Clinging Plants and Historic Buildings

Clinging plants, which are more commonly known as vines, are frequently found on and around historic buildings. For years, architects and gardeners have advocated their use. Vines have been used to ornament features such as entryways, screen undesirable and unattractive views, and link structures to the surrounding natural environment. Before the advent of air-conditioning, vines were used to shade the building surface and reduce solar heat gain. Vine-covered walls obtain a patina of time that John Ruskin appreciated and advocated. Ruskin also appreciated the way vines added color and texture to the building surface and the direct relationship with nature that resulted from the birds and other animals that lived in the vines. As a result of this long tradition, many historic buildings achieve part of their architectural character from the vines that grow on their walls.

Unfortunately, clinging plants can significantly increase the rate of deterioration of historic buildings. This article will differentiate between the basic types of clinging plants, identify the potential problems caused by clinging plants, and suggest alternative approaches for historic properties. Specific approaches to be discussed include controlled growth of existing vegetation, alternative ways to achieve an acceptable aesthetic and technical condition, and total removal of clinging plants.

Vines are differentiated by how they climb. They climb in four different ways. Some vines climb by attaching small root-like appendages to the object they are climbing. Another type of vine climbs by attaching small adhesive discs at the end of its tendrils to the wall surface. Some vines climb by winding tendrils or leaf-like appendages around the object on which they are growing. Other vines climb by twining around things like plants, downspouts, and utility lines.

The roots of old growth vines, as can the roots of many types of plant life, cause damage to building foundations. Plant roots can physically invade the foundation wall and displace structural materials, grow under the foundation wall and cause the foundation to heave, or absorb so much moisture from the soil that foundation settlement occurs.

Ivy-covered Harker Hall. Courtesy of HISTORY IN POSTCARDS by the Illinois Heritage Association.

Clinging plants can cause a variety of problems depending on the species' characteristics and the building design and construction materials. Masonry, wood, stucco, and concrete are the exterior building materials that are most affected by vines. In addition, building features like foundations, mortar joints, windows, doors, gutters, and downspouts are vulnerable to damage from clinging plants.

The basic problems associated with clinging plants include the following: (1) physical invasiveness of the roots, stems, and attaching features, (2) the detrimental effects of the chemicals secreted by some clinging plants on some building materials, (3) retention of moisture in the building materials, (4) the damage to the building or the nuisance factor caused by animals and insects for which the clinging plants provide a habitat, and (5) failure to detect maintenance needs because clinging plants obscure the building.
Because vines shade and slow air flow over the building surface, they slow the natural evaporation of precipitation. When wood has a high moisture content, it is susceptible to fungi and insect attack and the paint coating will likely be damaged as the trapped moisture collects behind it. Masonry, concrete, and stucco are particularly susceptible to freeze-thaw damage when they have a high moisture content.

Animals and insects that live in clinging plants usually also nest in, and find food sources in, the building on which the vines climb. For instance, birds nest in the vines and the deteriorated mortar joints of stone buildings. The bird droppings are often highly acidic and cause damage to acid sensitive materials like limestone and lime mortar. Insects feed on the clinging plants and the wood to which the clinging plants are attached, especially if the wood has a high moisture content and has been damaged by fungal growth.

Clinging plants not only create conditions that promote deterioration, but they also obscure the deteriorated conditions that normally indicate the need for maintenance. For instance, dense vegetative growth could obscure moist wood walls that need to be treated for mold, mildew, or a more serious fungal growth like white rot.

The choice of appropriate actions for each historic property will depend on the type of clinging plant present, the building materials and construction features, the climatic conditions, and the historical, and in some instances contemporary, significance of the clinging plants. Before the decision is made to maintain, modify, or remove clinging plants from a historic building, a field survey of the existing conditions and historical research should be completed. The first step of such a survey is to record a general description of the building and the general location of the clinging plants. The second step is to verify which plant types are present. The third step is to record and assess the obvious deterioration and, based on the character of the particular situation, speculate on possible problems that are not obvious without destructive investigation. Historical research should be done to determine how long the vines have been acting on the historic property, whether there has been intervention through proper maintenance, and whether the vines have historical significance or not. In some cases, vines may have contemporary significance such as the ivy covered buildings of a university campus and that may play a part in the decision about appropriate treatment.

If the research proves that the clinging plants have caused minimal damage and are historically significant, the vines should be maintained with diligence. Proper maintenance will include removal of all vines with stems in access of two inches in diameter, removal of all stems that invade cracks and crevices, and removal of vines that spread from appropriate places to inappropriate places, like from a stone wall to a painted wooden eave.

If the research proves that the clinging plants have caused minimal damage and that they are historically significant, but that they are becoming so large and pervasive that they are beginning to be detrimental, they should be cut back and the largest roots should be killed by carefully applying a woody plant killer to the trunk of the vine.

If the research proves that the clinging plants have caused substantial damage and are historically significant, vines of another (less damaging) type can be substituted for the historic vines and/or the vines can be removed from the building surface and trained to grow on a freestanding metal wire or wood trellis.

If the research proves that the clinging plants are causing damage to the historic building and that they are not historically significant, but they have contemporary significance, the solution for the immediately preceding example is appropriate.

If the research proves that the clinging plants are causing damage to the historic building but they are not historically significant and have little or no contemporary significance, the vines should be appropriately removed.

Removing clinging plants should be accomplished by first cutting the stem of the vine near ground level and applying a woody plant killer to the stump. After the vines have dried, which may take weeks, they should be carefully pulled away from the building. Special care should be taken when removing portions of the vine that are embedded in cracks or where there are dense masses of stems and attaching elements. Fine pieces of tendrils and stem can be removed by sweeping the building surfaces with a natural bristle broom or brush. Herbicides should not be sprayed on the vines because they are generally harmful to the environment and specifically harmful to many historic building materials.

This article was taken from the September-October, (vol. XIV, #6) 1992 issue of KANSAS PRESERVATION

Illinois Theatre Remembrance

PACA member James Russell Vaky sent the following childhood memory about the theatre.

When I was a pupil in the fourth grade at Gregory School in Champaign, three of my classmates and myself were chosen to form a quartet to sing for various school functions. Sometimes we performed at events outside the school, and one of these took place in the Illinois Theatre. Paul Cooper, whose father was a Klansman, persuaded the principal of Gregory, Bertha Withers, to permit us to sing at a Ku Klux Klan rally. There was considerable discussion among our parents about our participating, since none of the latter belonged to the organization. Finally, it was decided that two teachers would accompany us and observe the proceedings. Among the selections we sang was "Little Town of Bethlehem," so I'm sure it must have been in December.

When the four of us appeared on stage and faced a sea of Ku Kluxers in their white robes and regalia we were momentarily stunned, but recovered in time to take our cue from a teacher in the wings.

Heritage Awards: Call for Nominations

Please call or send in your nominations for the 1994 Heritage Awards. Categories include:

- Landmark Heritage Award
- Residential Heritage Award
- Commercial Heritage Award
- Institutional Heritage Award
- Adaptive Use Heritage Award
- Landscape Heritage Award
- Neighborhood Heritage Award
- Special Heritage Award

The committee is always happy to learn of exciting renovation projects, particularly in the Residential and Landscape categories. If you know of an interesting project that deserves recognition, please let PACA know.
Two New Books Celebrate Local History

History in Postcards, an entertaining and informative book published by the Illinois Heritage Association in commemoration of the 100th birthday of the picture postcard and the 125th anniversary of the beginning of classes at the University of Illinois, contains 110 original postcard views of Champaign-Urbana, and the university campus. These nostalgic scenes from the first half of this century document many once-familiar sites that have disappeared as well as enduring landmarks that continue to give the twin cities and the campus their special character.

An overview of the early development of Champaign, Urbana, and the university sets the scene for the fascinating pictorial history that unfolds, and each of the 110 illustrations is accompanied by a brief historical description. The book includes a concise history of postcards in America. History in Postcards is available for $19.95 from the Illinois Heritage Association (359-5600) and from bookstores in the Champaign-Urbana area.

History from the Heart: Quilt Paths Across Illinois, written by E. Duane and Rachel Kamm Elbert, presents the findings of an eight-year project which registered 15,808 Illinois quilts. More than 200 pictures in the book trace two centuries of the Prairie State’s history, from the creation of the Old Northwest in 1787 to the present day. Four chapters record the saga of the American pioneers and European immigrants who settled the state, investigate bits of national and state history found in quilts and look at a rich variety of old and new quilts. Additional chapters trace the evolution of how quilters acquired their patterns. History from the Heart is available from the Early American Museum for $34.95.

Illinois History Symposium

The annual Illinois History Symposium is scheduled for December 3 and 4 in Springfield. Sessions will be held in the Ramada Renaissance Hotel at 701 East Adams Street, beginning at 9 a.m. both days. Twenty-eight researchers will present papers in thirteen sessions. The symposium is sponsored by the Illinois State Historical Society and the Illinois Historic Preservation Agency. For a printed program, contact Noreen O’Brien Davis, 1 Old State Capitol Plaza, Springfield, IL 62701-1507.

How will we know it’s us without our past?

John Steinbeck, The Grapes of Wrath

Membership Application P.A.C.A.

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Make checks payable to: P.A.C.A., Box 2555, Station A, Champaign, Illinois 61825

Contributions are tax deductible to the extent allowed by law.
Labor Cooperative Proposed

A PACA member would like to determine if there is sufficient interest to support a home restoration labor cooperative among PACA members. This labor cooperative would be labor-hour for labor-hour. For example, if three cooperative members spend two hours each on your project, you would spend six hours on projects for other members. A core of regular volunteers will be needed for management and coordination. This core will need dedication and a regular time commitment. The cooperative could be a valuable resource for members.

If there is sufficient interest and arrangements can be made, some projects may serve as hands-on instruction sessions to teach both skills and historic appreciation. Home restoration is a complex and labor intensive activity, but anyone can participate regardless of skills or background. Even if you don’t think you have any construction skills, there is a job for everyone. The cooperative will be an information clearing house and skills coordinator. Other possible services include tool and equipment loans, planning assistance, and experienced advice and training.

If you are interested, have a project, want to help on projects, or would like more information, please call David Childress, 351-7794, or stop by the PACA Salvage Warehouse and fill out an information form.

Salvage Volunteers Needed

The salvage warehouse crew is looking for additional volunteers to help staff the warehouse on Saturday mornings. Volunteers willing to work one to three hours one Saturday morning per month would really be appreciated by our dedicated, but overextended, salvage crew. No experience is necessary and crew members get first look at all new salvage arrivals! On-call salvage workers for demolition projects are also needed. Contact PACA, 328-7222, for more information.

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