

Changing Face Value: Design Decisions and the Campus Image



by **Richard D. Rush**

Educational buildings have a much more valuable role to play in the educational process than just serving as a background for daily human interchange. In a very real sense, they are designed to substantially enhance the learning process. One real test of a continuing campus design process is, therefore, whether a vision has been successfully enunciated, executed, and preserved. In a vision, all of the ingredients of the design can be unified into a single composition.

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When effectively realized, the vision becomes a physical manifestation of an idea. Since an educational institution is a purveyor of ideas, a vision is always appropriate. Conversely, a good vision causes ideas to happen. When it stimulates the imagination, the physical manifestation and the educational purpose of the buildings achieve a single significant resonance. Most of the time, however, facilities management takes place at a very different level.

Educational institutions take a beating. Hundreds of shoes beat on the floors. Furniture is regularly mistreated. Doors, windows, and locking devices are banged shut. Mechanical systems and boilers move great quantities of air and eventually simply wear out.

Upgrades are another frequent cause of changes. Recently, the most dramatic influence to impact school interiors has been the insertion of high-tech equipment and wiring into low-tech space. Other upgrades to comply with revised health, safety, security, energy, or accessibility standards take their toll on entryways, pedestrian circulation, and the general construction of the building envelope.

All of these reasons can be the cause of the renovation or renewal of a building. However, the most difficult circumstance, from a design point of view, often centers around revising the building façade. That is where the “vision” can be most profoundly and publicly stated. More precisely, both campuses and individual educational buildings wrestle constantly with trying to achieve a sense of campus unity from one building to the next—continually reconciling the old or aging with the new.

Too often, an either/or choice is made. First, cost reduction is the reason frequently given for choosing to ignore existing contextual or historic circumstances. When the choice to respond is made, it is quite common to let the exterior of an educational building reflect a 19th or 20th century inspiration while the interior is firmly planted in the new 21st century. The other choice, of course, is to try to mix the new with the old.

The basic palette of design possibilities for revising and responding to an existing façade is a simple one.

- **Materials:** Repeating, recreating, or simulating the materials already present on the building.
- **Colors:** Attempting to duplicate a color from one building material to another.
- **Proportions:** Most commonly, the relationship of the short side to the long side of a rectangle.
- **Geometries:** This usually means reusing a non-rectangular, two-dimensional geometrical theme.

Materials

The material most typically repeated between buildings on a campus is a specific clay brick. If the campus is in fact over 100 years old, finding replacement bricks exactly the same size, shape, and color can be a challenge. To complicate the issue, the color of the mortar and thickness of the mortar joint can substantially change the overall perceived color of a

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brick wall—even when identical historic bricks are used. If a mortar joint is finished with a half round tool, the shadow cast by the brick in the course above it is different than when the full joint is “scraped” or “v” shaped. More dark shadows in the joints darken the entire brick wall.

Colors

Material colors from another historic building period are difficult to match. Even glass tints or coatings are problematic. No two glass companies use the same colors even today. Paint colors change with atmospheric variation like acid rain or bleaching by the sun. Different sides of the same building can therefore vary in color due to exposure to the sun. Nevertheless, quantities of the same color paint can be stored on campus, and once a good match is found, color can be successfully preserved.

Proportions

The existing proportions of façades, column spacings, doors, and windows set a proportional standard for a build-



The façade of the Haggerty School, Cambridge, Massachusetts, shown here, is actually a replica of the historic front façade of the previous building. The image of the building was too important to lose. Identical materials, proportions, geometries, and colors were used.

ing. The rectangular bays and gaps are both openings for views out of the building and a way to look (through a colonnade perhaps) into the building. Since buildings always have windows and doors, proportions are usually the easiest and least expensive architectural element to emulate.

Geometries

Non-rectangular geometries (circular and/or triangular geometries) are often found in plan and elevation of educational buildings. Circles in plan tend to focus a spatial event. Angles are often used to change direction, whether it is a

pedestrian walkway or reflected light. Precise curved lines are often labor intensive both in the shop and on the site, and they are usually worth the trouble when done well.

There is a more subtle set of secondary design elements to preserve from an existing building façade to a new addition.

- *Textures:* The texture of a surface is most elegantly revealed when light falls across it and shadow patterns are formed.
- *Rhythms:* The repetition of contrasting sizes or shapes can set up the equivalent of a musical beat on the façade of a building. Two buildings can share the same rhythm and be from different historic settings.
- *Stylistic Detailing:* A combination of materials and geometries that have been inherited from other buildings or other times.
- *Human Scale:* Scale usually refers to proportional relationships that create comfort levels between human dimensions and a building. A building is a satisfactory human scale when the building size does not intentionally intimidate its occupants.

Textures

The richest textures come from the use of natural materials and usually pertain to walls.

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In order to avoid detracting from the classical precedent of the campus, the new Visual Arts Center at the Salisbury School, Salisbury, Connecticut, was lowered into the side of the hill. The vocabulary of colors and proportions is maintained while the geometry of the new building varies. The neighboring library building is also new but literally reflects the classical campus style.

Split-faced stone masonry, for example, is notorious for single-handedly enriching an otherwise plain façade.

Rhythms

Architecture of the Italian Renaissance gave birth to a rich spectrum of rhythmical façade possibilities. A campus building that is Italianesque may therefore contain a variety of rhythms. However, even the simplest building from the period of the Revolutionary War consciously alternates angled stone lintels above windows and creates an effective rhythm.

Stylistic Detailing

The most common stylistic historical reference used on American buildings originated in Colonial England—which in turn comes from ancient Greece. It is fascinating that carved wood forms were converted to stone by the Greeks and then converted back to wood by later generations, especially the British. What Americans have done in recent years have converted the wood-reference forms into fiberglass.

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The texture of the historic stone wall of St. Thomas Church, New Haven, Connecticut, remains the highlight of the building even after a more modern glass and metal day school addition is added adjacent to it. The colors and proportions are preserved from new to old. Lowering the lintel height of the addition changes the scale of the building for children's use. Repeating the roof seams and windows causes the new building to offer a supporting rhythm for the older building.

Human Scale

In 19th century America a variety of new building uses and forms emerged—along with the technologies to serve them. Steel was invented, as was the elevator. The classical orders

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were ill-suited to serve the new building forms. Generally speaking, the precedent for college campuses frequently remained classical following Oxford, Cambridge, and even Jefferson's work at the University of Virginia. The use of walls of ivy as a stylistic bridge between buildings became synonymous with the college campus. However, a modern college campus is frequently the aesthetic descendent of the transformation to a rectangular geometry with little ornament that occurred in the 20th century. A result of that lineage can also be the gradual disappearance of the evidence of the human scale in the making of a building. An inhuman campus also has a cost.

Cost and value performance of a building façade may actually present itself as the act of parents and prospective students walking through a campus (or viewing a virtual website tour) and appreciating the quality of what they see. It is not a far-fetched notion. A private school campus that recently transformed itself architecturally has tripled its number of applications for admission in five years. Alumni also love to return to a school that has been cared for and memories have been preserved.

The cost of simulated materials is intended to compete successfully with the real thing and reduce the initial expenditure. Where full-size bricks were used in original buildings, thinner facing bricks adhered with epoxy can achieve a similar visual result. Fiberglass fluted columns and column capitals, especially remote from immediate face-to-face contact, can perform reasonably well as visual reminders of historic detailing. Precast concrete units instead of stone offers the possibility of a stone appearance with a cost benefit. Glass fiber reinforced concrete (GFRC) products can further simulate precast concrete or

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The new entry to the Fay School, Southborough, Massachusetts shown here reoriented the flow of circulation in the building. The new brick matched the original brick but the curvilinear geometry was used to soften the sawtooth geometry of the roofs.

stone members. Because they are sprayed into a form, such products are much lighter and easier to make into curved surfaces.

It is important to note, however, that matching existing concrete colors with that of a new GFRC unit can be difficult. Similarly, using a fiberglass column next to an original wood column may produce different surface results. When simulated materials are used, they are often factory produced. What this means is that, like computer-produced music, there is a certain precision that never occurs when the human hand is involved. For example, identical bricks that are epoxied into place can look too perfect.

Image

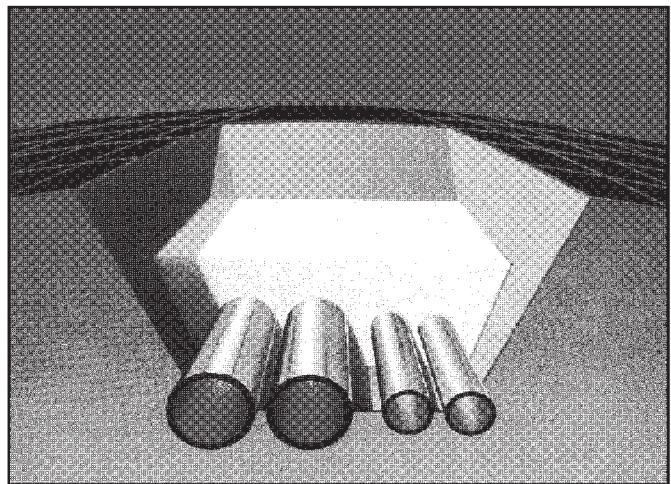
The ultimate result, in more common parlance, is the "image" that the building, and therefore the educational institution presents to its students and the public at large. The term is not unrelated to a similar purpose in scenery in a stage set. Within a short period of time, the appearance of the building can convey a broad range of values. In the case of a dramatic production, an audience uses the scenery to key into both the given historic period and emotional atmosphere even before the characters arrive on stage. Once they do arrive on stage, their activities are supported by effective scenery. If there are famous alumni, students get a buzz from walking in their footprints, in a sense performing on the same stage. 🏰

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