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Green libraries promoting sustainable communities

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Abstract:

What is a sustainable community? How does the library as an institution, through the construction or renovation of a library building, promote and model sustainable behavior? The behavior and process that a library institution exhibits during the construction of a library building establishes an important community bond between the institution and the citizens it serves. Citizens not only learn from the process but they also begin to understand how to model their behavior. Libraries, in turn, learn from their citizens who are increasingly demanding a deeper commitment to sustainable practices in the construction, operation and maintenance of their libraries. Besides these community-centric relationships, the buildings themselves can model best practices. Specifically, the community dialogue and listening process is crucial to establishing trust between the institution and the citizens. Without this trust, the success of a sustainable community will falter. This paper uses examples of these best practices and discusses the lessons learned for promoting sustainable communities through library design, building and operations.

Keywords: Sustainable, Buildings, Libraries, Community, Economy

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The Online Dictionary of Library and Information Science (ODLIS) defines green/sustainable libraries as:

A library designed to minimize negative impact on the natural environment and maximize indoor environmental quality by means of careful site selection, use of natural construction materials and biodegradable products, conservation of resources (water, energy, paper), and responsible waste disposal (recycling, etc.). In new construction and library renovation, sustainability is increasingly achieved through LEED (Leadership in Energy and Environmental Design) certification, a rating system developed and administered by the U.S. Green Building Council (USGBC).

While this may be the broadly accepted definition, I would like to expand the definition to:

A library designed to maximize the positive impacts on the social, cultural, economic and environmental aspects of a community.

In the United States, most questions are framed primarily around the topic of economics. This perspective frames the question in such a narrow band that any dialogue about sustainable initiatives is often seen as a *consequence* rather than a *foundational* aspect of planning. To counter this political straight-jacket library administrators and planners have begun to capitalize on and leverage the fundamental *social capital* aspect of the library. Social capital, as first defined by Coleman, Bordieu and others, "is essentially the network of linkages, trust and bonds within a society that allow an individual to operate within a society that accrues advantages to that individual." The idea has been extended by writers and researchers such as Putnam and Cox, 'to mean the advantages that accrue to a society from the aggregated networks of individual trust'. (1)

Successful libraries are responsive to their communities—creating services that are specifically tailored to their needs. As institutions, they are reasserting themselves as essential centers of learning and community exchange by creating this social capital in an intellectual marketplace. While their operational budgets are nearly always constructed and justified in a within a political structure, they are beginning to understand how to frame their economic needs within the larger context of cultural, social and environmental services. As the intellectual heart and soul of a community a library supplies the blood and nutrients specifically through its services. As defined by Amitai Etzioni in *The Monochrome Society*: "Community [is defined] as having two attributes: first, a web of affect-laden relationships that encompass a group of individuals—relationships that crisscross and reinforce one another, rather than simply a chain of one-on-one relationships. To save breath, this attribute will be referred to as bonding. Second, communities require a measure of commitment to a set of shared values, mores, and meanings and shared historical identity—in short, a culture."

It is precisely this *bonding through shared values* that is central to promoting sustainable communities. Through this bond, the library can establish a social compact that creates a positive *chain reaction* within a community. By inextricably linking the economic, social, environmental and economic performance of the library within the community, the library serves a new role model for governance that refuses to be limited by the narrow economic frame so prevalent in the political dialogue of the early 21st century. These four *cardinal points* form the structural framework for the proposition that libraries promote sustainable communities. The premise of a truly sustainable community is that each of these four cardinal points have to be in equilibrium.

Economic Where cost can be found to provide measurable functional and use of utility benefits	Social Where community and shared political process benefits can be measured
Environmental Where minimal environmental impact (ideally measurable environmental benefits) can be found	Cultural Where aesthetic, ethical and other cultural meanings can accrue.

When these elements are in balance, there emerges a deeper understanding between the institution, the customers it serves and the government agencies that control its

administration. This balance is not, however, easy to achieve nor is it a given that support for sustainable efforts will be forthcoming when the library community does its utmost to make it happen. Given the variety of activities that take place in a library, a key challenge in sustainable library planning and design is achieving a balance among an opposing range of functions and needs. Some examples include: solitude/interaction; quiet/noise; conservation/food and drink; order/mess; existing/physical barriers/barrier free; durability/comfort; openness/security; limited hours/24x7 expectations. This process often results in a continual need to reconcile opposites. Through this reconciliation process, libraries can, I believe, find a channel to deepen the relationship with the community and thus achieve a more sustainable model.

The Sustainable Community Matrix:

	Economic	Social	Environmental	Cultural
Broad Mix of Community Services	The value of services can be seen as real and tangible	Creates and fosters a caring community	Minimizes travel times and increases efficiency of delivery	Puts a stake in the ground that the library is an ethical imperative that supports local values and identity
Fostering Communication	The library can be a place where public licenses can be obtained	Shared access and co-mingling with neighbors	Eliminate redundancies	Repositions information and all forms is equal in value (for example theater, language arts, storytelling, film, audio)
Showcase for Community Memory	Secure and time- shifting of collections reduces loss of community memory	Shared history	Efficient	Genealogy, archives, maps, festivals, cultural events, local history
Building Capactity for local Businesses	Informed advice for small businesses, startups, community advocacy organizations. Per use fee us lowered for shared access	Center for entrepreneurs, career changes, coursework recommendations	Centralized	Smart cities come from smart people
Public Community Gathering Spacs	Linkages with local business, entertainment and educational enterprises	Neighborliness	Minimize travel and maximize joint use	Interior and exterior spaces can be used for events such as farmers market, science exhibit, public art, and festivals
Boosting the Local Economy	Supported the local scene through high-traffic public space	Excess increases awareness; awareness coupled with quality offerings increases	Reduced travel time	Café, used books, Festival booths, international newsstand, video and data access,

	Economic	Social	Environmental	Cultural
		economy		farmers markets
Easy Access	Reduction of time	Connected to public transportation	Eliminates hard- surfaces, reduce carbon footprint for travel	Walkable city
Energize Surrounding Area	Synergy of colocation increases exposure	Raise awareness, welcoming, stability of place	Increases use	Interior-exterior dissolution, edges of building provide for other activities
Multiple Attractions and Destinations	Efficiency	Attractive people through "mini venues" increases awareness of "major services"	Maximize use of investment	Interior-exterior dissolution, edges of building provide for other activities
Support Multi- functions	Efficient and multi- use of the facility reduces per use costs	Keep people coming back for more	Attractive spaces reduce disuse and degradation	Outdoor spaces I can have multiple uses such as cafés, coffee carts, used book sales, meeting spaces, and art performances. Include space for public gardening
Variety of Amenities	By increasing the number of options, the number of users will increase thus maximizing the investment	Encourage social interaction and awareness of who is your neighbor. Increasing tourism.	Efficient	Services can be provided for all citizens—Wi-Fi, access to art, civic space. It does not have to be only library centric
Change with Time	Increase usage year- around	Provide for citizen's changing patterns of use	maximize seasonal use	Highlight seasons with markets, horticulture exhibits, holiday celebrations and linked cultural events
Catalyze Community Revitalization	Expand influence of public-private partnerships and citizen investment; provide new investment	The wise use of community-based sources reinforces community health	Revitalization prevent slow decay and degradation	Visibility, public confidence, prime

Economic

Central to any institution's success is a healthy budget that enables it to deliver exactly what the citizens need for a price they feel is fair. This is especially true in establishing equilibrium between what is wanted and what is needed—in a sustainable community. By paying attention to the cultural, social and environmental performances, the library will be able to more accurately assess what is a fair budget and a fair capital request. A fair budget gains support when the level of trust in the community is high—brought on by the library paying attention to the community and delivering on its promises. This provides measurable benefits to the function, use, and utility of the library. The value of the library's services will be real and transparent. By eliminating redundancies and managing the collection carefully, the efficiencies (and thus its sustainability) will accrue savings that can be applied to new and tailored services. Besides the operational benefits, the library can help the local community better leverage its budgets by providing informed advice for small businesses, start-ups and community advocacy organizations. This lowers the per-use fees for shared access databases and other services. By acting as the go-between to link local businesses with social, cultural, educational and entertainment resources, the library can be seen as an economic "giver" rather than "taker." By providing the proper spaces, the library can increase the number of service options for local constituents that will increase the number of users and thus maximize the investment. Finally, by expanding the influence of public-private partnerships, new investments of fiscal and intellectual capital will strengthen the local economic performance.

Social

The way a public library is viewed by the public is both personal and circumstantial. This is is especially true in relationship to building a sustainable community. Some people may feel sustainability is primary an affordable issue and that any social aspirations should be left to others. There are as many opinions of the library as there are citizens of the city. This phenomenon places a burden on the library's administration to manage the resources and decide what services to provide. Staff must actively survey and understand the nuances of their patrons' changing needs to stay fine-tuned with them and with the social expectations of the city. The feed-back loop and adjustment of programming is not only the right thing to do but also communicates that the library cares. Through this action, barriers between constituents can be eliminated and dialogue increased. For example, social agency partnerships to deal with persons experiencing homelessness can not only help but reposition the issue to the forefront of the community conversation. Over time, this loop of listening, adjusting and communicating creates a shared history—an essential ingredient to any successful city. Once the community understands this, the library can expand to be seen as a center for entrepreneurs, career change and academic course work. By developing rich offerings, adjusted to the social needs of the community, the public awareness of the importance of the library increases; with increased awareness, the local knowledge economy can grow. The deeper this knowledge economy is embedded in the social fabric of a community, the higher the likelihood of creating a sustainable one. Finally, this leads to a civility of place, a library that is welcoming and seen to be a living and adjusting institution with community at its heart. This will keep people coming back for more.

Environmental

The Public Library must establish itself as a self-aware and responsible steward of the environment by its everyday self-correcting practices. It should not be content to rest on its

initially established and recognized sustainable standards. To be truly sustainable, it must change its operational and cleaning practices, continually adjust its technology infrastructure, and monitor its consumption and waste. The goal, obviously, is to minimize the environmental impact on the earth. The library's location within the city can minimize patron travel and increase the efficiency of service delivery. This eliminates redundancies of services. It is noted, however, that as a city's population shifts and access time increases thel library must continually adapt to the changing patterns of use. Paramount to this will be to judge the necessity against all of these performance measures. By reducing waste and inefficiencies, the library can leverage the substantial investment made by its citizens initially, and in the on-going support. By keeping the library attractive, efficient and well maintained, it can reduce the disuse and degradation caused by neglect. Through an "active learning" imperative, it can continually revitalize itself, maximizes use seasonally and slow down decay and degradation.

Cultural

The public library can serve as a central hub that offers a broad mix of community services. The cultural services that it offers provide an ethical imperative for local values and identity. Through its choices of cultural offerings, it can foster communication by becoming a repository for information in all forms as equal in value. This can include theater, language arts, story-telling, film and audio. Collectively, these offerings become a showcase for the collective memory of the community. These archives can include genealogy, maps, records of festivals, local history and recorded legacies of local cultural events and people. By building on deep traditions, the city's rich history strengthens its "smartness" which, after all springs from smart people. While much of this cultural recording is based in traditional library services, the library should also extend its thinking to include integrating with the farmer's market, partnering with other cultural organizations, providing science fairs, public art exhibits and continuing its strong tradition of literary and cultural programming. These activities, including the cafe, boost the local economy through increased awareness of the role cultural performance plays in the city. Beyond these cultural opportunities, the design of the library energizes the local area through its landscape design, interior-exterior dissolution, and space for spontaneous dialogue amongst its citizens. By fine tuning and seasonally adjusting these cultural programs, the library can be seen as "the place" to go for cultural activities that extend beyond the normal provision of answers and materials. This will extend its visibility, increase public confidence and instill pride—bedrocks to a thriving and important institution.

Five Points to Effective Evolution to a Sustainable Community

1. Context

By recognizing that the library sits first and foremost in a context, it will be able to use its sustainable levers to manage growth of the city, future development plans, the advancement of partnering institutions, the impact of the climate, the collective community culture and the particular circumstances of the city. This shift requires the intense focus on the local that is shaped by the lessons of the global.

2. Constituencies

Every community has a unique but continually evolving constituency. No library is different. It will include local pedagogical institutions and their attendant service and support groups; retirees and young families; entrepreneurs and established business owners; and a growing number of families with small children. Sustainability means simultaneous and equal support for all its constituent customers.

3. **Beliefs and Values**

The citizens will express loud and clear that the library is central to their lives. Often the library is not equipped to listen to listen to this chorus. By clearly articulating the shared values with a community, the platform for establishing a sustainable community can be built.

4. Community Needs

Besides external connections a sustainable library is one that can efficiently tailor its services so that there is nothing wasted. Space to provide programs in a safe and appropriate space; store the materials in an easily accessible manner; meet the demands for computer (physical and virtual) access; enable staff to do their job; enable students and others to meet, study and collaborate; and provide distinctive and carefully planned individual areas for separate age groups. This very short list highlights the crucial need to program the library in a very specific way—but critically to design it with flexibility so that change management is efficient and can be done in a sustainable way.

5. Community Consensus

Normally, nothing happens in a democracy unless a majority agrees. Without a process of community engagement, there will not be support. Without support, there is likely to be no process to reconcile the competing needs and constituencies.

What Matters in a Sustainable Community

The pace of change in the library can be overwhelming. For example, there is a societal anxiety as well as a curiosity about the need to "replace books with technology." This paper attempts to provide a balanced set of guidelines to establish the library as the holistic and sustainable "heart" of a community.

To do this, libraries should understand and consider:

- The impact of the Internet on library access and use. The resulting increase in speed, capabilities and capacity, coupled with the decreasing costs of services, will continue to disrupt the library service environment. Demand for speed and, critically, power access will be constant. However, evidence shows that a libraries electrical demand can increase by 50% with the increased use of technology. What gives can also take away. Use of alternative energy to at least maintain equilibrium is a start.
- The increased use of automation. This will enable the library to shift labor from menial and repetitive tasks (such as book return and processing) to more user-focused services. This will impact how space is distributed and allocated. It will also impose a shift in staff accountability, training, and public service methods. This sustainable allocation of human resources is perhaps one of the overlooked aspects of a sustainable community.

- A deeper understanding of who uses the library through data mining and collection. This enables the administration to be more nimble in shifting resources to meet patron demands.
- The transference of information to the cloud. This will enable the library to be the aggregator of community knowledge. It can become the "go-to source" for digital content that is "community centric." This strategy will help stem the accusations that the "print centric" library of the 20th century is no longer relevant to the needs of the public. This accusation is, in our opinion, misguided.
- Having the courage to not throw the print-baby out with the bath water. This is crucial for the long-term place of the library in a sustainable community. The evershifting e-book industry will not be resolved soon, in our opinion. For this reason, retention of a strong and deep print collection is central to a sustainable policy. In the US, a popular book in a public library is read about 25 times before it is sold in a used bookshop or is needed to be recycled. This policy is consistent with the way the patrons use the library and its resources.
- People meeting people: the next new thing. We believe that the first 20+ years of the Internet was the exploration period. Now that we have a generation of kids who were born after 1984 (acknowledged as the start of the personal computer age), there is a sweeping trend of personal interaction. Kids want to meet friends face to face, study, discuss ideas and make things together. This is a central part of community building—which is central to a sustainable community.
- Quiet as a mouse: an essential element of reflective lives. It is our belief that the world is getting more and more hectic, noisy and rushed. The library is an oasis from this. For this reason, we are advocating for a careful balance of active and passive space. Patrons should be able to find a quiet corner to read, think, or simply day-dream. They should also be able to find technology-savvy spaces where they can meet and collaborate with others in person or via distance connection services. By providing contemplative space, the library is enabling the future to be defined by thinkers—not reactionaries.
- Convenience. Despite our best intentions, we are still, at least in the US, a personal car dominated culture. While we feel the library can be a leader in establishing sustainable features that reinforce walking, bicycling, car sharing and use of public transport, it is crucial that the library be accessible and easy to use for all patrons. This issue is complicated and creates a dichotomy within a city. We understand that some patrons have very low carbon foot-prints; yet the library has to serve all. At least in thinking about location within the community the library can set in motion more sustainable advances within a community transportation network.

The presentation of this paper at WLIC at Session 152: *Green libraries promoting* sustainable development — Environmental Sustainability and Libraries Special Interest Group will include USA examples from:

Louisville, Kentucky: Louisville Free Public Library

A regional system that is using a pre-engineered building model that is adapted to each site and is designed to reduce energy consumption by 50% from the code base line.

Fayetteville, Arkansas: Fayetteville Public

This library was the *Library Journal* Library of the Year in 2008. It has employed state of the art lighting, cleaning and energy management systems. It is also planning a 100% expansion that will utilize the *Living Building Challenge* Pedals Program.

Madison, Wisconsin: Madison Public Library

Recently opened, this 1964 mid-century modern library has been completely redesigned to be environmentally and community sustainable.

The presentation will be uploaded to the Interest Group's website after the presentation.

References

1. Randell, M The science of technologies of participation, in Public libraries: community building. Proceedings of the 7th biennial conference Fremantle WA 7 March 2003 Adelaide, Auslib Press 2003 pages 65-73.