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The Library as a Hybrid Building: New Forms and Complex Programmes

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Abstract: Libraries are evolving in response to a multitude of influences and they are increasingly becoming hybrid buildings. Their traditional functions - to store and lend books and provide areas in which to read - are being combined with other roles. Within their walls, diverse programmes of activities are being created which reflect increasing complexity in society and culture. This paper discusses the hybridization of libraries and explores the impact it might have on their traditional role as an important civic landmark. The methodology makes reference to a broad church of research on library design. Whilst it is generally accepted that libraries must adapt in the context of digital cultures, some have cautioned over libraries becoming "mongrel" buildings. How might this diverging role of libraries undermine their identity and what they symbolise? Particular reference is made to theoretical library projects designed by architecture students attending a UK university, which have explored what potential roles libraries might play in the future, as well as built projects. The paper will advance understanding about the ways in which libraries might evolve, what forms they might take in the future, and what the impact of hybrid programmes might be on their identity as civic buildings.

Keywords: Libraries, Design, Future Directions

Introduction – What is the “Hybrid Library”?

It has been almost two decades since the term “hybrid library” was first utilized to describe the blending of physical and virtual collections and the creation of an environment for both real and digital library spaces (Oppenheim and Smithson 1999, 98). Since then, pessimistic predictions about the demise of the physical library have proven largely unfounded (Demas 2005, 27; Pawley 1998). As was foreseen by many others, the need for libraries as buildings has remained (Rusbridge 1998). Far from undermining libraries, increasing accessibility to vast reserves of digital information has in fact galvanized the need for such physical places (Prizeman 2011, 84; Frischer 2005, 50).

However, as libraries continue to transform from repositories into experiential buildings, the debate which began twenty years ago over what physical libraries “will be” remains (Talvé 2011). There is much reason to discuss the future of the physical library and what the “library as a place” will become as it evolves in response to a multitude of influences including funding pressures and content digitization (Outerbridge and Assefa 2011).

In this paper the term “hybrid” is used in a broader sense than when the debate began in the 1990s. Then it simply referred to something composed of physical and digital elements, whereas here the term has been broadened to take account of the variety of ways physical spaces in libraries are changing to embrace more diverse programmes, functions and activities.

This paper discusses the issues and opportunities hybrid programmes offer and the impact they could have on the unique identity libraries have as important civic landmarks in the urban landscape of towns and cities. Could the diversification of their role, purpose and location undermine their identity? Evolution might be critical to the library’s survival but at what cost? Examples of built and

theoretical projects are used to illustrate the discussion and reference is also made to historical “hybrid buildings” that themselves suggest new concepts for the libraries of the future.

The Influence of Digitization

As digital and physical content has become blended in both public and academic libraries, the spaces inside them have already changed dramatically. Traditional reading rooms have been joined by digital working spaces and more informal places to study, contemplate, gather and converse (Roth 2011, 6). Libraries are increasingly becoming “a living room” for the neighbourhoods and academic communities they serve (Jochumsen et al. 2012, 592).

A study of public library use in Norway (Aabo and Audunson 2012) revealed the majority of visitors did not come to borrow or return books but used the place as a public space for a wealth of other activities, and as a pluralistic “meta-meeting” place. In academic libraries – where general collection circulation has dropped by almost a third and reference requests have more than halved over ten years (Attis 2013, 12) – the move toward group and collaborative learning (driven in part by increased use of virtual learning platforms) has resulted in a rich tapestry of different spaces to support these social pedagogic methods (Demas 2005, 26).

As more content is presented digitally, the spaces inside the library are freed to embrace other roles (Aspenson et al. 2011, 12; Edwards 2009, xiii). Frischer (2005, 52) argues that the architectural space of the library should express its main advantage over the Internet – the power of community building. The functions of the library have changed significantly and this paper takes the concept of the library as a hybrid building further, proposing more complex programmes for the spaces within.

“Trans-programming” – the Library of Multiple Programmes

As information shifts to digital sources and books stacks become a less prominent feature, what might step in to replace them or sit alongside those that remain? In addition to the serried ranks of monitors in digital reading rooms, the library could become fused with other uses – civic or otherwise. The library as a place of multiple activities and programmes is not new (Worpole 2004, 8), but the increasing pace of digitization and cultural diversification is facilitating more radical approaches.

The French architect Bernard Tschumi developed a concept called “Transprogramming.” He suggested combining the individual spatial requirements of programmes for different buildings, irrespective of what might appear to be potential incompatibilities, so that they might mutually benefit from each other. In his 1989 competition proposal for the Library of France in Paris, Tschumi suggested the complexity of the demands on the library – on both real and virtual environments – prompted the possibility that other functions might merge and cross-fertilise. He argued that libraries are not static entities and proposed a running track as part of the complex, providing for both mental and physical exercise (Tschumi 1994, 329).

“Trans-programming” positions the library in the context of multiple programmes that collectively reflect the complexity and pluralism of wider society. Again the idea is not new; in the Middle Ages libraries were part of monasteries, one function amongst many. Perhaps the libraries of the future will become one element among an assortment of functions.

The contemporary trend to diversify the programmes of public libraries was explored through the Idea Store projects in London, the first of which opened in 2002. As well as library services, they offer a wide range of adult learning courses, an extensive programme of activities and events and a range of support services from employment to legal advice (Sudjic 2004). By broadening their programme, and therefore their appeal, visitor numbers increased four-fold (Lane 2003). Few would argue with the impressive rise in public engagement but by expanding the programme in relatively conventional ways an opportunity may have been missed to broaden the appeal of the library even further.

Arguably libraries are moving away from content and towards “experience” as they increasingly become spaces about the people they hope to engage with (Aspenson et al. 2011, 7). The music industry presents an interesting parallel in that the digitization of books is following the pattern of the digitization of music. Physical music sales have fallen sharply as people access music online, but this has in turn prompted greater emphasis on the experience of live performances. Similarly, as the importance of physical content declines, the library “experience” becomes increasingly relevant. This begs the question, what should these experiences be?

Outerbridge and Assefa (2011) suggest that visitors come to libraries less for information and more for the experience of discovery, and that the more types of experience library spaces offer the greater the opportunity for people to interact. The programmatic diversity of the hybrid library offers a model through which to nurture the richness of those experiences. Frischer (2005, 52) argues that library design must encourage all equally – it must be democratic in its appeal to its users. The programmatic hybrid model also offers the opportunity to broaden the appeal of the library across an increasingly complex society and culture.

A Hybrid of Different Libraries

The Hive in Worcester, UK, explores an interesting approach to a hybrid library. Traditionally, public and university libraries have been separate entities – not least due to both their differing clientele and funding sources. However Worcester County Council found its existing public library unfit for purpose at around the same time the University of Worcester was seeking to develop its learning resource facilities on a new campus at the edge of the city centre, and so an unorthodox hybrid was formed.

Completed in 2012, this single building serves a diverse range of needs. In addition to being both an academic and public library, it also provides services for county archives, local history, council customer services and archaeology services (Coulson et al. 2015, 128). Concern was raised at design stage about the potential for conflict between its proposed functions, such as the noisy children’s library and quiet areas for academic study. This was resolved through the building’s vertical zoning which positions bustling spaces on lower floors and those requiring more concentration on increasingly higher levels.

The Hive provides an example of a working hybrid library in which the needs of two traditionally disparate environments have been successfully combined. It does so at a time when many universities are investing in campus facilities whilst local authorities are faced with budget cuts and public libraries with closure. It also serves to bring the realm of higher education into the public domain of the city, fostering closer links between the two.

Increasing the diversity of programmes clearly has the potential to create problems between the different needs they are trying to meet but The Hive demonstrates that noise conflict between hybrid programmes can be resolved. Other challenges will likely come with complex programmes such as mixed opening hours and access. These can be also resolved through thoughtful design, to control movement between different areas of the building at various times of the day.

Hybrids with Other Civic Programmes

Libraries often sit beside other cultural buildings. Liverpool's Central Library, for example, is adjacent to both museums and an art gallery. Likewise Berlin's Staatsbibliothek is sited in the Kulturforum beside the New National art gallery and Philharmonie concert hall. Such proximity reinforces the cultural and civic identity of the library. Some new libraries have combined these programmes within one building. The National Technical Library in Prague incorporates an auditorium and exhibition spaces on the entrance level, with reading and stack spaces above; and the Santa Monica Public Library includes a small museum and auditorium (Lee 2011). However in both cases the library remains by far the predominant programme.

Talvé (2011, 502) recognises these elements might be increasingly combined in future, citing the LibraryMuseum in Albury, New South Wales, which brought the collections of a library, museum and gallery together in a single civic facility in 2007, dramatically increasing visitor numbers. Demas (2005, 36) argues that such collaboration would in fact be reuniting programmes that coexisted in one building in antiquity but which have since become isolated from each other, and that although many libraries contain some art it is rare to find one with a well-curated art programme. In fusing these public programmes within one building the resulting whole would be substantially more than the sum of its parts.

Libraries have already diversified to provide wider public services such as local council facilities for employment and housing; this trend could be extrapolated to include functions such as crèches, walk-in health centres, dentists or a community parliament (Smith 2015). How else could their roles be diversified? The Arts Council England proposes that the local community be involved in the design and delivery of their library's services (Davey 2013, 8); such consultation should ensure libraries are more closely aligned with the needs of their users.

van de Pas (2014, 281) observed that libraries generally provide a truly public space for all to enter. They are an integral part of the public realm; like town squares, parks and playgrounds they are a place for the community. Creating a hybrid with other civic programmes would chime well with this concept of the library as public space, and broaden what is offered to that community. A wider range of services could strengthen people's perception of the library being part of the public realm that is freely accessible to – and providing for – everyone. Whilst libraries are likely to be both physical and virtual spaces, a hybrid building offers a programmatically rich place for recovering face-to-face engagement in an increasingly isolated society, as more people live alone and work from home. This – as Frischer highlights (cited above) – is what real architectural places offer over mere virtual space.

Alarming statistics concerning poor literacy standards among children and scant inner city childcare facilities led one theoretical project to propose a library be blended with a nursery and a primary school to create a place of learning for children (Newell 2013). In addition to library facilities, the School for Storytelling would provide childcare for parents and education for children, creating an environment in which they could read and be read to before being encouraged to act out the stories

in physical spaces that spark their imagination. This project highlights both the importance of encouraging children to read and the broader contribution library design could play in facilitating that aim.

Hybrids with Non-civic Programmes

Another theoretical project (Shariff 2013) challenged the traditional notion of the library as an austere civic building and explored how it could evolve as a place of heightened social interchange. By subverting some of its traditional functions, a diversified programme could include space for the performance of stories, installations by local artists and become places for people to record and retrieve their memories of the city in different media. Ad hoc spaces could be used for features like a second-hand book market which would be held in an in-between space – a covered external square that blurs the boundary between the library itself and the streets that surround it. Although traditional books and reading spaces are still present in The Memory Bank Library, they are juxtaposed with a complex mix of other functions that broaden the appeal of the building to everyone from the dedicated scholar to the casual shopper.

The Athenaeum at Goucher College in Baltimore was completed in 2009. It is anchored by the library facilities and a collection of up to 350,000 volumes (RMJM 2015), but within the same building is an art gallery, college radio station, a generous open forum space for performances and public events and – notably – even a space for exercise with static bikes and treadmills (Goucher College 2015). The Leon de Greiff public library in Medellin, Columbia, is sited in amongst playing fields and provides space for recreation activities on its roof terraces (Lee 2011, 122). Here library spaces and recreation spaces have conjoined. Whilst Tschumi proposed juxtaposing a library with a running track, these buildings have comprehensively fused the library with more health-conscious functions to meet the needs of a society that is increasingly concerned with physical wellbeing. Libraries have already been shown to have positive associations with health (Fujiwara et al. 2015); these precedents show ways to deepen that association. To stay relevant, libraries must appeal to contemporary lifestyles.

What other possibilities might the hybrid library offer? Aabo and Audunson (2012, 148) found that although public library use is complex, a high proportion is as an extension of the workplace. The design firm Little (2015, 10) has questioned libraries' role in developing a culture of "creating" as opposed to "consuming." Libraries could nurture entrepreneurship by providing start-up workspaces and facilities to support nascent businesses, and promoting collaboration and co-working. The British Library (2015) is part of a £1.3m partnership between the Government and Arts Council England that has enabled sixteen public libraries across the UK to provide free face-to-face advice and guidance for entrepreneurs on how to start, protect and grow their own business.

Hybrids with Commercial Programmes

Traditionally libraries have occupied locations in a town or city that are set aside from primary retail areas – as can be seen in Liverpool and Manchester in the UK and in Berlin, where the library sits in the company of other civic buildings. This is also true of contemporary libraries, such as the 2013 Library of Birmingham in the UK, which is sited beside a theatre and concert hall. Even The Hive (built in 2012) sits on the edge, mediating between the town centre and the University of Worcester campus.

A key feature of the Idea Store projects is that they sit cheek-by-jowl with shops, market stalls and cafés. These libraries have become part of the high street and the wider urban commercial environment. Some argue that this signifies the commoditization of knowledge and compromises the civic role of the library but, even if it does, it has the distinct benefit of ensuring the library engages with a broader demographic, encouraging them to participate in the activities within. A decision to visit the library no longer needs to be a deliberate one, because people are more likely to drop in “while in passing.”

This blending commercial and civic activity is not without precedent. In ancient Rome, the Forum was a key public space. As well as being a market place, it was a gathering place – the scene of discussions, debates and meetings; in the Forum commercial and civic activities were fused. There are also examples of libraries being combined with retail. In first half of the twentieth century the UK pharmacy chain Boots started operating the Booklovers Library from its stores, and had over one million subscribers by the Second World War (Johnson 2015, 207). Often located on the upper floor or toward the back of the store, shops in larger city centre locations such as Manchester and Glasgow also provided library users with window seats, tables and sofas. After the War in the US many large supermarkets offered fully staffed libraries to attract customers (Ibid, 206).

The amalgamation of civic and commercial programmes can already be seen in some contemporary libraries. TK Park in Bangkok is a multimedia library located inside the Central World shopping centre in the heart of the city. It was created with the specific objective of encouraging children of all ages to read (Bangkok Post 2015). Similarly, the Serangoon Public Library is located on the rooftop of Nex – one of the largest suburban malls in Singapore. Here library and leisure space have conjoined, as the library becomes part of a cultural and commercial marketplace.

Financial Opportunities of the Hybrid Library

It is a sad and well established fact that public libraries face many challenges, including cuts to their funding and even closure. Local authorities – which allocate funding to public libraries in the UK – cut their overall spending by over a fifth between 2010 and 2015 (Innes and Tetlow 2015). In the year to April 2015 thirty-nine UK libraries were withdrawn from service, in addition to 262 over the three years prior (Public Library News 2015); a further 500 may be under threat (Green 2015). Equally concerning is that visitors to UK public libraries dropped by more than a quarter over the ten years to 2015 (DCMS 2015).

Libraries with complex programmes offer valuable opportunities to create multiple income streams, from both public and private funding. A hybrid of public sector programmes, such as the library and another civic function, would enable funding to be sought from different sources. The Hive suggests a model whereby public funding comes from both a local authority and a university. The new city libraries in Birmingham, Liverpool and Manchester all have their cafés located at the entrance, which will maximise their revenue. Going further and juxtaposing the library with non-civic functions (like shops, eateries and gyms) would create a symbiotic relationship where the private sector can support the public sector. This can generate greater financial stability in times of increasing economic pressure on public services.

The Impact on Libraries' "Identity"

Predictably, concerns have been raised over placing a library in a shopping mall or a high street – the contention being that it devalues or dilutes the library's distinctive civic character. Outerbridge and Assefa (2011, 4) suggest that whilst libraries must adapt to evolve, they must do so without losing their identity within the public sphere. That identity has traditionally been reinforced through the library's presence as a single, independent building – often located adjacent to other civic programmes. Would that be undermined if the library was sited alongside shops and eateries? Would it become lost among neon signs and shopfronts? The traditional view of the library is that of a place of refuge from the commercialization of towns and cities (Edwards 2009, 245). It is, however, just such places that people (especially the young) like to frequent, and this juxtaposition of programmes is likely to encourage those who might not ordinarily engage with a library to do so, as demonstrated by the Idea Stores and TK Park.

Aspenson et al. (2011, 18) suggest that changes in the use of library space – to focus on experience over content – will alter the character of the library, and force a transformation in the common perception of what library buildings are. Whilst acknowledging libraries should be designed to meet the challenges of the digital age, Edwards (2009, 248) argues that they must not become "mongrel types of building" in an era which has seen the erosion of single-function buildings. He goes further, proposing that libraries which do not evoke "library character" fail in their social discourse (Ibid, 246).

What would happen if – as in the Middle Ages – the library were to again become one element among an assortment of programmes? Would the library's identity be undermined if spaces such as reading rooms and casual seating were juxtaposed with retail, leisure, entrepreneurial and recreational programmes in the same building? In projects such as The Hive, where different libraries have been conjoined, the typology remains very clear. The civic identity of Albury's LibraryMuseum is still present when the library, museum and gallery were combined. Arguably it is when the library is conjoined with more unorthodox programmes that its identity might be at risk. However the discussion above shows that even in combination with programmes such as retail and sport the library's identity can remain clear and engaging, as demonstrated by TK Park and Leon de Greiff libraries.

There is a rich history of libraries' architectural identity as part of the civic realm, and the term "library" has a significant cultural heritage. The impact of that word to exert a universal recognition in people's understanding should not be underestimated (Worpole 2004, 12). Even if it might increasingly cover a diverse multitude of new programmes in sometimes unusual and intriguing juxtapositions, so long as the "library" is visible, the cultural associations will remain.

Concluding Remarks

An aim of this paper was to contribute to Talvé's (2011, 502) call for a reappraisal of the role of the "library as a place" in the civic life of its community. When traditional library spaces are conjoined with other cultural, leisure, commercial and recreational spaces then people are attracted to use them who might not do so otherwise, and they are provided with opportunities to spend longer in that place. As digitization continues to change ideas about what libraries should be, they can reach a wider audience than ever before by increasing the range of programmes they provide (Worpole 2004, 4). This can strengthen their role as a focus for the population they serve; the library then becomes what Demas refers to as "an agent in community building" (2005, 34).

As Aabo and Audunson (2012) note, the library is a democratic, pluralistic place, full of complex and subtle interactions. Arguably hybrid programmes can nurture this quality, reflecting an ever more complex culture and diverse society and reinforcing the notion of the library as physical spaces for engagement and assembly. They are a twenty-first century reincarnation of the Forum. Aspenson et al. (2011, 15) argue that architects must design libraries in such a way that as physical collections become supplanted by digital content those spaces can be adapted to become places for people. Hybrid libraries can explore the nature of what those places could be.

That is not to say that all libraries should have hybrid programmes; just that the hybrid model offers many opportunities to increase libraries' appeal in their communities and shore up their financial foundations. Nor is it to say that hybrid libraries should be a smorgasbord of unrelated programmes. Whilst there might be perceived risk in undermining the identity of a library as a civic institution – such as it has enjoyed alongside museums and art galleries – the cultural association that is deeply embedded in the term “library” will ensure that its identity as part of a complex composite of different programmes is clear to the people that it serves. Freeman (2005, 7) suggests asking what programmes not in the library at present should be in the future. This paper argues that question should be answered creatively and with minds open to opportunities that unorthodox programmes might bring.

In the last two decades the idea of “what libraries are” has changed more than in the previous two millennia. By embracing the notion of the hybrid library, their relevance and robustness can be strengthened to ensure that they continue to be an integral part of the civic realm of towns and cities for many years to come.

References

Aabo, Svanhild and Ragnar Audunson. 2012. “Use of Library Space and the Library as Place.” *Library and Information Science Research* 34: 138-149. Accessed April 2, 2015. doi:10.1016/j.lisr.2011.06.002.

Aspenson, Amanda, Jack Poling and Jeffrey A. Scherer. 2011. “The 21st Century Library Building – Adjust or Withers.” Paper presented at The Effect of New Technologies on Library Design: Building the 21st Century Library conference, Atlanta, Georgia, August 10-11.

Attis, David. 2013. “Redefining the Academic Library – Managing the Migration to Digital Information Services.” Paper presented at Looking Forward: Re-Imagining the Academic Library's Role in Teaching, Learning and Research conference, McMaster University, Ontario, March 1.

Bangkok Post. 2015. “Thailand Knowledge Park (TK Park).” Accessed March 31. http://www.bangkokpost.com/lifestyle/3032_info_thailand-knowledge-park-tk-park.html.

British Library. 2015. “Enterprising Libraries: A Blueprint for Delivering Economic Growth in UK Cities.” Last modified June 23. <http://britishlibrary.typepad.co.uk/business/2015/06/enterprising-libraries-a-blueprint-for-delivering-economic-growth-in-uk-cities.html>.

Coulson, Jonathan, Paul Roberts and Isabelle Taylor. 2015. *University Trends – Contemporary Campus Design*. Abingdon Oxon: Routledge.

Davey, Alan. 2013. *A Library of the Future – A Response to Envisioning the Library of the Future*. London: Arts Council England. May 23. <http://www.artscouncil.org.uk/advice-and-guidance/browse-advice-and-guidance/library-future>.

Department for Culture, Media and Sport (DCMS). 2015. "Taking Part 2014/15 Quarter 4 Statistical Release." June 25. <https://www.gov.uk/government/statistics/taking-part-201415-quarter-4-statistical-release>.

Demas, Sam. 2005. "From the Ashes of Alexandria – What's Happening in the College Library?" in *Library as Place – Rethinking Roles, Rethinking Space*, Freeman, Geoffrey T., Scott Bennett, Sam Demas, Bernard Frischer, Kathleen Burr Oliver and Christina A. Peterson, 25-40. Washington DC: Council on Library and Information Resources. Available at: www.clir.org/pubs/reports/pub129.

Edwards, Brian. 2009. *Libraries and Learning Resource Centres* (2nd edition). Oxford: Architectural Press.

Freeman, Geoffrey T. 2005. "The Library as Place – Changes in learning Patterns, Collections, Technology and Use" in *Library as Place*, Freeman et al., 1-9.

Frischer, Bernard. 2005. "The Ultimate Internet Café – Reflections of a Practicing Digital Humanist about Designing a Future for the Research Library in the Digital Age." in *Library as Place*, Freeman et al., 41-55.

Fujiwara, Daniel, Ricky Lawton and Susana Mourato. 2015. "The Health and Wellbeing Benefits of Public Libraries." March 26. <http://www.artscouncil.org.uk/advice-and-guidance/browse-advice-and-guidance/health-and-wellbeing-benefits-public-libraries>.

Goucher College. 2015. "Library Information." Last modified June 22. <http://libraryguides.goucher.edu/content.php?pid=614833&sid=5081935>.

Green, Andrew. 2015. "The Beautiful Librarians are Dead – Academic Librarians and the Crisis in Public Libraries." *Gwallter Blog*, June 28. <http://gwallter.com/libraries/the-beautiful-librarians-are-dead-academic-librarians-and-the-crisis-in-public-libraries.html#comments>.

Innes, David and Gemma Tetlow. 2015. "Sharpest Cuts to Local Government Spending in Poorer Areas." March 6. <http://www.ifs.org.uk/publications/7621>.

Jochumsen, Henrik, Casper Hvenegaard Rasmussen and Dorte Skot-Hansen. 2012. "The Four Spaces – A New Model for the Public Library." *New Library World* 113 11/12: 586-597. Accessed June 10, 2015. doi:10.1108/03074801211282948.

Johnson, Alex. 2015. *Improbable Libraries*. London: Thames and Hudson Limited.

Lane, Megan. 2003. "Is This the Library of the Future?" *BBC News Online*, March 18. Accessed March 31, 2015. <http://news.bbc.co.uk/1/hi/uk/2859845.stm>.

Lee, Katy. 2011. *Libraries*. Hong Kong: Design Media Publishing Limited.

Little Diversified Architectural Consulting. 2015. "Athenaeum - The Future Library." Accessed April 25. www.littleonline.com/uploads/thinking_documents/the-21st-century-public-library/athenaeumpresentation.pdf.

Newell, Lee. 2013. "The School for Storytelling." Undergraduate Architecture thesis project, Liverpool John Moores University.

Oppenheim, Charles and Daniel Smithson. 1999. "What is the Hybrid Library?" *Journal of Information Science* 25 2: 97-112.

- Outerbridge, Grant and Shimelis Assefa. 2011. "Space and place in the 21st Century Library." Accessed April 25, 2015. <https://portfolio.du.edu/downloadItem/225464>.
- Pawley, Martin. 1998. Terminal Architecture. London: Reaktion Books.
- Prizeman, Oriel. 2011. "TQ Libraries." *The Architectural Review* 1377: 84-95.
- Public Library News. 2015. "List of Withdrawn Libraries." Accessed June 29. <http://www.publiclibrariesnews.com/about-public-libraries-news/news-topics>.
- RMJM. 2015. "Goucher College Athenaeum." Accessed March 31. <http://www.rmjm.com/portfolio/goucher-college-athenaeum-usa/>.
- Roth, Manuela. 2011. Library Architecture + Design. Schweiz: Braun Publishing AG.
- Rusbridge, Chris. 1998. "Towards the Hybrid Library." *D-Lib Magazine* July/August. Accessed April 25, 2015. <http://www.dlib.org/dlib/july98/rusbridge/07rusbridge.html>.
- Shariff, Omar. 2013. "The Memory Bank." Undergraduate Architecture thesis project, Liverpool John Moores University.
- Smith, Charlie. 2014. "Future of the Book and Library Creatively Explored." *New Library World* 115 5-6: 211-224. Accessed March 31, 2015. doi:10.1108/NLW-04-2014-0034.
- Sudjic, Deyan. 2004. "When is a Library Not a Library? When it's an 'Idea Store'." *The Guardian*, July 11. Accessed March 31, 2015. <http://www.theguardian.com/artanddesign/2004/jul/11/art2>.
- Talvé, Annie. 2011. "Libraries as Places of Invention." *Library Management* 32 8-9: 493-504. Accessed April 27, 2015. doi:10.1108/01435121111187860.
- Tschumi, Bernard. 1994. Event-Cities. Cambridge, Massachusetts: The MIT Press.
- van de Pas, John. 2014. "Ad Fontes! Books on Shelves! Delivering Free Access to Information in the Public Library of 2025." *New Library World* 115 5-6: 272-284. Accessed August 15, 2014. doi: 10.1108/NLW-05-2014-0047.
- Worpole, Ken. 2004. 21st Century Libraries – Changing Forms, Changing Futures. London: Building Futures and MLA. Accessed June 4, 2015. <http://www.buildingfutures.org.uk/projects/building-futures/learning-environments-of-the-future-libraries>.

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