

According to U.S. Energy Information Administration data, buildings in the United States account for about 40% of the nation's energy consumption due to construction, the embodied energy in materials, and electronic and mechanical systems. This is more consumption than either the industrial or transportation sectors, and it demands that architects make wise decisions about building design. **David M. Schwarz Architects (DMSAS)** believes that the best way to achieve sustainability in such a resource consuming industry is to design buildings that last. We endeavor to eliminate the need to demolish and rebuild every few decades. We do this by taking cues from architectural tradition and studying buildings and cities that have stood the test of time.



Yale Environmental Science Center, New Haven, CT, 2001.

DMSAS believes there are a few factors in designing buildings that last. Buildings must be durable, flexible, and efficient. These qualities allow a building to function into a future that is ever-changing and uncertain. However, the functionality of a building is inconsequential if it is not designed for one key factor: the building must be loved. For a building to be loved for more than a single generation or two, it should be timeless, having lasting appeal, beyond any movement or fad. It must be integral to the experience of a place and people must care about it. We believe there are concrete methods for designing buildings that incorporate all of these qualities, and our design process considers every one.

We have our own standards for sustainability, but we support the U.S. Green Building Council's efforts to create a baseline for sustainable design with LEED. All too often we find that LEED is equated with sustainability, when it is only one lens. There are many other lenses, including true life cycle cost and carbon footprint that should be considered when judging sustainability. Our LEED AP staff members are happy to work with clients to take a building through all levels of certification, but we are proud that our commitment to sustainability came before LEED. We have always understood sustainability as something all-encompassing of architecture and urban development. Our staff prioritize sustainability in our daily lives as well as our designs, whether or not LEED certification is involved.

DURABLE:

Durability is primarily about materials. Materials and how they are assembled play a huge part in how much energy goes into a building and how long it lasts. We are careful about the materials we specify, typically choosing a product or manufacturer with which we have experience and can trust. We use many traditional materials like brick and stone because they have been proven to last for centuries. Such materials are especially sustainable because they are typically modular and non-specialized and have a relatively low embodied energy. We study the material traditions of the localities for which we design and select materials that are suited to those places, contextual to the existing architecture, and if possible, sourced from nearby. We also factor in recycled content and true life cycle studies to select the best materials that least impact the environment. We put considerable thought into the materials we choose and how they are detailed because we believe it is the architect's responsibility to make buildings durable.



The Palladium, Carmel, IN, 2010.

Case Study: *The Palladium at the Center for the Performing Arts*

The Palladium in Carmel, Indiana, built in 2010, was designed with durable local materials at the forefront. Its location outside of Indianapolis places it in prime Indiana limestone territory, so the exterior walls are clad entirely with limestone, giving it the strength befitting a monumental public building. The red clay tile roof harkens back to the Palladium's primary precedent, Andrea Palladio's Villa Rotonda in Vicenza, Italy, which has lasted well over four centuries, and stands as proof that traditional materials like clay and masonry make durable buildings.

FLEXIBLE:

A building can only last long enough to be sustainable if it is flexible. Human needs change immensely from generation to generation because of the evolution of industry and transportation. The architecture that we create today should be adaptable so that its function or the city around it can change without the need to tear it down and start over. Flexibility can be implemented in two ways: through adaptive reuse of old buildings that were designed sensibly and durably, and by designing new buildings to be flexible.



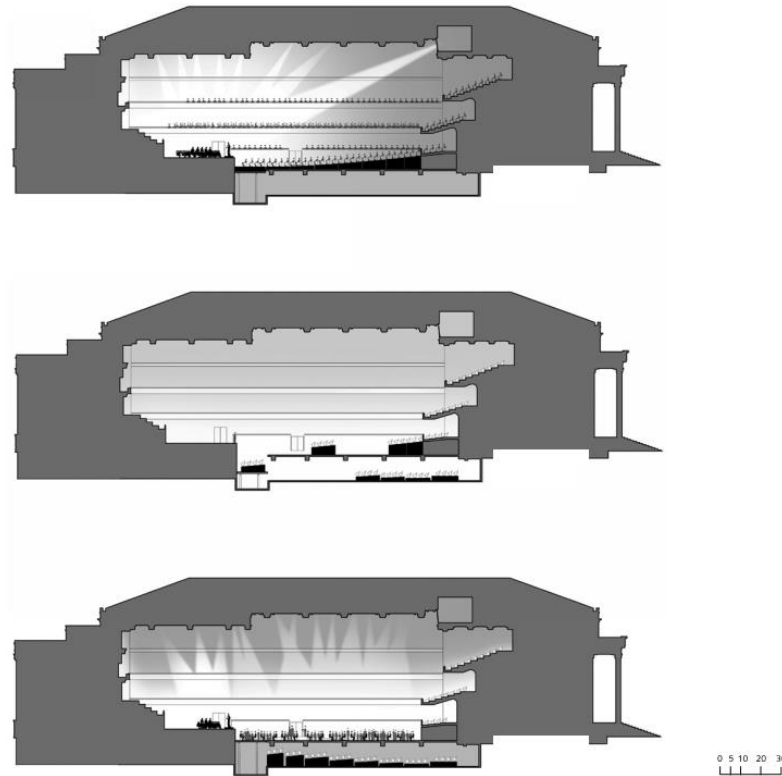
Sanger Lofts, Fort Worth, TX, 1991



Case Study: Sanger Lofts

The Sanger Building in Downtown Fort Worth was the perfect candidate for adaptive reuse. Originally built as a 1920s department store, it has beautiful stone facade details worth preserving, as well as a simple massing and a regular, adaptable gridded plan. It holds the street edge, which is key in a dense urban environment, and adds to the pedestrian experience with storefronts at street level. **DMSAS** had the opportunity to renovate the upper floors into lofts in 1991, saving the old structure from being demolished and preserving a memory of Fort Worth's history. We have incorporated the qualities of the Sanger Building that made it flexible into the new buildings we have designed for Fort Worth, and other downtowns, enabling them to last despite the possible obsolescence of their initial function.

DMSAS has a strong body of work in urban centers because we believe that density and walkability give places life and make them attractive. Our designs always activate the street with openings, retail, or architectural details. We make buildings that are flexible because they serve the street and the pedestrian regardless of function. Even within our buildings that would seem single-purpose, such as a concert hall, we find ways to make them useful to as many people as possible so that the building is an active part of its community as often as possible.



Schermerhorn Symphony Center, Nashville, TN, 2006. This section diagram shows how the main hall is converted from a raked floor with fixed seating to a flat floor.

Case Study: Schermerhorn Symphony Center

The Schermerhorn Symphony Center in Nashville, Tennessee is a prime example of flexibility because it incorporates a system in which the raked concert hall seating can be removed so that the main hall has a flat floor, making it a much more versatile venue. Wedding receptions and large parties vie for reservations when the hall is not scheduled for musical events, making it useful for more than performing arts and more accessible and meaningful to the community. We start with simplicity and clarity of plan, massing, and circulation so that the building can be easily understood by the user and able to adapt to changes in function.

EFFICIENT:

DMSAS views sustainability as encompassing of the whole building and how it fits into its urban environment. Efficiency means much more to us than the latest “green” technologies and materials. Efficiency is a common buzzword when speaking of sustainability, so it’s important to define exactly how it fits into our philosophy. What first comes to mind for many are the “green” gadgets, appliances, and mechanical systems that have become ubiquitous, but efficiency and sustainability are primarily achieved through the places we make. We plan and design for cities that are compact to reduce transportation needs and allow people to live, play, and work within a reasonable pedestrian-friendly area. The true measure of a building’s sustainability must include the energy needed to access it. This is why we love to design mixed-use development and buildings in downtowns. Even if we are starting from scratch, like in our masterplan for a development in Southlake, Texas, we include places for people to live, eat, relax, be entertained, and work all within walking distance. Achieving well-balanced urbanism is the most important part of creating efficient buildings.

Efficiency is crucial to sustainability because it fosters good stewardship of our natural resources. If we can help to redevelop a brownfield site or infill an existing urban grid, it preserves that much more natural landscape to be enjoyed by future generations.



Reynolds Hall at the Smith Center for the Performing Arts, Las Vegas, NV, 2012.

Case Study: The Smith Center for Performing Arts

The Smith Center, built in 2012, redeveloped a brownfield site adjacent to the old downtown of Las Vegas. Not only was this a sustainable use of land, it has also helped to revitalize the area and promote walkability.



Site plan of the Smith Center complex showing attention to the human experience of the place, including a park, pedestrian-only streets, and a courtyard interwoven through the buildings.

We always strive to use renewable resources and natural materials as they ensure that we can continue on into an unpredictable future. It's important to care for the gifts given to us on earth and not take for granted the power we have as architects to determine how those resources are used.

LOVABLE:

Designing a building to be lovable may sound like the attempt at a quality that is too abstract or subjective. While we agree that it is not easy and all the aforementioned factors must coalesce in order to achieve a lovable building, we have found success by once again looking to architectural traditions that have already proven to be lovable. Architecture resonates with people if it reflects them and the things they value. We are much more likely to understand and appreciate a building that has parts and details scaled for humans or that is composed with balance and the symmetries found in nature. We think that buildings should be considered at every scale, designed appropriately for their place in the city and reveal finer-grained details as a person draws nearer.



American Airlines Center, Dallas, TX, 2001.

Case Study: The American Airlines Center

The American Airlines Center in Dallas, built in 2001, is an example of this idea of scales. It can be appreciated while driving by on the highway because of its monumentality as a grand public building, scaled with the intention of welcoming many people. As a pedestrian approaches, the great mass of the building is broken down into smaller parts with local symmetries that are comprehensible from up close while avoiding dullness of being too similar or repetitive. The textures, iconography, light fixtures, and fenestration are all carefully designed to enrich the experience as one approaches or passes by and together make the place memorable. The AAC also accomplished much good for the city by redeveloping a brownfield site of old rail yards and by establishing connections to Dallas's existing street grid.

Careful study of context and precedent is another part of making a building lovable. Just as the scaling and symmetries of a building relate it to the human body, designing to relate to a local way of building or to continue a longstanding tradition within a building type resonates with a sense of civic pride.



Details and ornamentation on the American Airlines Center.



1718 Connecticut Avenue, Washington, DC, 1979.

Case Study: 1718 Connecticut Avenue

One of the firm's early projects for a mixed-use building in Washington, D.C., 1718 Connecticut Avenue (1979), set the firm's course for creating new architecture that respects its neighbors and the materials, textures, and scale of the neighborhood. It is clearly a modern building, but it is woven into the neighborhood's fabric and preserves the feeling of the place. **DMSAS** is careful to avoid architectural fads and instead aims to design buildings that are timeless. We embrace modern technology and trying new things, but only so long as we are able to maintain the history and feeling of the context. Local precedent is key, but national or global precedents can also help create meaningful architecture that people care about.



Nancy Lee and Perry R. Bass Performance Hall, Fort Worth, TX, 1996.

Case Study: Nancy Lee and Perry R. Bass Performance Hall

In designing Bass Performance Hall in Fort Worth, Texas, great performance venues of Europe and the United States were studied to learn how such a building can function best in an urban fabric and evoke the grandeur of those places that have inspired art and music for centuries. The design of Bass Hall connects it to the tradition of those great historic halls and grants it extraordinary meaning as part of the continuum of Western civilization.

Finally, places are lovable when they bring communities together to unite, inspire, and create memories. **DMSAS** has great pride in our projects like Sundance Square in Fort Worth and our civic centers, performing arts venues, ballparks, and arenas. These projects will last because they have become part of how communities identify themselves. We are thrilled to have seen our projects featured on the cover of a phone book, on local government websites, and in couples' wedding and engagement photos. Our greatest successes come when our work makes people proud of their city or town and when our designs serve them well for a very long time.

CONCLUSION:

David M. Schwarz Architects achieves sustainability by considering the big picture. We look at the whole city before we focus on the building. We think about a material's life cycle from its raw form to its place within our design. We design flexible buildings that will have appeal and remain useful in future generations. We seek to serve and please people first and only consider technology and design methods that facilitate that end. Green is a color, not a style, and we believe truly sustainable buildings need not wear their sustainability on their sleeve. Instead, we evaluate all of our projects for durability, flexibility, and efficiency, and design them to be lovable because we believe that those are the best metrics to gauge true sustainability. We focus on producing timeless architecture that will outlast the passing trends of the design world. We are confident our work lasts because it is well-planned, well-built, and people find it to be worth keeping.



Sundance Square, Fort Worth, TX, 2013.