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Adaptive Repurposing of Smith Elementary

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ADAPTIVE REUSE

Smith Elementary School

In the world of design there are a myriad of choices to be made. When buildings and spaces can be built and customized to suit your every need, it's no wonder that so many companies start from scratch when the need for new or more space arises. These days it seems the idea of using existing buildings is far from being the first option, especially with older buildings. There is no need to make an existing space work when you can just as easily tear it down, start new and get exactly what you want. However, there are plenty of reasons why those who are looking to move into a new space should keep that older building and work within the space that is already there. From sustainability to affordability to the effects on the community, the sustainable reuse of buildings should be a more known and considered design option.

Sustainable reuse in architecture denotes the process of building conversion so as to accommodate new functional requirements.¹ More simply said, adaptive reuse is where buildings are renovated so that they have a new use. The most common example is the conversion of industrial buildings because they have such large open spaces allowing for an easy conversion. You are working with a nearly blank canvas. Adaptive reuse has been done since the ancient times with the easiest example being religious buildings housing many different religions over time such as the Hagia Sophia in Istanbul. Of course, when doing this I'm sure those people weren't thinking about preservation or the saving of money with lower building costs. As time, has gone on more and more people have taken a serious look at adaptive reuse as a real option. There have been books, essays and guidebooks written on the subject over the years with different approaches being taken.

¹ Eyüce, Özen, and Ahmet Eyüce. 2010. "DESIGN EDUCATION FOR ADAPTIVE REUSE." Archnet-IJAR 4, no. 2/3: 419-428. Art & Architecture Complete, EBSCOhost (accessed January 30, 2017).

Popularized in the 1970's, adaptive reuse came in at a time where previously all people had done was tear down old buildings. A great example of this is in Keene, New Hampshire. Adaptive reuse was a response to a community that was unhappy seeing its historic buildings and homes being torn down. The people of Keene realized that it was just as affordable to renovate and reuse these old buildings as it was to build new ones, only with the old ones there was better construction methods having been used and better materials along with maintaining the historical integrity of the community. It was all about maintaining the culture and history of the area. Some specific examples within Keene are the Colony Mill Marketplace which, as one can tell by the name, was once an actual mill. There is also the Center at Colony Mill which was once the repair shop for the railroad that ran through Keene and is now a shopping center. It is also thought that the old middle school in Keene would be a great opportunity for adaptive reuse in the future along with the YMCA that also currently sits vacant.²

With examples of sustainable reuse seen all over the world, Akron itself would have plenty of opportunities. One completed example is Cascade Lofts. Located at North Howard and North streets, Cascade Lofts are housed in what once was an old Swinehart Tire and Rubber Co. building. This building, having gone from a rubber factory to a space that now has 24 apartments, an event space and brewery is a wonderful example of adaptive reuse. While the space inside is updated for its current use, there is still some of the character visible in the original maple floors and the steel beams that run throughout the interior. There was also the consideration of the period that this building is from when updates were made, such as the

² *Adaptive reuse of historic buildings Keene NH 2015* . Directed by Greg Pregent. Performed by Rhett Lamb, Micael Petrovick, Alan Rumrill, and Jud Rogers. Adaptive reuse of historic buildings Keene NH 2015 . January 6, 2016. Accessed February 10, 2017. <https://www.youtube.com/watch?v=N7I1bjgAHJ0>.

divided-light windows which are appropriate for the era. This building has also been made more sustainable by including LED lighting, energy star appliances and an inner shell that was built inside the original clay tile exterior walls to allow for generous insulation.³ After these updates this building still has managed to retain its original character and continues to keep its honored place in Akron's history.

When looking at world-wide examples of adaptive reuse it is natural to reference Australia. When it comes to adaptive reuse no one does it quite like the Australians. In 2004 the Australian government published a booklet that observed the benefits associated with adaptive reuse. In this booklet, it is explained that one of the goals of the Australian government is to move towards energy efficient design. However, it does not escape them that they have hundreds of years of architecture already in existence in their built environment and that there is a clear connection to those buildings and the country's history and the character of their communities. Later in this booklet it is stated that "In 2001, new building accounted for about 40 per cent of annual energy and raw materials consumption, 25 per cent of wood harvest, 16 per cent of fresh water supplies, 44 per cent of landfill, 45 per cent of carbon dioxide production and up to half of the total greenhouse emissions from industrialized countries. The Australian Greenhouse Office notes that the reuse of building materials usually involves a saving of approximately 95 per cent of embodied energy that would otherwise be wasted. In this context, the reuse of heritage buildings makes good sense."⁴ This shows the clear benefit of adaptive reuse to the environment.

³ Breckenridge, Mary Beth. "Downtown tire factory-turned-apartment building to welcome visitors Saturday." *Ohio.com*, September 28, 2016. Accessed January 31, 2017. <http://www.ohio.com/news/local/downtown-tire-factory-turned-apartment-building-to-welcome-visitors-saturday-1.715341#>.

⁴ Australian Government Department of the Environment and Heritage. *Adaptive Reuse*. The Australian Government Department of the Environment and Heritage, 2004. PDF.

It must also be considered that as the years continue to pass these numbers will only likely continue to escalate in our increasingly fast-paced world that has a need for continued growth and development of the built landscape. The same booklet also includes several case studies as examples of work that has been done in adaptive reuse, one of them being Awabakal Cooperative Administration and Elders' Center. "The adaptation of an infants' school to an Elders' Centre in Newcastle has turned a place for the young into a place for elders and demonstrated the Awabakal Cooperative Board's commitment to respecting the shared Indigenous and non-Indigenous heritage values of the place...Financially, reusing the existing building was preferable to selling it and acquiring a vacant site in the inner city, which would have been prohibitively costly."⁵ While there is no exact figure is available here, we see yet again that building new isn't always the most cost efficient option out there. When you can simultaneously save money, and be respectful of culture and history it's a win-win opportunity.

This same booklet also reveals the social benefits of adaptive reuse stating, "Keeping and reusing historic buildings has long-term benefits for the communities that value them. When done well, adaptive reuse can restore and maintain the heritage significance of a building and help to ensure its survival. Rather than falling into disrepair through neglect or being rendered unrecognizable, heritage buildings that are sympathetically recycled can continue to be used and appreciated."⁶ While some may think that adaptive reuse doesn't benefit our communities it should be known that it truly does. As we have seen with the people of Keene who actively sought out to keep their historic buildings, there is a desire in communities to hold onto their

⁵ Australian Government Department of the Environment and Heritage. *Adaptive Reuse*. The Australian Government Department of the Environment and Heritage, 2004. PDF.

⁶ Australian Government Department of the Environment and Heritage. *Adaptive Reuse*. The Australian Government Department of the Environment and Heritage, 2004. PDF.

history through architecture. Heritage manifests itself many ways and architecture is one of them.

Finally, this booklet notes the economic element in adaptive reuse. “A study for the NSW Heritage Council that included four adaptive reuse or redevelopment sites revealed that ‘the combination of financial incentives and the commercially oriented nature of the adaptive re-use schemes outweighed any extra heritage related costs and project risks’.” The study also concluded that “...these sympathetic adaptive re-use schemes have created commercially viable investment assets for the owners.”⁷ While there has been no actual definitive research done on the subject, there is the obvious popular appeal of this kind of architecture to people. Cities can almost rely on the nostalgia created by keeping and reusing these wonderful buildings.

Ultimately, adaptive reuse is a great architectural alternative to new construction and ought to be more readily considered. There are clear benefits to the environment, to society and it does play, at minimum, a small role economically. Reuse of a building can be done successfully and can make a difference in most communities. Often there is a consensus that a population of old buildings ought to be torn down, but old buildings hold a place in the heart of their communities and do make a difference. It’s time to give old buildings a second life.

⁷ Australian Government Department of the Environment and Heritage. *Adaptive Reuse*. The Australian Government Department of the Environment and Heritage, 2004. PDF.

Bibliography

Adaptive reuse of historic buildings Keene NH 2015 . Directed by Greg Pregent. Performed by

Rhett Lamb, Micael Petrovick, Alan Rumrill, and Jud Rogers. Adaptive reuse of historic buildings Keene NH 2015 . January 6, 2016. Accessed February 10, 2017.

<https://www.youtube.com/watch?v=N7I1bjgAHJ0>.

Australian Government Department of the Environment and Heritage. *Adaptive Reuse*. The

Australian Government Department of the Environment and Heritage, 2004. PDF.

<https://www.environment.gov.au/system/files/resources/3845f27a-ad2c-4d40-8827-18c643c7adcd/files/adaptive-reuse.pdf>

Breckenridge, Mary Beth. "Downtown tire factory-turned-apartment building to welcome

visitors Saturday." *Ohio.com*, September 28, 2016. Accessed January 31, 2017.

<http://www.ohio.com/news/local/downtown-tire-factory-turned-apartment-building-to-welcome-visitors-saturday-1.715341#>.

Eyüce, Özen, and Ahmet Eyüce. 2010. "DESIGN EDUCATION FOR ADAPTIVE REUSE."

Archnet-IJAR 4, no. 2/3: 419-428. Art & Architecture Complete, EBSCOhost (accessed January 30, 2017).