To better inform our understanding of resiliency, the SFS studio investigated seven adaptive reuse precedents. There are three basic reasons for adapting an existing building: a new building is not affordable or it is inconceivable due to density; a building has landmark status and hence may not be demolished; or the existing structure is altered in lieu of demolishing it, because the attractive land use ratio of the existing building would no longer be permitted for a new one.

Just as an organization’s ability to survive hinges on their ability to adapt to changing environment conditions, a building’s survival depends on the ability to assume new purpose. The truest sense of an adaptive reuse is to transform an existing space to suit an entirely new occupant type and program.

In the Donna Brown Building, the renovation can be proposed as an addition to the existing building from the top, side, or back to increase program as well as rethinking or the possibilities of extending or adding stories, optimizing enclosure or digging beneath the existing infrastructure. This reveals the broad range the design explorations can encompass. The goal could also rely on aesthetic transformation to increase foot traffic and property value.

In St. Louis in particular, the existing building stock has allowed for adaptive reuse to be a viable option, therefore the renovation of existing buildings has contributed to the renewed success of different communities. Often these buildings have become obsolete or vacant through neighborhood decline but have revived under different parameters that adapt to current neighborhood trends. The renovation of existing buildings has become a source of projects to local firms and developers who have sought economic mobility of the projects through the use of tax incentives such as historic preservation, low income housing and/or mixed use development.
OLD SALEM JAIL
Salem, Massachusetts

Stories: 4
Renovated: 2009-2010
Function: Residential, Restaurant, Museum
Area: 30,800 sq. ft.

This development encompasses a diverse mix of amenities for residents and the overall community. Old Salem Jail has contributed to the boost in vitality of the downtown area of Salem, Massachusetts. It has a total of 23 apartment units, including an affordable housing unit. A restaurant, as well as a museum component to commemorate the jail’s historic past, are located in the main building. This redevelopment and its success symbolize the City of Salem’s commitment to preserving its historic heritage while promoting housing density in the downtown district. Salem continues to invest in supporting developments that improve the quality of life for its residents. The Old Salem Jail is a testament to the strong market niche in Salem and the city’s vision to create diverse residential options for its residents.
CAXIA FORUM
Madrid, Spain

Architect: Herzog & De Meuron
Renovated: 2001-2007
Function: Museum
Area: 15,000 sq. ft.

Housed in the former Mediodia Power Station, CaxiaForum Arts Center includes galleries, offices, a restaurant, and an auditorium below ground. The project is often described as a “mass detached from the ground in apparent defiance of the laws of gravity drawing the visitors inside.” The brick walls are the only remaining indicators of the former Power Station while the new addition on top is encased in oxidized cast iron. The existing walls were suspended and maintained in their original position throughout the renovation by setting the walls with poured concrete. By removing the base, the plaza slips underneath the building giving it the appearance that it is floating. This separation of the structure from the ground creates two experiences; one above the surface and a second one below. The auditorium and service spaces are formed below the floating volume while the gallery spaces are placed above.
FORD ASSEMBLY PLANT
Richmond, California

Architect: Marcy Wong Donn Logan Architects
Renovated: 2008
Function: Mixed Use Entertainment, Dining, Office, Visitor Center
Area: 500,000 sq. ft.

Previously abandoned, the Ford Assembly Plant was transformed in 2009 into a contemporary multi-use facility. The structure houses programs ranging from a visitor center, dining, offices and entertainment. Designed and built in 1930 by Albert Kahn, the building was originally conceived as the Ford Motor Company’s assembly plant. Grossing almost 500,000 sq. ft., Kahn utilized the large and prolific windows throughout the façade to daylight the massive space. The plant has historical significance due to the era in which it was built and architectural significance due to being the work of a renowned architect. During World War II, the plant housed wartime production for the US military. Today its program is mainly comprised of a National Park visitor center and the Craneway Pavilion event space which hosts a variety of performances.
Leszczyński Antoniny Manor
Jano Ostrorogo, Poland
Architect: Na No Wa Architecki
Reovated: 2015
Function: Hotel
Area: 96,100 sq. ft.

This building complex includes a rehabilitation center which provides care and medical services. The rehabilitation center is supported by a hotel, catering facilities, cultural events, and underground parking. The entire complex grosses a net area of 96,100 sq. ft. and a net volume of 1,035,249 cubic ft. Due to the structural system, ceiling construction, condition of the existing century stables, and the century granary, the building was not able to be directly adapted for its new functions. Therefore, they needed to be subjected to reconstruction and expansion.
OPERA DE LYON
Lyon, France

Architect: Jean Nouvel
Renovated: 1990
Function: Opera
Area: 180,000 sq. ft.

Originally constructed in 1756, the Opera de Lyon is a stand-alone theater located just a block inward from the Rhone river. The theater was modeled in an Italian style, where the audience seats and viewing boxes form a horseshoe towards the stage. In 1985, the French architect Jean Nouvel was commissioned by the city to renovate and expand the existing theater. Nouvel’s design tripled the space by digging below the existing foundation, gutting out the core, and stacking program on top. Only the exterior walls and the foyer remain from the original theater. The firm explains, “By retaining the older façades, Nouvel linked the building to the surrounding official buildings, such as the adjacent 19th century Hotel de Ville, the Town Hall, Mayor’s Office for the city, and the nearby City Museum, housed in the 19th-century Palais de Saint Pierre.” The expansion includes opera seats, new rehearsal facilities, a restaurant, a fly loft, administration, and workshops. The most visually striking addition to the Opera is the arched steel and glass volume that emerges from the existing building to create a fly over effect resulting in a harmonious connection between old and new.
A series of late 19th century viaduct arches in Zurich, Switzerland were refurbished into a street market for the city by Swiss design firm EM2N and Zulauf Seippel Schweingruber Landscape Architecture. Beneath the arches a series of contemporary art galleries, shops, and restaurants infill the archways to preserve the integrity of the viaduct remains. The primary structure inserted under the 36 viaduct arches is steel clad; a restrained and minimalist material strategy to keep focus on the existing arched and exposed masonry. "The viaduct is more than just a bridge," writes EM2N, "like a mountain chain erected by human hand it appears in the town with a scale derived from the landscape and topography."
THE WATERHOUSE AT SOUTH BUND
Huangpu District, Shanghai

Architect: Neri & Hu Design and Research Office
Renovated: 2010
Function: Hotel
Area: 30,000 sq. ft.

Located by the new Cool Docks development on the South Bund District of Shanghai, the Waterhouse is a four-story, 19 room boutique hotel built into an existing three-story Japanese Army headquarters building from the 1930s. The boutique hotel fronts the Huangpu River and looks across at the gleaming Pudong skyline. The architectural concept behind Neri&Hu’s renovation rests on a clear contrast of what is old and new. The original concrete building was restored while a new addition in COR-TEN steel was built over it, reflecting the industrial past of this working dock by the Huangpu River. Neri & Hu’s structural addition, on the fourth floor, resonates with the industrial nature of the ships which pass through the river, providing an analogous contextual link to both history and local culture.

The public spaces allow the visitor to peek into private rooms while the private spaces invite the visitor to look out at the public arenas. Visual connections of unexpected spaces not only bring an element of surprise, but also force the hotel guests to confront the local Shanghai urban condition, where visual corridors and adjacencies define the unique spatial flavor of the city.