to both global and local problems need to happen at the level of community.⁵⁴ Jackson speculates, "there is no such thing as a 'homecoming' major. But what if the universities were to ask seriously what it would mean to have as our national goal becoming native in this place, this continent?"⁵⁵ Since then something like a homecoming major has emerged in the discipline of environmental humanities which is, broadly speaking, an interdisciplinary humanitarian response to the current environmental crisis. The inaugural essay in the journal *Environmental Humanities* describes the emerging discipline as "an effort to inhabit a difficult space of simultaneous critique and action." The editors explain, "the deepening environmental and social crises of our time are unfolding in this [contact] zone where the nature/culture divide collapses and the possibilities of life and death for

⁵⁰ *Prelinger Library*, accessed April 22, 2019, <http://www.prelingerlibrary.org/home/collection>.

⁵¹ Sydney Worth, "This Library Takes an Indigenous Approach to Categorizing Books," *Yes! Magazine* (March 22, 2019), <https://www.yesmagazine.org/peace-justice/decolonize-western-bias-indigenous-library-books-20190322>. "Canadian First Nations libraries organize information on Indigenous communities geographically according to region, [Sandy] Littletree said, reflecting a sense of place."

⁵² Center for Land Use Interpretation, <http://clui.org>; Matthew Coolidge and Sarah Simons, eds., *Overlook: Exploring the Internal Fringes of America with the Center for Land Use Interpretation* (New York, NY: Metropolis Books, 2006), 16-17. "The work of the Center is about humans and the land they inhabit and transform... As we stumble over the obvious, we ask ourselves, 'what is that thing anyway, and how did it get there?' The results are compiled, sorted, processed, and stored in our Land Use Database."

⁵³ Interference Archive, <http://interferencearchive.org>.

⁵⁴ Wes Jackson, *Becoming Native to this Place* (Lexington, KY: University Press of Kentucky, 1993), 3. Wes Jackson is a co-founder of The Land Institute in Salina, Kansas, <https://landinstitute.org>.

⁵⁵ Wes Jackson, *Becoming Native to this Place*.

everyone are at stake.”⁵⁶ Environmental humanities connects the dots between scholarly communication, humanities, cultural heritage, bioregion, and geographical space, and it translates jargon-filled scientific papers and government planning documents into essential storytelling.⁵⁷ For these reasons, the discipline offers an excellent model to help decide what kinds of resources are a priority for re-localized library collections. The reference lists in environmental humanities articles and dissertations have an unusual number of government publications (particularly land use plans), stakeholder websites, grey literature reports, articles from local newspapers and magazines, non-textual sources like maps and photographs, poetry and literature, and hyperlocal materials from citizen and student projects.⁵⁸

RE-LOCALIZED COLLECTIONS

In recent years, librarians have significantly engaged with principles of sustainability. The International Federation of Library Associations (IFLA) identifies libraries as key institutions to support the United Nations 2030 Agenda for Sustainable Development.⁵⁹ Librarians can use the seventeen goals as a framework to evaluate community-engaged library service even without formally adopting them. In 2019, the American Library Association adopted a triple-bottom-line definition of sustainability as a core value.⁶⁰ However, efforts for sustainability have not been firmly connected to re-localization in

⁵⁶ Deborah Bird Rose, et al. "Thinking Through the Environment, Unsettling the Humanities," *Environmental Humanities* 1, no.1 (2012), 2-3. "And so, we are required to re-imagine the proper questions and approaches of our fields." One of these fields can be library science.

⁵⁷ Buell et al., *Annual Review of Environment and Resources* (2011), 420. "A notable feature of ASLE [Association for Study of Literature and Environment] conferences has been the presence of contributions by both scholars and environmental writers and other creative types." The emerging field of sustainability science, on the other hand, mostly references conventional scholarly publication; Luís M.A. Bettencourt and Jasleen Kaur, "Evolution and Structure of Sustainability Science," *Proceedings of the National Academy of Sciences* 108 no.49 (2011): 19540-19545. This citation study found a miniscule number of humanities citations in sustainability science publications. Scientists can tell us the facts; it is up to someone else to tell the stories.

⁵⁸ Amy Brunvand, "Re-localizing the Library: An Environmental Humanities Model," *Libraries & Archives in the Anthropocene: A Colloquium* (New York University: May 13-14, 2017): <http://credo.library.umass.edu/view/full/mums1010-s05-i001>.

⁵⁹ *Libraries, Development and the United Nations 2030 Agenda*, <https://www.ifla.org/libraries-development>.

⁶⁰ *Resolution for the Adoption of Sustainability as a Core Value of Librarianship*, ALA Midwinter Meeting, ALA CD#37 (2019), <http://www.ala.org/aboutala/midwinter-and-annual-2019>.

reference, information literacy and collections. The types of materials that inform a research strategy for local issues are often treated as secondary.

Government publications not only inform citizen engagement, they are often the most detailed resource available for land use history and wildlife management. These publications are typically held in open-access digital archives maintained by various levels of federal, state, and local government (as of 2014, the Federal Depository Library Program [FDLP] no longer requires participating libraries to select any tangible resources at all.)⁶¹ Because online government information is managed remotely with reference assistance as the main library role, many academic libraries have disbanded their FDLP depositories leaving public libraries to guarantee ongoing access and assistance for government information.⁶² Unfortunately, librarian disengagement with digital government information has resulted in a lack of oversight at a time when citizen engagement is critical. Government science that contradicts political ideology has been suppressed, altered, censored, distorted, or manipulated, necessitating emergency data rescue projects.⁶³ The pitfalls of government information argue for re-localized librarian involvement, and particularly for libraries to teach civics.⁶⁴ A promising trend is the appearance of job ads for “civic engagement librarians” who can help inform citizens about elections and opportunities for stakeholder involvement and public input and connect people with public services.⁶⁵

Newspapers are another core source for a localized information, often handy as an entry point to discover government information. Small-market newspapers serve as

⁶¹ Federal Depository Library Program, *Legal Requirements and Program Regulations of the Federal Depository Library Program*, (Washington, D.C.; U.S. Government Publishing Office, 2018).

⁶² Paul T. Jaeger and John Carlo Bertot, "Responsibility Rolls Down: Public Libraries and the Social and Policy Obligations of Ensuring Access to e-Government and Government Information." *Public Library Quarterly* 30, no. 2 (2011): 91-116.

⁶³ Union of Concerned Scientists, Scientific Integrity, <https://www.ucsusa.org/our-work/center-science-and-democracy/promoting-scientific-integrity>.

⁶⁴ Amy Brunvand and Ambra Gagliardi, "Sustainability, Re-localization, Citizen Activism and Government Information," *Dttp: Documents to the People* 43, no.2 (2015), 10-13; Nancy Kranich, "Libraries and Civic Engagement" in *Library and Book Trade Almanac* (2012): 75-97; René Critcher Lyons, *Teaching Civics in the Library* (Jefferson, NC: McFarland, 2015).

⁶⁵ Katherine Paterson, "Digital-Only Depository Libraries: The Triumphs and the Challenges," (presentation at DLC 2019, April 2019) <https://www.fdlp.gov/file-repository/outreach/events/depository-library-councilbe-dlc-meetings/2019-meeting-proceedings/2019-dlc-spring-virtual-meeting>. In this panel, Paterson discusses the formation of a Civic Engagement Librarian position at Loyola University. See also: Urban Libraries Council, *Leadership Brief: Libraries Leading Civic Engagement*, (n.d.) https://www.urbanlibraries.org/assets/ULC_Leadership_Brief_Libraries_Leading_Civic_Engagement.pdf. This brief "highlights the essential roles public libraries play in advancing civic engagement."

political watchdogs, create community attachment, and are a foundation of entire media ecosystems since reports on television, radio and online news often originate in print media.⁶⁶ Newspapers are a particularly important source of information about local government, land use planning and arts and culture.⁶⁷ Unfortunately for democracy, news deserts are expanding and the consolidation of newspaper ownership has led to gutted newsrooms.⁶⁸ Online advertising gobbles up revenue that used to pay writers and journalists. There is no substitute for old-fashioned reporting. The idea that “transparency is the new objectivity” did not pan out.⁶⁹ In the absence of newspapers, pseudo-journalists at think-tanks are paid by billionaires to crank out ideological disinformation passed off as “news.”⁷⁰ Library database subscriptions pay for technological access that does little to help fund journalism. Likewise, database aggregators tend to exclude small-market newspapers and magazines. Some libraries have been trying to fill in the local news gap with blogs, information centers, newsletters and issue hubs.⁷¹ However, it’s not a perfect match. Librarians are experts at fact-checking, but unlike journalists they can’t drop everything to cover a breaking story.

While local newspapers are in decline, born-digital grey literature is on the rise. Stakeholders for local issues write reports that become an essential part of the local story, often responding to and interpreting government action in order to create change

⁶⁶ Damian Radcliffe and Christopher Ali, *Local News in a Digital World: Small-Market Newspapers in the Digital Age*. Tow Center for Digital Journalism (November 2017):

<https://academiccommons.columbia.edu/doi/10.7916/D8WS95VQ>.

⁶⁷ Tom Rosenstiel, Amy Mitchell, Kristen Purcell and Lee Rainie. “How People Learn About Their Local Community.” Pew Research Center, September 26, 2011.

<https://www.pewinternet.org/2011/09/26/how-people-learn-about-their-local-community/>.

⁶⁸ Penelope Muse Abernathy, *The Expanding News Desert* (Chapel Hill, NC: UNC Center for Innovation and Sustainability in Local Media, 2018): <https://www.usnewsdeserts.com>.

⁶⁹ David Weinberger, “Transparency: The New Objectivity,” *KM World*, August 28, 2009, <http://www.kmworld.com/Articles/Column/David-Weinberger/Transparency-the-new-objectivity-55785.aspx>. Weinberger is a co-author of a 1999 website called *The Cluetrain Manifesto* (1999), <http://www.cluetrain.com>. *The Cluetrain Manifesto* published as a bestselling book that describes a fanciful, unrealized vision of a democratized new economy, supposedly enabled by an open Internet.

⁷⁰ Robert J. Brulle, “Institutionalizing Delay: Foundation Funding and the Creation of US Climate Change Counter-Movement Organizations.” *Climatic Change* 122 no. 4 (2014): 681-694.

⁷¹ Chris LeBeau, “From the President of RUSA: Libraries and Local News: Expanding Journalism, Another User Service Grounded in Reference” *Reference & User Services Quarterly* 57, no. 4 (2018): 234-237. “the web has changed our news-gathering habits, but primarily for national news, and what we don’t know on the local level can come back to bite us;” David Beard, “The Libraries Bringing Small-Town News Back to Life,” *The Atlantic*, (January 28, 2018): <https://www.theatlantic.com/technology/archive/2018/01/libraries-local-news/551594/>. “In the age of Google, the hardest information to find is local.”

through citizen activism.⁷² These groups may even commission community-specific alternatives to government planning or business-as-usual. Yet for all that it is accessible online, grey literature is still grey as far as library preservation and discovery.⁷³ In the context of higher education, activist grey literature often takes the form of reports on student projects from seminars that treat the campus as a living laboratory. Since student projects are not typically archived in libraries, The American Library Association Sustainability Round Table (SustainRT) together with Disciplinary Associations Network for Sustainability (DANS) have called on academic librarians and faculty to facilitate discovery, dissemination and preservation of student sustainability projects.⁷⁴ Copyright issues and lack of standardized procedures prevent libraries from absorbing born-digital publications directly into digital archives so that such materials tend to require intensive individual processing. In the absence of collection policies for born-digital grey literature there is a temptation for librarians to simply scrape websites and let researchers fish through the detritus.⁷⁵ Local citizen engagement becomes obscured in an overwhelm of digital clutter. Large-scale digital scanning projects like Google Books or Hathi Trust rely on hard copies as a starting point. For the sake of efficiency, neither project scanned oversized map supplements or foldouts so that the missing information in both collections is specifically geographic information.⁷⁶

Culture has been called the “fourth pillar of sustainability” since it encompasses social capital, civic engagement, and environmental stewardship.⁷⁷ While cultural

⁷² Brian Keough and Amy C. Schindler. "Thinking Globally, Acting Locally: Documenting Environmental Activism in New York State," *Archival Issues* 28, no.2 (2003): 121-135.

⁷³ Dominic Farace and Joachim Schöpfel eds., *Grey Literature in Library and Information Studies* (Munich, Germany: KG Saur, 2017), 72. “The increased presence of grey literature on the web should not keep us from being actively engaged in the traditional activities of collection, archiving, and dissemination.”

⁷⁴ *DANS Call to Action*, dans.aashe.org.

⁷⁵ Nora Caplan-Bricker, “Preservation Acts: Toward an Ethical Archive of the Web,” *Harper’s* (December 2018): 61-65. <https://harpers.org/archive/2018/12/preservation-acts-archiving-twitter-social-media-movements/>.

⁷⁶ Hathi Trust Digital Library, “Types of Problems and Outlook for Correction,” <https://www.hathitrust.org/quality-in-hathitrust> (accessed May 30, 2019). “Foldouts may be scanned while folded, causing much or all of the content to be inaccessible. This is a common practice in large-scale digitization due to goals for high throughput;” Michele Seikel and Thomas Steele, “What’s Missing from Google Books?” *International Journal of Information Research* 1, no. 1 (2011): 1-6.

⁷⁷ UN Systems Task Team on the Post-2015 UN Development Agenda, *Culture: A Driver and an Enabler of Sustainable Development: Thematic Think Piece* (UNESCO, May 2012): 5, [https://www.un.org/millenniumgoals/pdf/Think Pieces/2_culture.pdf](https://www.un.org/millenniumgoals/pdf/Think%20Pieces/2_culture.pdf). “The failure of well-intentioned development programmes, and the gaps in achieving the MDGs, revealed the

sustainability has become a central concern for institutions such as museums, libraries have been slower to engage with the broader cultural record.⁷⁸ In the Anthropocene, Indigenous knowledge in particular is seen as an antidote to the most destructive forces of globalization.⁷⁹ However, collecting Indigenous knowledge presents specific ethical and practical difficulties.⁸⁰ When oral traditions are translated to text it is most often through interpreters who come from other cultures. There are complex considerations of cultural sensitivity and ownership of intellectual property. When Indigenous knowledge is located in special collections, it can make living cultures seem like past history. Anthropocene libraries also have a role to play supporting local literary culture since literary writing and poetry tells the story of place. Literary writing becomes missing information when it is self-published, published in small literary journals or published by small presses.⁸¹ Involvement in cultural sustainability could put librarians in unconventional roles. For instance, as guardians of a third-place community, Anthropocene librarians could act as spiritual healers confronting the grief of solastalgia, perhaps by hosting rituals developed by environmental healers like Joanna Macy or Trebbe Johnson.⁸²

THE ONCE AND FUTURE LIBRARY

When libraries buy into a story that their core function is providing access to a globalized digital data set, they are essentially enacting business-as-usual, but in the Anthropocene, business-as-usual is a story of collapse. The intentional corruption of information has

inadequacy of universal policies and approaches to development regardless of cultural context.”

⁷⁸ Kirsten Loach, Jennifer Rowley, and Jillian Griffiths, "Cultural Sustainability as a Strategy for the Survival of Museums and Libraries," *International Journal of Cultural Policy* 23, no.2 (2017), 195. "This would seem especially necessary within the library sector, where the role of organizations in sustaining culture is often not as immediately discernible as it is in museums, and has consequently remained comparatively underexplored."

⁷⁹ Giorgia Magni, "Indigenous Knowledge and Implications for the Sustainable Development Agenda," *European Journal of Education* 52, no. 4 (2017): 437-447.

⁸⁰ Jane Anderson, "Access and Control of Indigenous Knowledge in Libraries and Archives: Ownership and Future Use," in *Conference Proceedings for Correcting Course: Rebalancing Copyright for Libraries in the National and International Arena* (American Library Association, The MacArthur Foundation, and Columbia University, New York, 2005); Loriene Roy, "Indigenous Cultural Heritage Preservation: A Review Essay with Ideas For the Future," *IFLA Journal* 41, no. 3 (2015): 192-203.

⁸¹ Maggie Anderson, ed. *Literary Publishing in the Twenty-First Century* (Minneapolis, MN: Milkweed Editions, 2016).

⁸² Joanna Macy, and Chris Johnstone, *Active Hope* (Novato, CA: New World Library, 2012); Trebbe Johnson, *Radical Joy for Hard Times* (Berkeley, CA: North Atlantic Books, 2018).

become an existential threat to human existence; the digital age has ushered in authoritarianism, fake news, social-media propaganda, digital monopolies, news deserts, alienation from the natural world, and missing information. The reversal of hyper-globalization presents a threat of widespread social breakdown but also a possibility for people to re-engage with the places they live, and this possibility offers librarians a counter-narrative to one of cultural irrelevance in a digital age. The humanist work of the Anthropocene is witness, resistance and renewal in order to tell alternative stories about what it means to be human and what is worth trying to save. Librarians are ideally situated to this work. Libraries exist as a decentralized network of physical places with responsibility to geographically dispersed communities; they have a mandate to preserve cultural knowledge; and the profession of librarianship has a strong professional ethic of inclusivity. Libraries are also potent metaphors with collections that record an evolving story about a particular community—what it values and what it discards, what it cultivates and what it weeds.⁸³

The foundations of librarianship in the Anthropocene are already laid in regional and local special collections, and in movements within librarianship that place importance on community resilience, cultural diversity and sustainability. The literature of librarianship includes place-based observations, but they are often dismissed as secondary to the main point. Still, it is no coincidence that Bill McKibben was engaged in climate change research when he characterized the Anthropocene as missing place-based information. Re-localization is widely seen as an antidote to globalized problems. As curators and creators of information, librarians have a major role to play in this restorative project. The problem is to connect the dots. Librarians have been slow to engage with scholarly trends in place/time thinking and have yet to recognize cultural sustainability as a core mission. The profession needs to develop better policies for collection, discovery, and community use of local materials. Once upon a time, starry-eyed futurists believed that utopia would be built on anytime, anyplace access to digital information. In the Anthropocene, community centered, place-based physical libraries may turn out to be the key to a livable future.

⁸³ David Quammen, "Planet of Weeds," *Harper's* 275, no. 10 (1998): 57-69. Characterized the Anthropocene as filled with weedy species that thrive in human-created environments; Richard Mabey, *Weeds* (New York: HarperCollins, 2010) points out that weeds serve a critical function to "green over the dereliction we have created...although they follow and are dependent on human activities, their cussedness and refusal to play by our rules makes them subversive, and the very essence of wildness."

BIBLIOGRAPHY

- Abernathy, Penelope Muse. *The Expanding News Desert*. Chapel Hill, NC: UNC Center for Innovation and Sustainability in Local Media, 2018.
<https://www.usnewsdeserts.com>.
- ACRL Research Planning and Review Committee. "2010 Top Tend Trends in Academic Libraries: A Review of the Current Literature." *C&RL News* 71, no.6 (2010): 286-292.
- Albrecht, Glenn. "Solastalgia: A New Concept in Health and Identity." *PAN: Philosophy Activism Nature* 3 (2005): 41-55.
- Anderson, Jane. "Access and Control of Indigenous Knowledge in Libraries and Archives: Ownership and Future Use." In *Conference Proceedings for Correcting Course: Rebalancing Copyright for Libraries in the National and International Arena*. American Library Association, The MacArthur Foundation, and Columbia University, New York. 2005.
- Anderson, Maggie. Travis Kurowski, Wayne Miller, and Kevin Prufer, eds. *Literary Publishing in the Twenty-First Century*. Minneapolis, MN: Milkweed Editions, 2016.
- Andreoni, Manuela and Ernesto Londono. "Loss from Brazil Fire Felt Like 'New Genocide.'" *The New York Times*, September 14, 2018.
<https://www.nytimes.com/2018/09/13/world/americas/brazil-museum-fire-indigenous.html>.
- Beard, David. "The Libraries Bringing Small-Town News Back to Life." *Atlantic*, January 28, 2018. <https://www.theatlantic.com/technology/archive/2018/01/libraries-local-news/551594/>.
- Berry, Teresa U., Margaret M. Casado, and Lana Dixon. "The Local Nature of Digital Reference." *The Southeastern Librarian* 51, no.3 (2003): Article 5.
<https://digitalcommons.kennesaw.edu/seln/vol51/iss3/5>.
- Berry, Wendell and Helena Norberg-Hodge. "Caretaking." *Orion* 37, no.4 (2019): 16-17.
- Bettencourt, Luís M.A. and Jasleen Kaur. "Evolution and Structure of Sustainability Science." *Proceedings of the National Academy of Sciences* 108, no. 49 (2011): 19540-19545.
- Bishop, Bradley Wade. "Location-Based Questions and Local Knowledge." *Journal of the Association for Information Science and Technology* 62, no.8 (2011): 1594-1603.
- Bonnett, Alastair. *Unruly Places: Lost Spaces, Secret Cities, and Other Inscrutable Geographies*. Boston, MA: Houghton Mifflin Harcourt, 2014.

- Branin, Joseph, Frances Groen, and Suzanne Thorin. "The Changing Nature of Collection Management in Research Libraries." *Library Resources & Technical Services* 44, no.1 (2011): 23-32.
- Brulle, Robert J. "Institutionalizing Delay: Foundation Funding and the Creation of US Climate Change Counter-Movement Organizations." *Climatic Change* 122, no.4 (2014): 681-694.
- Bruner, Jerome. "The Narrative Construction of Reality." *Critical Inquiry* 18, no.1 (1991): 1-21.
- Buell, Lawrence, Ursula K. Heise, and Karen Thornber. "Literature and Environment." *Annual Review of Environment and Resources* 36 (2011): 417-440.
- Butler, Paul, Kevin Green, and Dale Galvin. *The Principles of Pride: The Science Behind the Mascots*. (Arlington, VA: Rare, 2013).
- Brunvand, Amy. "Re-localizing the Library: An Environmental Humanities Model," In *Libraries & Archives in the Anthropocene: A Colloquium*, New York University, May 13-14, 2017. <http://credo.library.umass.edu/view/full/mums1010-s05-i001>.
- Brunvand, Amy and Ambra Gagliardi. "Sustainability, Re-Localization, Citizen Activism and Government Information." *Dttp: Documents to the People* 43, no.2 (2015): 10-13.
- Caplan-Bricker, Nora. "Preservation Acts: Toward an Ethical Archive of the Web," *Harper's* (December 2018). <https://harpers.org/archive/2018/12/preservation-acts-archiving-twitter-social-media-movements/>.
- Cole, Laura. "BiblioTech as the Re-Imagined Public Library: Where Will it find You?" In *IFLA WLIC Columbus*, 2016. <http://library.ifla.org/1418>.
- Coolidge, Matthew and Sarah Simons, eds. *Overlook: Exploring the Internal Fringes of America with the Center for Land Use Interpretation*. New York, NY: Metropolis Books, 2006.
- Dahlstrom, Michael F. "Using Narratives and Storytelling to Communicate Science with Nonexpert Audiences." *Proceedings of the National Academy of Sciences* 111, Supplement 4 (2014): 13614-13620.
- Daniel, Katherine, Joseph J. Esposito, and Roger C. Schonfeld. *Library Acquisition Patterns*. New York: Ithaca S+R, 2019. <https://doi.org/10.18665/sr.310937>.

- Dempsey, Lorcan, Brian Lavoie, Constance Malpas, Lynn Silipigni Connaway, Roger C. Schonfeld, JD Shipengrover, and Günter Waibel. *Understanding the Collective Collection: Towards a System-wide Perspective on Library Print Collections*. (Dublin, OH: OCLC Research, 2013). <http://www.oclc.org>.
- Downey, Greg. "Human Geography and Information Studies." *Annual Review of Information Science and Technology* 41, no.1 (2007): 683-727.
- Farace, Dominic, and Joachim Schöpfel eds. *Grey Literature in Library and Information Studies*. Munich, Germany: KG Saur, 2017.
- Featherstone, Robin M., Becky J. Lyon, and Angela B. Ruffin. "Library Roles in Disaster Response: An Oral History Project by the National Library of Medicine." *Journal of the Medical Library Association: JMLA* 96, no.4 (2008): 343-350. <https://dx.doi.org/10.3163/1536-5050.96.4.009>.
- Gifford, Robert. "Environmental Psychology Matters." *Annual Review of Psychology* 65 (2014): 541-579.
- Hickerson, H. Thomas. "Rebalancing the Investment in Collections." *Research Library Issues: A Bimonthly Report from ARL, CNI, and SPARC*, no. 277 (December 2011): 1-8. <http://publications.arl.org/rli277/>.
- Intergovernmental Panel on Climate Change Core Writing Team, *Climate Change 2014: Synthesis Report* (Geneva, Switzerland: IPCC, 2015): <https://www.ipcc.ch>.
- International Federation of Library Associations. *IFLA Statement on Libraries and Development*. IFLA, August 2013. <https://www.ifla.org/publications/ifla-statement-on-libraries-and-development>.
- Jackson, Wes. *Becoming Native to This Place*. Lexington, KY: University Press of Kentucky, 1993.
- Jaeger Paul T. and John Carlo Bertot. "Responsibility Rolls Down: Public libraries and the Social and Policy Obligations of Ensuring Access to e-Government and Government Information." *Public Library Quarterly* 30, no.2 (2011): 91-116.
- Johnson, Trebbe. *Radical Joy for Hard Times: Finding Meaning and Making Beauty in Earth's Broken Places*. Berkeley: North Atlantic Books, 2018.
- Keough, Brian and Amy C. Schindler. "Thinking Globally, Acting Locally: Documenting Environmental Activism in New York State." *Archival Issues* 28, no.2 (2003): 121-135.
- King, Rachel. "The Soul Selects Her Own Society." *Dark Mountain* 4 (2013): 158-165.

- Kingsnorth, Paul and Dougald Hine. *Uncivilisation: The Dark Mountain Manifesto*. Croydon: Dark Mountain Project, 2009. <http://darkmountain.net/about/manifesto>.
- Klinenberg, Eric. *Palaces for the People: How Social Infrastructure Can Help Fight Inequality, Polarization, and the Decline of Civic Life*. New York, NY: Crown, 2018.
- Kranich, Nancy. "Libraries and Civic Engagement." *Library and Book Trade Almanac, 2012* (2012): 75-97.
- Kunstler, James Howard. *The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape*. New York, NY: Simon and Schuster, 1994.
- Lamoree, Karen M. "Documenting the Difficult or Collecting the Controversial." *Archival Issues* 20, no.2 (1995): 149-153.
- LeBeau, Chris. "From the President of RUSA: Libraries and Local News: Expanding Journalism, Another User Service Grounded in Reference." *Reference & User Services Quarterly* 57, no.4 (2018): 234-237.
- Levine, Rick, Christopher Locke, Doc Searls, David Weinberger. *The Cluetrain Manifesto*. New York: Basic Books, 2009.
- Loach, Kirsten, Jennifer Rowley, and Jillian Griffiths. "Cultural Sustainability as a Strategy for the Survival of Museums and Libraries." *International Journal of Cultural Policy* 23, no.2 (2017): 186-198.
- Lynch, Clifford. "Updating the Agenda for Academic Libraries and Scholarly Communications." *College & Research Libraries* 78, no.2 (2017): 126-130.
- Lyons, René Critcher. *Teaching Civics in the Library: An Instructional and Historical Guide for School and Public Librarians*. Jefferson, NC: McFarland, 2015.
- Mabey, Richard. *Weeds: In Defense of Nature's Most Unloved Plants*. New York, NY: HarperCollins, 2010.
- Macy, Joanna, and Chris Johnstone. *Active Hope: How to Face the Mess We're in Without Going Crazy*. Novato, CA: New World Library, 2012.
- Magni, Giorgia. "Indigenous Knowledge and Implications for the Sustainable Development Agenda." *European Journal of Education* 52, no.4 (2017): 437-447.
- Masterson, Vanessa A., Richard C. Stedman, Johan Enqvist, Maria Tengö, Matteo Giusti, Darin Wahl, and Uno Svedin. "The Contribution of Sense of Place to Social-Ecological Systems Research: A Review and Research Agenda." *Ecology and Society* 22, no.1 (2017): <https://doi.org/10.5751/ES-08872-220149>.
- McKibben, Bill. *The Age of Missing Information*. New York: Random House, 1992.

- . *The End of Nature*. New York: Random House, 1989.
- Meloy, Ellen. *Seasons: Desert Sketches by Ellen Meloy*. Salt Lake City, Ut: Torrey House Press, 2019: 43-44.
- Nakata, Martin. "Indigenous Knowledge and the Cultural Interface: Underlying Issues at the Intersection of Knowledge and Information Systems." *IFLA Journal* 28, no.5-6 (2002): 281-291.
- Nicholson, Karen Patricia. "On the Space/Time of Information Literacy, Higher Education, and the Global Knowledge Economy." *Journal of Critical Library and Information Studies* 2, no.1 (2018). <https://doi.org/10.24242/jclis.v2i1.86>.
- Oldenburg, Ray. *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community*. Cambridge, MA: Da Capo Press, 1999.
- Paterson, Katherine. "Digital-Only Depository Libraries: The Triumphs and the Challenges." Paper presented at DLC 2019 Spring Virtual Meeting, April 15-17, 2019. <https://www.fdlp.gov/file-repository/outreach/events/depository-library-councilbe-dlc-meetings/2019-meeting-proceedings/2019-dlc-spring-virtual-meeting>
- Pyle, Robert Michael. "No Child Left Inside: Nature Study as a Radical Act." In *Place-Based Education in the Global Age*, edited by David Gruenewald, David and Gregory Smith, 155-172. Mahwah, NJ: Lawrence Erlbaum Associates, 2007.
- Quammen, David. "Planet of Weeds." *Harper's* 275, no.10 (1998): 57-69.
- Radcliffe, Damian and Christopher Ali. *Local News in a Digital World: Small-Market Newspapers in the Digital Age*. Tow Center for Digital Journalism, November 2017. <https://academiccommons.columbia.edu/doi/10.7916/D8WS95VQ>.
- Rose, Deborah Bird, et al. "Thinking Through the Environment, Unsettling the Humanities." *Environmental Humanities* 1, no.1 (2012): 1-5.
- Rosenstiel, Tom, Amy Mitchell, Kristen Purcell and Lee Rainie. "How People Learn About Their Local Community." Pew Research Center, September 26, 2011. <https://www.pewinternet.org/2011/09/26/how-people-learn-about-their-local-community/>.
- Roy, Loriene. "Indigenous Cultural Heritage Preservation: A Review Essay with Ideas for the Future." *IFLA Journal* 41, no.3 (2015): 192-203.
- Science and Security Board. "It is Now Two Minutes to Midnight: 2018 Doomsday Clock Statement." *Bulletin of the Atomic Scientists* (2018). https://thebulletin.org/sites/default/files/2018_Doomsday_Clock_Statement.pdf

- Seikel, Michele, and Thomas Steele. "What's Missing from Google Books?" *International Journal of Information Research* 1, no. 1 (2011): 1-6.
- Sinor, Jennifer and Rona Kaufman, eds. *Placing the Academy: Essays on Landscape, Work, and Identity*. Logan, UT: Utah State University Press, 2007.
- Solnit, Rebecca. *The Faraway Nearby*. New York, NY: Viking Penguin, 2014.
- Task Force on the Future of Libraries. *Institute-Wide Task Force on the Future of Libraries: Preliminary Report*. Cambridge, MA: Massachusetts Institute of Technology, 2016. <https://future-of-libraries.mit.edu>
- Turok, Ivan, David Bailey, Jennifer Clark, Jun Du, Ugo Fratesi, Michael Fritsch and John Harrison. "Global Reversal, Regional Revival?" *Regional Studies* 51, no.1 (2017): 1-8. <https://doi.org/10.1080/00343404.2016.1255720>.
- United Nations Systems Task Team on the Post-2015 UN Development Agenda. "Culture: A Driver and an Enabler of Sustainable Development: Thematic Think Piece." UNESCO, May 2012. [un.org/millenniumgoals/pdf/Think Pieces/ 2_culture.pdf](http://un.org/millenniumgoals/pdf/Think%20Pieces/2_culture.pdf).
- Urban Libraries Council. *Leadership Brief: Libraries Leading Civic Engagement*. (n.d.). https://www.urbanlibraries.org/assets/ULC_Leadership_Brief_Libraries_Leading_Civic_Engagement.pdf
- Weinberger, David. "Transparency: The New Objectivity." *KM World*. August 28, 2009. <http://www.kmworld.com/Articles/Column/David-Weinberger/Transparency-the-new-objectivity-55785.aspx>.
- Worth, Sydney. "This Library Takes an Indigenous Approach to Categorizing Books," *Yes! Magazine*, March 22, 2019. <https://www.yesmagazine.org/peace-justice/decolonize-western-bias-indigenous-library-books-20190322>.
- Veil, Shari R. and Bradley Wade Bishop. "Opportunities and Challenges for Public Libraries to Enhance Community Resilience." *Risk Analysis* 34, no.4 (2014): 721-734.
- Zinke, Ryan. *Memorandum for the President: Final Report Summarizing Findings of the Review of Designations Under the Antiquities Act*. Washington, DC: U.S. Department of the Interior, 2017.