

Material benefits

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Whether cost, comfort, acoustics or durability are the main concern, the choice of seating fabric has implications that cover all areas

There is no refuting the successful combination of a striking fabric with a great chair design. Wood and textile have a long history of setting the mood for any auditorium. The chair invites, envelopes and adds to the total program experience.

There are two camps rampant in the auditorium seating design process. One faction heads straight for the budget-slanted fabric that caters towards function not form. The other aims its sights on how the overall appearance of the chair entwines with the unified auditorium design.

The function-over-form camp believes that the auditorium design has a distinct budget and the facility is destined to be an environment of heavy (and sometimes abusive) patron traffic. Typically, these are planetariums, high school- or university-range drama auditoria, military or municipal facilities, or community theatres on a local level.

For these venues, it is wise to consider using a fabric that contains a high abrasion property. Examine the fabric to ensure that the abrasion factor is a minimum of 250,000 double rubs. (The double rub is the fabric industry's indicator of how many times a contact device can pass forward and backward – the equivalent of one double rub – against a textile before it begins to demonstrate signs of yarn breakdown.) To achieve this high abrasion quality, fabric mills turn to synthetic yarns to create such products.

Fabric made with polyolefin (a petroleum-based filament yarn) is very popular in high-traffic venues such as commercial cinema houses and sports venues. This type of fabric is long-wearing and easy to clean with household solvents or a mild bleach solution. It is also a very economical product to use on auditorium seating. Historically available in solid or multi-color box weave patterns, many mills are now expanding their polyolefin lines to offer distinctive patterns and textures so that owners are no longer relegated to simple appearances.

Design statements

The other demographic of the auditorium seat creators are the specifiers who require that the venue have a unique look and so allocate additional monies for inclusion of a fashion-conscious textile. The fabric can be a vibrant or subtle pattern approach, a textured look or simply to use a luxuriant product on the seats. In most cases, the pattern has been carefully chosen to match a design motif or color palette

of the venue. The creativity in this situation has no bounds. Even within a specified budget, single fabric or fabric combinations can add flair to the auditorium.

Those considering making a design statement via chair design should get in contact with their local fabric vendors. Fabric

Commercial-grade economic fabrics need not be “plain Jane” in their presentation

mills are known for following fashion trends to offer the latest colors and patterns. In the space of six months or so, at least five or six new selections may come and go, so it is worth visiting local vendors regularly.

Cut the cloth to fit

So how do the options available suit the different fabric specifications and how will they best suit the chair product?

Commercial-grade economic fabrics need not be “plain Jane” in their presentation. You can use two different colors of the same pattern on the chair. Another approach is to outfit the auditorium with two or three different color schemes. One color fabric could be used on



[Above] The seating fabric is integral to the overall color scheme of the Amatur Theater in Fort Lauderdale, Florida

[Right] Utilizing a single color scheme on the chair, the mixed use of a patterned mohair on the back and solid wool fabric on the seat, adds a real depth to its design



the main floor, with a different color of the same fabric in the parterre, mezzanine or loge area and a third fabric in the balcony levels. Some installations have rows of chairs in the auditorium, each with one of two or three different colored chair fabrics. If a very specific color layout is planned, close co-ordination with the auditorium seating manufacturer will be needed. This means that if there is an immediate need for a different-width chair to complete the installation (typically due to some unforeseen architectural anomaly), then this will not disrupt the completion of the theater.

Chairs can also be dressed up by using a special seat and back cushion stitching pattern over the solid fabric. Most seating manufacturers can accommodate these custom patterns. Using pleats and tufting treatments adds a special look, as does a co-ordinating fabric insert integrated into the seat and back upholstery cover. So even with contract-grade fabric, it is possible to enhance the look of auditorium chairs.

Finding a pattern

With patterns and upgraded fabrics, the sky is the limit for chair design. Mixing patterns and textures along with upholstery treatments on

the back and cushion upholstery gives a distinctive look.

Historic renovations can benefit from using a pattern indigenous to the era when the theater was built. There are occasions where fabric mills are willing to re-create the fabric from the existing chairs using current yarns and stronger color palettes. This is a terrific way to bring today's technology with the look of yesteryear. For example, art deco incites use of wavy lines, distinct round shapes or sharp angles. Art nouveau looks for fluid and curved lines. Victorian and Edwardian theaters love floral and tapestry patterns. If the facility was built during the 1950s or 1960s, then colors and patterns from the "atomic age" are the way to go. Whether the theater is a historic renovation or a new facility, searching for a fabric pattern design that pulls out an architectural motif is well worth the effort.

The fabric on the seat plays an important role. It must not only match or co-ordinate the back cushion fabric, but must serve a utility purpose to the owner. The seat cushion fabric suffers the most abuse from the patron due to the "fidget" factor. The more the patron fidgets, the more abrasion to the fabric, shortening its lifespan. The seat cushion must also work in partnership with whatever quality of foam was provided by the seating manufacturer.

Seat assemblies that feature a hard foundation on which open-cell foam must reside may compact after time depending on the quality of foam and the amount of traffic in the venue. If the selected fabric has a tall pile or other susceptible qualities, it is worth considering whether the compacted foam situation may also cause wear to the pile of the fabric as it comes in contact with the seat pan or seat shell from lack of foam support. Quality foam, such as cold-molded species, residing on a foundation of springs or other supportive motion-allowance engineering can last infinitely longer and therefore accept more of the impact absorption and motion from the patron. Fabrics with a tall pile tend to show the first signs of wear and flattening. A low-rise pile tends to work best in the overall lifespan and appearance of the seating.

If tufts, pleats or stitching patterns are being used and there is a pattern involved, check with the seating manufacturer to determine the process to create the upholstery detail. If the selected pattern will suffer distortion based on the resulting pull of the fabric from the upholstery stitching, pleat or tufting, it may be necessary to review the choice. The seating manufacturer can suggest possible alternative approaches to alleviating the potential distortion. It will all depend on the pattern itself, the backing composite that the fabric mill uses on the textile and, of course, the heaviness of the fabric.

If a pattern weave or color hue cannot be found to meet the project's needs, the local fabric representative might ask the company to alter an existing pattern. Many larger fabric mills will be happy to work to match colors, change a single yarn color or even adjust the weight or weave of a pattern. History shows that the larger the fabric requirements for the

project, the better chance there is of getting adjustments produced at no additional cost.

Sound choices

If the venue is an acoustically sensitive facility, it is advisable to consult with a certified and experienced acoustician to discuss fabric and foam requirements. There are occasions when the optimal seat support must be abdicated in lieu of using less sound-absorptive materials to help the facility acoustics. The guidance of an acoustician can help to make the best decision.

When looking for an appropriate color, the overall appearance of the chair must be taken

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into consideration. Most live theaters tend to use black accent colors in the plastic components (if applicable) and metal epoxy powder coating because black reflects less light. This should be taken into account when selecting the color of the fabric. This is especially critical for the selected stain for any wood components. The combination of the wood species and specified stain is crucial, particularly if the wood species darkens over time with air and humidity contact. Cherry lumber and veneer is a good example of a wood species that darkens over time. Maple, beech and ash species tend to work best with light-colored or clear stains. Mahogany and rosewood fare better when relegated to deep, dark and rich stains. It also helps to compare fabric options with the chair components' color options in ambient light. A combination might look great in fluorescent lighting but suffer in transition to the facility installation.

Learn from experience

Once the fabric options are narrowed down it is best to discuss them with the chair manufacturer. It is important to determine if the fabric will be suitable for a fixed auditorium seating product. Many manufacturers will request that you provide two or three yards of the potential fabric to run an upholstery test. This test resolves two issues:

- How the fabric withstands the typical mass-production upholstery process;
- If there is a pattern involved, how should the fabric pattern expected to lay on the chair cushions and what will that do to the overall yardage requirements per chair.

Typically, the seating manufacturer will ship the chair to the owner for their review and approval. Additionally, the manufacturer will probably require written approval from the owner to proceed with the production process.

It is at this time that the manufacturer

provides their feedback as to the results of the upholstery process. If the manufacturer discourages the use of the fabric due to unraveling, puckering at the seams or fabric lay on cushion issues, it is best to search for other fabric options rather than risk long-term regrets and costly or repetitive maintenance issues.

Safety issues

It is a prudent idea if the auditorium is going through a renovation process to consult the local fire and/or building authorities to determine if the renovation process will comply with current codes. If so, it is important to research the typical compliance of the selected fabric as it may be necessary to include the cost of adding a flame-barrier cloth to the scope of work to meet compliance.

Hospital, medical and special patient-care facilities with auditoria or conference rooms may find themselves in need of a fabric suited to withstand healthcare considerations. Fabric mills offer fabric patterns dedicated to this type of need or can apply special treatments to backings and yarns to comply with the bio-resistance required.

Touch of class

For the true look of elegance, very few fabrics surpass the beauty and durability of mohair. These properties do not come without a price; mohair is one of the premium-grade fabrics. Many historic theaters used mohair on the chairs to withstand the test of time. It is available in solids and with some vendors, patterns. It accepts custom dye lots quite well and is easy to upholster.

If mohair is outside the facility budget, consider alternative premium-grade fabrics of substantial weight. Fabric vendors may offer a heavy wool fabric with a significant pile to co-ordinate with the mohair. Wools generally are priced less than mohair so some auditoria have outfitted their chairs with mohair on the back cushion and heavy-grade solid wool (custom dyed to match the mohair) on the seat cushions. The overall look is graceful, carries a high level of durability and best of all, doesn't cost as much as using all mohair.

If the cost of mohair is outside the budget, but a solid fabric with a certain amount of pile to it is still required, consider the use of synthetic velour. These are commonly used in commercial cinema houses and have proved to be quite durable for high-traffic venues. Most synthetic velours are priced within affordable budget concerns.

Chenille and bouclé fabrics should be used sparingly in a public auditorium. While beautiful to behold, the inherent weave properties of these fabrics may suffer from constant use. Fabrics like these are better suited to minimal-use auditoria such as municipal conference rooms, private screening rooms or corporate auditoria.

Fabric combinations of colors and textures are nearly as myriad as snowflakes. Presentation adds to the initial impact of the theatre experience. Have fun with the creative process. It's a terrific journey from the vision to the reality. ●