



ARCHITECTURE

EHLINGER & ASSOCIATES

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Ehlinger & Associates extends Seasons Greetings to all of our friends who receive the newsletter. Merry Christmas, Happy Hanukkah, and Happy New Year.

Zion Lutheran Church

Zion Lutheran Church, Fredericksburg, Texas is this issue's print of a sketch by Ladd P. Ehlinger, AIA of an iconic "Texas Hill Country" church. This church was built in many phases: the nave and chancel were first constructed in 1853; the bell tower and a new chancel were designed and constructed in 1884 by Adolph Wehmeyer in the Richardsonian Romanesque style that was the first architectural style native to America. Then in 1953 a Sunday school annex and fellowship hall were constructed adjacent to the sanctuary. In 1959, air conditioning was added and the balcony was lowered and enlarged, new pews were installed, the stained glass windows were replaced, and the pipe organ was rebuilt and replaced. In 1963, the church added three bronze bells, replacing the previous single cast iron bell.

The church contains a Thorwaldsen statue of Jesus Christ which was installed in the chancel in 1908. The stained glass windows in the nave all have special meanings in the Christian tradition of using the stained glass for catechism: the Advent Window commemorates the arrival of Christ in Jerusalem on Palm Sunday, and the Christmas Window signifies the humanity of Christ in his humble birth on

Zion Lutheran Church, Fredericksburg, Texas
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Zion Lutheran Church

earth. The Holy Week Window celebrates the institution of Communion. The Easter Window signifies new life through the resurrection of Christ. The Pentecost Window connotes the spread of the Gospel. The Trinity window illustrates the concept of God in three persons - Father, Son and Holy Spirit. Finally, the Protestant Reformation Window illustrates Castle Church in Wittenberg, Germany where Martin Luther nailed the 95 theses challenging certain Catholic practices on October 31, 1517.

The Richardsonian Romanesque style of architecture was concocted by Henry Hobson Richardson, a native of Louisiana. He was born on a plantation in St. James Parish near Vacherie in 1838, and grew up in a townhouse in Julia Row in New Orleans, attended the University of Louisiana (predecessor to Tulane University) before transferring to Harvard University, and subsequently to the Ecole des Beaux Arts in Paris where

he obtained a degree in Architecture during the American Civil War years. He then established an architectural practice in New York City initially, and later in Boston after winning the commission to design the Trinity Episcopal Church. The style that Richardson developed matched the strength of the new nation, with robust stonework with chamfered edges and a rough hewn surface texture, large wide banded semi-circular arches framing wide openings (much wider than the European Romanesque style), turrets and towers to add romance and excitement.

The style was such a hit that commissions poured into the firm in locations all over the country. Public buildings such as courthouses, city halls, churches, libraries, train stations, and even one of his most famous buildings, the Marshall Fields department store in Chicago influenced other architects to mimic the style and further develop it. Louis Henri Sullivan of Adler & Sullivan admitted the influence as did Frank Lloyd Wright who worked for Sullivan. Richardson never returned to New Orleans or Louisiana, and died an early death at age 47 of kidney disease, but he was probably the most influential architect of the 19th century, having influenced the national aesthetic so much that this style was used most everywhere, even as far away as Fredericksburg, Texas. Following Richardson's death, a building that he had designed for another location was adapted for a site at Lee Circle for the Howard Memorial Library, and still stands there today as the only one in New Orleans.

Ladd P. Ehlinger, AIA

Pest Control

Pests can be an ongoing issue for many facilities, from insects to rodents to birds. Dealing with them often requires a great deal of maintenance and planning, and with the increasing regulations and public concerns over chemical pesticides and animal cruelty, can often be a difficult task to achieve.

Identification

The first tactic in tackling an interior pest issue is properly identifying the pest; their habits and diet can be important in identifying the proper extermination, removal, and prevention methods. For example, drywood termites vs. subterranean termites. Drywood termites nest inside the wood they are consuming, while subterranean nest in the ground, and only tunnel into the wood. Subterranean can generally be exterminated and prevented with ground traps, but drywood need to be poisoned directly in the building.

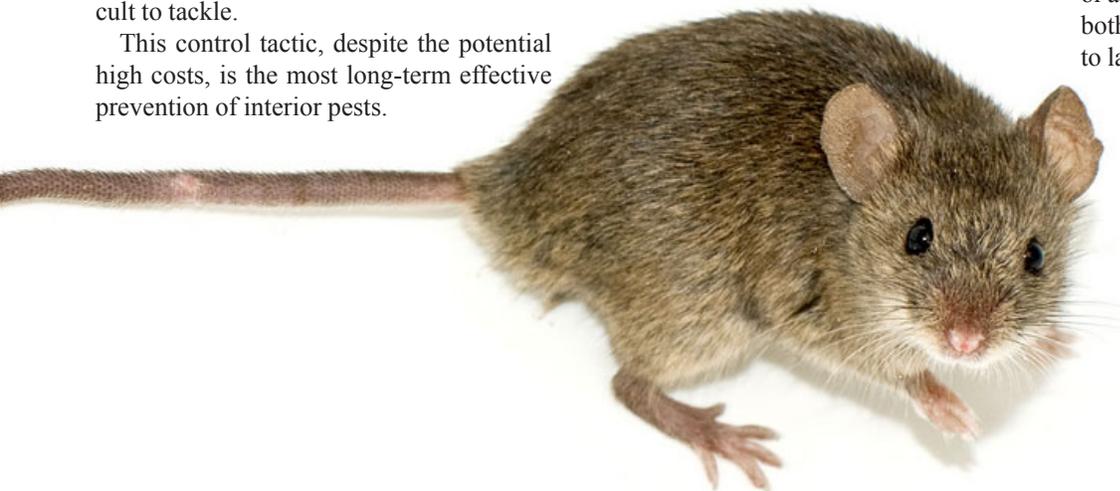
Cultural Controls

The next strategy is termed 'cultural control'. Once the pest has been identified, if the causes are from the uses in the building, then modifying placement of sources of pest attraction, and implementing a stricter cleaning schedule can begin to bring a problem under control.

Physical Controls

After this, physical controls can be implemented. This primarily involves locating and sealing cracks and penetrations to exterior walls, which sounds simple enough, but can often be a complicated and expensive process. For example, if there is a lot of built-in furniture and cabinetry and it is discovered there's a gap between the floor and the wall - this would involve removing all of the cabinetry and sealing that opening. In older buildings, this step can be particularly difficult to tackle.

This control tactic, despite the potential high costs, is the most long-term effective prevention of interior pests.

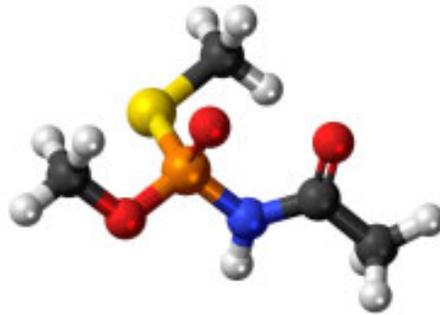


Mechanical Controls

Then, there are mechanical controls that can be implemented, referring to traps or electronic devices that can capture or kill pests. The smarter the pest, the less effective mechanical controls will be.

Biological Controls

Another control method is using 'biological controls', which is a relatively new tactic. This involves targeting a specific pest with a predator, pathogen or parasite. For example, a fungus (*M. anisopliae*) is now used in many cockroach bait traps. Also, cockroaches don't like bay leaves. Another example would be using a trained falcon to ward pigeons or other birds away from a facility, hopefully teaching them to stay away.



Chemical Controls

Finally, and increasingly being stigmatized to a last resort position, are chemical controls. Chemical insecticides, animal poisons, and herbicides are being more and more restricted to use only as a control measure once the pest population is beginning to cause damage to a structure or is affecting the health of people within the structure.

The long list of examples of side-effects and unintended consequences from the use of chemical controls has soured them from a primary application, along with the resistance to them that pests have built up over the years.

The Birds

Where architects are concerned with pest control, from a new design or rehabilitation viewpoint, is in the physical controls. Besides sealing a building tightly to prevent infiltration into the structure, there are several exterior controls that can be implemented, primarily for birds.

Birds can cause a lot of damage to a building. Their excrement is acidic, and can damage stone, masonry, and even metallic siding - not to mention the droppings are an eyesore and a health hazard.

Birds like to 'loaf', which is when they sit on the edge of a roof or windows, and most of the prevention methods are targeted towards this behavior. Lining the edge of a roof or parapet with spikes is often enough to prevent this. For smaller birds, an electrified wire can be placed. For larger birds, a series of unevenly spaced wires can be strung, so they can't get a good footing.

For ledges that are narrow, adding a sloped edge to the top will prevent birds from even being able to land.

For larger cavities and setbacks on the face of a building, netting can be used to prevent birds both from loafing and nesting.

When dealing with nesting birds, it's important to identify them before attempting to remove them or implementing other controls, as many are federally protected.



For wider open spaces, like a flat roof, where birds are a problem, a 'bird spider' or a 'bird sweep' can be used, which acts as both a scarecrow and a physical deterrent to landing.

For maximum effectiveness, when dealing with pests in a building, it's important to look at the architectural aspects in addition to relying on the traditional methods of pest control.

-R. Perrin Ehlinger, AIA