

Rethinking approaches for vision and daylight control

No longer the domain of interior designers - shading and privacy are now key architectural design elements

From commercial to residential to institutional design, architects are increasingly looking beyond traditional interior shading and privacy solutions - like venetian blinds, curtains and retractable shades - to incorporate vision and daylight control as part of a building's architectural envelope. Shading and privacy solutions are no longer a design afterthought, but a strategic consideration for the overall control of daylight, vision, heat and sound.

It's not just about reducing glare anymore – it's about reducing the impacts of solar heat and related air conditioning costs, optimizing daylight design to leverage natural light and reduce artificial lighting costs, and providing flexible options for privacy.

Once the domain of interior designers, shading and privacy have now become a key architectural design element for progressive architects who want to create sustainable and livable buildings that will stand the test of time.



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Fenestration - the new frontier

Where is it best to incorporate solutions for vision and daylight control? Within your fenestration design – integrated into glazing structures.

Integrated vision and daylight control marries bladed shading devices with glazing into sealed glass units. This provides a simpler, more durable and design-friendly solution that eliminates most requirements for cleaning and maintenance.

Integrated cordless louvers

Integrated cordless louvers are the ultimate powerhouse of shading solutions. They typically deliver flexible heat and light control to manage the quantity of light transmission to provide maximum energy efficiencies. Integrated louvers can provide natural illumination while still reflecting the light back outside to offer ideal wall and fenestration solution for commercial buildings, art galleries, museums, libraries and other areas where light control is an absolute necessity.

A comparison

How do integrated louvers compare to traditional shading and privacy solutions? The following table examines the advantages of each on a feature-by-feature basis:

Design Consideration	Advantage Integrated Cordless Louvers	Advantage Traditional Solutions (i.e. blinds, curtains, retractable shades)
Control of Privacy Ability to control vision and provide optimal privacy	<ul style="list-style-type: none"> • Completely adjustable privacy and visibility levels • When vision is required, louvers offer greater visibility when fully opened (louvers are larger and offer greater spacing) 	<ul style="list-style-type: none"> • Blinds have holes and spaces around cords and strings • Curtains and shades can be easily displaced, may not close completely and are not adjustable • Traditional shading solutions can get easily misaligned leaving gaps and openings
Control of Daylight & Glare Provide basis for effective daylight design	<ul style="list-style-type: none"> • More effective and flexible solution for daylighting design • Aluminum louvers can better reflect lighting to act as a light shelf • Can be angled to manage or completely block glare 	<ul style="list-style-type: none"> • Blinds, curtains and retractable shades block some glare but offer little daylighting support • Prone to light seepage, gaps and lack of flexibility
Control of Heat Ability to manage heat and control UV rays	<ul style="list-style-type: none"> • Block more light and heat • Contribute to LEED® credits • Can be angled to manage or completely block glare and fully control accompanying heat 	<ul style="list-style-type: none"> • Traditional solutions don't close completely • Light leakage heat can seep through • Offer minimal control of heat

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<p>Control of Sound Ability to mitigate sound transfer and ensure tranquility</p>	<ul style="list-style-type: none"> • Aluminum louvers help reduce noise levels • Thicker airspace attenuates more sound 	<ul style="list-style-type: none"> • Provide virtually no sound barriers
<p>Open View Ability to raise shading solution</p>	<ul style="list-style-type: none"> • Louvers can be angled for maximum vision control, but cannot be raised for an open view 	<ul style="list-style-type: none"> • Traditional solutions can be raised or drawn aside for an open view
<p>Ease of Use Reduces risk for damage and misuse</p>	<ul style="list-style-type: none"> • Easier to use • Completely cord and string free 	<ul style="list-style-type: none"> • Cords and strings prone to damage and misalignment
<p>Optimal Hygiene Supports germ and dust-free environments</p>	<ul style="list-style-type: none"> • Hermetically sealed louvers significantly reduce risk for infection and allergies • Ensure dust-free environment 	<ul style="list-style-type: none"> • Blinds, curtains and retractable shades are not hygienic • Require higher cleaning costs • Less preferable for healthcare environments
<p>Maintenance-friendly Requires minimal maintenance</p>	<ul style="list-style-type: none"> • String and cord-free design virtually eliminates cleaning and maintenance requirements • Hermetically sealed construction slashes cleaning costs 	<ul style="list-style-type: none"> • Blinds and retractable shades are prone to damage • All traditional solutions require frequent cleaning • Less durable and can require maintenance and replacement
<p>Energy Efficient Supports sustainability and LEED benefits</p>	<ul style="list-style-type: none"> • Offer highest levels of energy efficiency • Act as reflecting medium to reduce excessive solar heat and, correspondingly, air conditioning requirements • Sun rays are reflected back outside before penetrating into the interior space to prevent heat build-up indoors • In cold climates, the louvers can be angled to capture the sun's rays to let them penetrate into the building for maximum solar heat gain • Proven to contribute to LEED® 	<ul style="list-style-type: none"> • Traditional solutions help block glare and light, but offer minimal energy efficiencies
<p>Retrofit-friendly Ideal for retrofit projects</p>	<ul style="list-style-type: none"> • Thinner design options can be used in retrofit environments, but typically offer less flexibility 	<ul style="list-style-type: none"> • Offer more flexibility and are often easier to size or adjust for retrofit design
<p>Durability Ability to stand the test of time</p>	<ul style="list-style-type: none"> • Aluminum louvers provide the highest levels of durability and reliability 	<ul style="list-style-type: none"> • Traditional solutions are flimsier and damage prone; less durable over time

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<p>Ease of Operation Reliable and sturdy operational mechanics</p>	<ul style="list-style-type: none"> • Cord-free operation • Easy to use thumbwheel or crank operators • Ideal for areas requiring anti-ligature solutions 	<ul style="list-style-type: none"> • Cords and strings are greater risk for tangling and misalignment
<p>Esthetics Ability to enhance any design approach</p>	<ul style="list-style-type: none"> • Provide greater options for modern design approaches 	<ul style="list-style-type: none"> • Flimsier traditional solutions can detract from overall architectural design
<p>Return on Investment (ROI) Ability to pay for itself; best overall value</p>	<ul style="list-style-type: none"> • Provides better light and heat control – solar heat barriers ensure optimal thermal performance and reduce HVAC costs and energy consumption • More durable construction and components ensure long-term durability and low maintenance requirements 	<ul style="list-style-type: none"> • Lower upfront costs, but less cost effective over time • Higher maintenance and replacement costs

Every building project has its own particular needs and design aspirations. Architects need to think about a number of influences for vision and daylight control - what the building is for, who will use it, how it will be used, climatic impacts and much more.

Managing privacy and the impacts of daylight are critical elements of this overall design.

From an architectural perspective – integrated louvers have the advantage.