

Maintenance: Vegetation on Buildings

Implementing a seasonal maintenance schedule is one of the most cost-effective ways to prevent expensive repairs.

It's especially important to prepare a religious property for harsh winter weather by undertaking such routine tasks as cleaning and repairing gutters and leaders, fixing leaky roofs, and checking the boiler. Various jobs can be allocated among staff, volunteers, and contracted services. One way of coordinating work is to sponsor a Fall Work Day for volunteers to focus on building maintenance and cleaning, touch-up painting, and landscaping. Addressing life-safety and fire-protection issues should also be part of any proactive maintenance plan; for more information see the Fire Prevention Checklist in this issue.



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The ivy and other types of vegetation that climb masonry walls adds to the picturesque beauty of many buildings and also help control urban climate and air quality. Despite these positive contributions, this type of vegetation can pose a variety of problems outlined below:

Thick leaf cover often limits access for inspections and repairs, allowing for problems to remain unseen and uncorrected. Ground and aerial roots can penetrate mortar joints, grow in diameter, and displace masonry, causing structural problems. Large stems can disturb water leaders and shoots can clog gutters or lift roofing materials. If the vegetation has entered the building, dry twigs left in soffits and attics can be a fire hazard. The roots (or discs) can leave marks on woodwork.

Vigilant pruning of vines and cleaning of debris from gutters and adjacent spaces is recommended to avoid these problems. A recent Danish study disputes many of the claims that the dampness and acid secretions associated with climbing vegetation causes damage to masonry; more information will be forthcoming in Common Bond. The Tenacious *Ailanthus*, or Tree-of-Heaven weed can thrive in foundation cracks.

When removing ivy, it is simplest to cut out a section of the stem above ground level, causing the plant on the wall to die over the next two years. The application of an appropriate herbicide to the parent (or main) stem will hasten its demise. It is important to carefully cut or pull out mature vegetative growth from every mortar joint.

Closer to the ground is the problem of the invasive *Ailanthus* or Tree-of-Heaven, a tree weed with tenacious roots that thrives under adverse conditions. Cracks between pavement, steps, foundation masonry, and gravestones can provide a bed for seeds or suckers. Prompt and proper action to remove and treat the shoots of this weed will minimize the next year's removal efforts, as *Ailanthus* is the fastest-growing woody plant in the Eastern United States; it grows as much as eight feet annually.

Unfortunately, cutting shoots at the base will only encourage new growth. For this reason, horticulturalists recommend applying a systemic herbicide to the plant's leaves on a calm, dry day. These products are moderately priced and available at garden centers. It is important to follow manufacturers' directions carefully; repeated treatments are often necessary. Once the treatment has ended, remove large sections of dead wood from the wall, as they may create structural weaknesses when decomposing. Also be aware that the removal of stumps from foundations is likely to involve resetting and pointing masonry.

Acknowledgements: Thomas Ching, New York City Department of Parks and Recreation; Palle Kristofferson, "Climbing Plants on Walls -- Advantages and Disadvantages," *Trees and Building Sites* (Savoy, Illinois: International Society of Arboriculture, 1995); John & Nicola Ashurst, *Practical Building Conservation*, Vol. 1: Stone Masonry (Gower Technical Press, 1988).