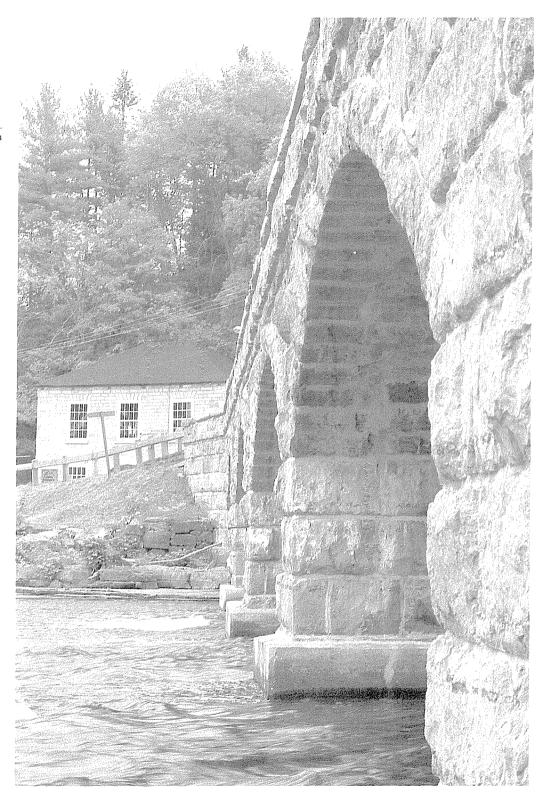
WAYS AND MEANS

The basic purpose of preservation is not to arrest time but to mediate sensitively with the forces of change. It is to understand the present as a product of the past and a modifier of the future.

John W. Lawrence, Tulane University, 1970



Professional advice for hire

Definition of a consultant — someone called in to share the blame.

Dr John Parker

Most private practitioners belong to one or more organizations representing their profession as a whole or their specific expertise in heritage work. Besides associations representing architects, engineers and planners, there are groups such as ICOMOS Canada, the Association for Preservation Technology, and the Association of Heritage Consultants, whose members are drawn from many of the "trades" comprising the heritage field. Consulting assistance should be sought through the membership of such groups, who are pledged to keep the highest possible standards of quality and workmanship. Names and addresses for these organizations may be found in Appendix 1, "Heritage organizations and information resources for Ontario".

Professional services or do-it-yourself?

The growing importance of heritage conservation has prompted a corresponding development of professional expertise. In addition to the existing range of planning and building professionals, advisers with specialized talents and experience are available for every conservation activity, from research to restoration. Many of these specialists have established professional associations to share information and maintain principles and standards for the quality of their work.

There may be little room in the budget to afford conservation expertise. But every part of every project must be appraised to see where such help might offer short- or long-term savings that would more than pay for the consultation. A professional's experience on many individual projects adds up to a wealth of knowledge that can minimize or prevent problems, and it is often worth a modest fee to borrow that experience for the job at hand.

For any construction project, old or new, the crucial starting point is the matter of project planning and co-ordination. Owners must decide whether to do their own co-ordinating, and undertake to bring in appropriate specialists, or to hand overall supervision to someone else — perhaps to an architect, engineer or general contractor. Doing-itoneself can be very time-consuming, cutting into time, convenience and even income. But the advantages of close personal attention and responsibility may include some cost savings, as well as an unparalleled learning opportunity and the ultimate personal pride in the results of the work. There may be, however, legal limitations on how much building work can be done by a nonprofessional. At some point, even the most avid do-it-yourselfer may have to bring in an expert for a special item of work or to help oversee the project.

It is very rare that an owner can hand over complete responsibility to a co-ordinator for an old-building project, because there will be adjustments during the work that will require "policy" decisions. Though they should be avoided by careful planning, complete reversals may occur in the course of even the best-planned work. No old-building project ever goes completely by the book (not even

this book). Owner-clients should consider a project co-ordinator insurance against the worst — to help minimize avoidable risks and reduce the damage from unavoidable events — and paragon — someone whose talent will add value to the final product.

But co-ordinators cannot do everything. Most old-building projects cover a variety of work that exceeds the range of services normally offered by the architects and engineers who have traditionally co-ordinated construction work or even those offered by independent project managers. On the smallest projects a co-ordinator will be doer as well as manager; on larger jobs, some firms may try to cover all the work, but they will probably retain and supervise specialized sub-contractors. This can put a strain on the client, who may have to deal with disagreements among co-ordinator and specialists. Even as co-ordinator, an adviser is simply one who advises, and the client must take ultimate responsibility for every important decision. A good co-ordinator will help make those decisions more informed and palatable but cannot and must not make them without the client's understanding and support.

A project co-ordinator — or an owner acting in that capacity — will have to identify which specialties must be brought in for the project and when, and which functions can be carried out by less expert workers (or even by the owner). In the earliest phases, there will need to be planning and research to evaluate the resource, to identify its most important qualities and to determine appropriate treatments. This can involve several specialties, from historian and archaeologist to photographer and conservator. Design and specification of the necessary and optional work may require similar specialties if the problems identified earlier prove untypical. Assessment of structural and other deficiencies requires a rare and deft combination of construction knowledge and understanding of historic materials and techniques available from few architects or engineers unaided by specialists.

Standard construction documents are seldom applicable to old-building work; specifications must be developed by someone with special experience and must be based on thorough reporting of existing conditions, something unnecessary for conventional new work. Sometimes there are economies to be made by replacing some usual construction drawings with suitably clear annotated photographs, but the written specifications need to be correspondingly precise and knowledgeable.

And then there is supervision.

Exhaustive research, sensitive design, careful specification — all will come to grief if the work is done poorly. Bad work can rarely be undone. Sometimes it will be hidden from view and rear its dangerous head only in the event of a failure or even collapse. Without the most diligent care and attention to everything from research to final clean-up (and maintenance after . . .), there will be plenty of chances for misunderstanding, slap-dash work, even damage to features meant to be preserved by the project.

Site supervision for old-building work is unlike that for new construction. For larger projects, it may even mean having a resident site supervisor all the time: a clerk of works. Close supervision does not mean hovering over foremen and workers as if they were galley slaves; the idea is to help improve the quality on site by bringing in previous experience with conservation problems to solve new ones as they crop up. In practice, this means establishing standards for quality on the job at the beginning of the project, using samples and demonstrations to make clear the sort of work that will merit approval at the *end* of the project. The contractor may be well versed in conservation problems and able to make up for deficiencies in the contract documents, but a client or architect should never count on such magic.

Personnel engaged for any stage of a conservation project should be able to demonstrate their adherence to the highest possible standards of knowledge and craft. They should belong to professional organizations and should work in some manner for the advancement of their specialty as a whole. In the end, the ultimate test for all of the preparatory work on a building conservation project is a durable, honest, well-preserved final product on paper and on the ground — something that will endure to the credit of all its contributors.

Generalists

Planners work under a variety of labels nowadays, from management consultants to environmentalists and surveyors, but their training and experience may equip them to coordinate many of the conservation activities that surround but do not include the construction process itself. They may be listed in directories according to various specialties. Some have specialized as heritage planners through on-the-job experience, since there is no specific training for them in Canada and few programs elsewhere. Heritage planning is both specialized and generalized. Though focused on but one "kind" of resource — old places and things — the very variety and complexity of these resources require heritage planners to have an exceptionally broad base of skills. In practice, heritage planners, environmental planners, resource managers and urban planners should be able to coordinate — and do — most conservation research, analysis and planning. But the more effective practitioners will have a solid understanding of heritage resources and the built environment through thorough grounding in history, human geography, architectural history or material culture studies.

Architects seem the "generalists" best placed and trained to be comprehensive coordinators of building conservation work, from even the earliest stages of research and planning. But in North America few architects receive any training in the special concerns and problems of conservation. Few architects treat existing features with very much respect, and many historic buildings have been stripped of valuable and useful heritage features at an architect's orders as a matter of course before replacement work is even designed. Selecting an architect for conservation work requires careful attention to the needs of the project at hand, together with an assessment of the architect's understanding and sensitivity in previous projects, both as designed and as completed. Demonstrated skill in site supervision is essential, even though it seldom involves more than a quarter of the fee. The experience and satisfaction of previous clients may play a large role in the selection of an architect. Frequently, an architectural firm's success depends on specific personnel, and a client

can and should insist on having a previously successful team retained together. On larger projects someone with conservation experience may work as a specialist with another co-ordinating architect. While there are competent and experienced specialists without special training, many have received qualifications from advanced university programs outside Canada. Some practitioners have begun to call themselves "conservation architects", though the title is not used consistently.

Engineers and project managers are competing with and taking over many of the construction-related responsibilities of architects, even though they may not be trained in all of the areas required for architectural qualification or for building work in general. In Canada education of engineers is if anything more deficient than that of architects for conservation purposes, but there are specialists with conservation skills who have learned from experience (and their numbers are growing as old-building work increases). Project management is a relatively recent specialization, elevating the role of construction co-ordinator to that of construction director responsible for all work, including even retention of architects as one of several types of "specialist" (see "Clients, consultants and contracts", below). Again, there are few project managers with the special understanding required for most conservation work — conventional project management accelerates construction schedules by deliberately dispensing with the preparatory work essential to conservation. Here, as for architects, previous results are the only reliable test of an engineer's or project manager's capabilities for conservation projects, whether independently or as part of a team.

Building contractors can act as both coordinators and doers of the work. Some contractors are very skilled at conservation work, often because their work-force contains specialists trained in traditional methods in Europe. A good contractor may be able to make up for some lapses on the architect's part, but just as often a contractor or builder will not take the required care or precautions demanded by the conservation specifications. On many construction jobs, the owner will have to deal with both an architect and a

general contractor, each with separate contract and separate legal status, and this can get very confusing. Architect and contractor must work well with one another to make a success of conservation work. Because of the cyclical nature of construction, the best workers may not be available for conservation work — contractors and their regular trades often get too busy during economic booms and may leave the field altogether when things are too slow. A good, sensitive contractor working unhurriedly with careful, well-conceived plans is the closest an owner will get to a guarantee of success on a conservation project. Regrettably, such people are rare.

Specialists

Architectural researchers and architectural historians, trained academically or through many years of reading, writing and seasoned observation, can quickly unearth much of the background needed to determine the associational value of a building or site and relate a given place to others of its type and era. They can cut through the mountains of marginal documentation to find the useful information. They can and do teach others about the importance of historic buildings, districts and towns. The publication of "academic" books about Ontario architecture in the last two decades by architectural historians has done a great deal to establish a far more positive climate for conservation, and the book-writers and their students are now adding to that knowledge town by town and building by building. Researchers who deals with the nuances of the new uses and functions of a building, often called architectural programmers, can help co-ordinate new uses and old spaces to advantage.

Archaeologists, trained in anthropology or classical studies but seasoned in trenches, pits and basements, certainly dig up information much more directly than their documentary colleagues. A skilled historical archaeologist can make reliable inferences from fragmentary evidence that combines with the historical evidence to locate missing features, illumine the lives of early inhabitants, or disprove the invented tales of a romanticized past. But historical archaeology requires sensibilities and interests that not every archaeologist

possesses. The key to successful archaeological exploration of building and site is the archaeologist's ability to mesh tangible evidence and findings with those of other building specialists to solve practical problems quickly.

Building investigators are specialists in the inspection, recording and diagnosis of building faults. The "building surveyor" is a legally recognized and regulated professional in Britain, but has not yet attained such status in North America. Often trained in architecture or building technology, inspectors with a special eye for historical detail and technique may prove invaluable in diagnosing the causes of deterioration and in tracking down solutions to puzzling difficulties. Where original drawings do not exist, building investigators may record dimensions and materials and produce measured drawings upon which conservation specifications may be based. Many investigators combine these talents with more general research skills to offer comprehensive building reports for conservation projects.

Architectural photographers and photogrammetrists can make precise and unambiguous records of buildings and sites before, during and after conservation work. Their photographs can be used by architects and specifiers instead of or in addition to drawings, saving time and sometimes expense. Not just anyone with a camera qualifies as an architectural photographer, however. Expensive equipment, large-format negatives, and an unusually keen sense for composition and lighting are beyond the average shutterbug. Terrestrial photogrammetry can provide, at additional expense, images good enough to stand in for measured drawings when plotted on a computer-aided system. As yet, there are few building photogrammetrists in Canada, but they may multiply as newer and less expensive equipment improves in quality.

Landscape architects and land surveyors, though seldom trained in any explicit aspect of heritage conservation, may offer site assessment services that mesh well with archaeological and building survey work and can be retained in conjunction with those specialists when larger sites and districts are under consideration.

Conservators and materials scientists are laboratory-based problem-solvers, familiar with the physics and chemistry of building materials and able to prescribe recipes such as mortar mixes and cleaning formulas. Fine-art conservators can offer particularly useful help with materials such as paint, woodwork and metal, though there is often a special challenge to translate their laboratory prescriptions to workable treatments on a building site.

Interior designers may sometimes go beyond conventional popular tastes for European "antiques" to an understanding for the historic forms and styles of Ontario communities, whether high-style or commonplace, and a corresponding skill in the conservation of furnishings and finishes. An old-building interior of good quality that has survived modification is a rare phenomenon, and should be entrusted only to a knowledgeable designer who can treat it with almost museological care.

Museologists receive training in several areas surrounding the core concern for the portable artifact and its conservation. Consequently, they may be able to assist the resolution of specialized problems identified through archaeology or historical research, by suggesting ways to integrate others' work in a way that respects the integrity of the whole.

Building craft workers and special tradespeople with traditional training and many years' experience may have learned as a matter of course many of the special conservation repair techniques studied so assiduously by professionals at graduate schools. Only the contractors for whom they work may know of (and perhaps jealously guard) their special skills. Though there are growing numbers of such specialists, they may be hard to find. And in some of the older trades, such as stonecarving, practitioners have almost completely disappeared.

Custom fabricators may be able to repair or replicate building elements in their workshops in cases where on-site repairs have become too difficult. Perhaps the most called-for components are window sash and other types of custom millwork. There are still many rural and small-town mills and shops that will do such work well, but, like good building workers, their existence is advertised only by word of mouth.

Clerks of works keep track of the conservation work on the jobsite. Though sometimes juniors in an architect's office, they often have solid construction experience and may consider themselves to be budding conservation architects. They must possess considerable patience and attentiveness, and must know building and repair techniques very well. Site supervision is a delicate and crucial task, and its practitioners must be thorough, disciplined and diplomatic.

Construction managers may be retained directly by clients to manage the construction phases of a project, as co-ordinator of a team comprising architect, contractor and other specialists as required. Construction management, traditionally part of the general contractor's role, adds to the responsibilities of a clerk of works the independence and authority to deal directly with everyone involved in the project. The flexibility of the role can be of great advantage to conservation, if the manager has the requisite understanding of old buildings and traditional practices to go with more general co-ordinating skills.

Managing projects

All types of construction have become more complex in recent years on account of increasing specialization of buildings, builders, consultants, and regulations. For conservation, which comprises much more than standard building work, the potential variety of ways of running the work, from research and planning to maintenance and repair, is even more complex. The roles of the many professionals described above depend on the type and scale of project and on client preferences.

Owners should be aware of the variety of ways that conservation projects can be managed. In traditional building practice, clients contract separately with an architect to prepare plans and drawings and a general contractor to carry them out, sometimes with the architect's supervision. But as building practice has broken up into more specialties, clients have more options for how the specialties relate to each other. In project management, an individual or firm becomes virtual dictator of the work, and all the client's decisions and approvals are

funneled through the project manager's office. In construction management, an individual or firm becomes co-ordinator of a team, more referee and counsellor than dictator. In some cases, these functions are still carried out within an architect's responsibilities, but in complex projects the architect may lose that "oversight" function. Complexity is not simply a matter of size or expense — in conservation, even relatively small projects may require several specialties and close attention to their co-operation.

In contrast with this specialization of function, what are known as design-build firms may offer all these services under one roof. This comprehensive approach, where teamwork is made consistent over many projects, is primarily a new-construction technique best suited to projects with little variation. Unless a conventional design-build firm has individuals already skilled in conservation, it is unlikely that its approach can meet the varying demands of conservation.

Of these approaches and their variants, construction management seems to offer the most adaptability to the often changing conditions within conservation projects. But, no less than any other form of management, it requires talented and co-operative individuals to make it work.

This range of options for building conservation has parallels in the wider spheres of land-use and environmental planning, where independent specialists coordinated by heritage planners and management consultants are in competition with planning or engineering firms that offer a multitude of services. Either approach may offer the right services and personnel for a given job, from environmental assessment to landscape restoration. Again, the best results will come from co-ordinated teams of skilled individuals working together.

Clients, consultants and contracts

In retaining professional help, it is essential to look most closely at a consultant's or contractor's previous work and to take more than one look and hear more than one opinion about that work. Conservation requires both very specific skills and a very broad vision. It requires both assured experience and

willingness to keep learning. There exist guidebooks for the selection of professional services in general as well as manuals for the professionals themselves on the development and selling of their services. The best general guide is the published advice available to the "other side" — consultants should learn about procurement, clients about marketing. Beyond that, keep asking questions of the prospective consultant (and of the client, too), to become aware of both talents and limitations in a "partnership" for a specific project. This will be true for any aspect of conservation from studies to maintenance, but especially so in selecting someone to co-ordinate the work of others.

To maximize the value of professional advice, clients, consultants and contractors should all take advantage of free (and almost free) help as well.

No matter how simple the work, it is vital to use proper legal contracts to regulate and assure quality of work. For building conservation, the construction documents themselves are legal agreements, not merely instructions, and their breach can cause legal problems as well as building decay. Architects and engineers use standard forms of contract documents, and it may be useful to examine these before getting into any legal agreements with consultants or contractors. These standard forms are generally useful (in some cases even mandatory), but they seldom fit many conditions encountered in conservation work. An owner may require several contracts for a single project, and their interrelations will be as important to the success of the work as their individual contents.

Even where a client fulfills many or all of these functions on a do-it-yourself basis, it is vital to keep them well organized. Though it may lead to an almost schizoid separation of personalities, an owner must be clear, when making crucial decisions every step of the way, whether he or she is acting as client, coordinator, or specialist.



Professional advice for free (and almost free)

There are many almost-free information resources in the form of books about conservation practice generally, or about specific aspects or components of conservation work. The references throughout the "Good practice" guidelines include both specialized texts and general works. Listed below are the more general and comprehensive of these publications. See also Appendix 6.

Planning/principles: CUMI85, ENGH99, FRAM84, GUID82, HIST80, HUME83, KING98, MCPH84, MURT97, NEWC79, REST86, TECH86, TIMM76

Cultural and urban landscapes: BANKOO, BIRN94, BYRTOO, COHE99, FRAM84, GREN99, HAME98, STOK97

Gardens: FAVR91

Conservation techniques and technologies: BOWY80, FEIL82, FROI86, HOLL86, INTE82, LANG78, LITC82, MACE98, MADD85, POWY29, RAMS88, SHOP86, SMIT78, STAH84, TECH82, TIMM76, WARR98a

Small buildings: HOLM75, KITC83, LYNC82

Residential: ARTL85, CUNN84, DAVE80/86, HANS83, HERI98, HOW86, HUTC80, KAPL78/86, KIRK84, LAND79, LAND82, LAVA82, LEGN79, LEST77, MELV73, MILN79, POOR83, PUIB85, READ82, RENO85, SAUN87, STEP72

Commercial/main street: DUT085, JOHN84, MEAD86, MOOR98, POWE98, WARR98

Interiors: APTIOO

Maintenance: CHAM76, SAND84

French-language (general): FRAM93, FROI86, LAVA82, PUIB85, GUID82, RENO85

Finding and using advisory services

Recent expansion of conservation activity has built on a much older foundation of public movements to conserve history and its artifacts. In Ontario, such movements preceded Confederation — the Historical Society of Upper Canada was founded in 1861. Local historical and genealogical societies began to promote record-keeping and commemoration of local history more than a century ago. The Ontario Historical Society, to which thousands of individuals and more than two hundred organizations belong, dates from 1888. The more specific interest in architectural conservation is also quite venerable. The York Pioneer and Historical Society began to restore the Sharon Temple as a local museum in 1917; the Architectural Conservancy of Ontario was founded in 1932.

Because of this tradition of community interest and activity, many organizations and individuals can offer information and advice about a wide range of conservation problems. Information resources are lodged in libraries, archives, museums and publications and in the shared knowledge of many people involved in voluntary organizations. These resources are of inestimable value to those researching and evaluating communities and individual properties and may even be able to help in solving conservation problems. What help may be available will vary from place to place, however. And though there are provincial and federal resources for advice and assistance, these cannot replace local initiatives and local resources.

Local architectural committees

The Ontario Heritage Act has enabled municipalities to establish local architectural conservation advisory committees (LACACs). These citizens' committees advise municipal councils on any matter relating to the legal designation and conservation of buildings of historic or architectural value, as individual properties or as heritage conservation districts. In practice, a committee's activities often go far beyond simply recommending that specific places be designated, one by one. In order to prepare for the future, many committees make plans and inventories to identify and recognize important properties, rather than simply react to requests or threats.

They actively promote their heritage, staging public events, producing and distributing walking tour guides and other educational materials, and supporting local research and publication. Some LACACs offer practical advice (in larger communities, through a professional staff) on appropriate preservation, restoration and maintenance techniques. Many LACACs are, however, learners themselves, and their principal advisory role may be as co-ordinators of information and resources.

Members of a LACAC or its advisory staff are best contacted through the municipal clerk's office (though in some municipalities an inquiry may have to be a bit persistent, since such functions may be carried on by a historical board or other civic agency not known expressly as a LACAC).

Local heritage organizations and allied groups

Even in places where there is no LACAC, there are always individuals and groups with interests in and knowledge about local and regional architecture and history. Most communities have local museums or public libraries; curators and librarians are invariably knowledgeable about heritage groups and activities in their locale. They can offer information about buildings and sites in their collections and archives and can direct inquiries to larger centres or to local individuals with special knowledge. Libraries can find any conservation literature in print through interlibrary loan, as well as on-line.

Many municipalities, counties and regions compile and maintain archives of documents, including tax and assessment records, personal and municipal papers, photographs, drawings and local newspapers, as well as collections of local historical publications. They may also have microfilm copies of important documents from other collections. All these may be useful for both individual building research and broader investigations. Local churches may also have such collections.

There are hundreds of historical and genealogical societies in Ontario, many with information about buildings and sites of heritage importance. In certain cases there may be a regional foundation dedicated to

Contact information for organizations mentioned in the text can be found in Appendix 1, "Heritage organizations and information resources for Ontario". See Appendix 4 for a list of LACACs, and how to find the most up-to-date information. Provincial government services and responsibilities for legislation have been in flux in recent years. Heritage matters have typically been located in the "cultural" sphere, but also affect (and are affected by) land-use planning and environmental protection. Information about "who does what" in government is available from provincial publications and on-line sources (see Appendices 1 and 5).

heritage conservation, with resources to undertake conservation work directly. For instance, Frontenac County and Waterloo Region created active regional heritage foundations. Such groups and their members often have collections of papers and photographs that can offer the patient researcher much essential documentation for conservation. Even local service clubs and ethnic organizations may have valuable information and documentation about the cultural history of their communities that can prove useful to conservation projects. While some groups may have technical expertise, this is not often the case; their primary value rests in their special interests and collective knowledge.

Province-wide organizations

In addition to professional associations, province-wide interest groups may well have information and advice for specific cases. The Ontario Historical Society, as the principal umbrella organization of historical societies and the like, may be able to direct inquiries about regions or subjects to appropriate groups or individuals. At times, the OHS has offered a program of technical consulting services to enable municipalities without local expertise to avail themselves of qualified consultants on a need-to-know basis.

The Architectural Conservancy of Ontario and its several regional chapters comprise a host of knowledgeable and dedicated enthusiasts who can advise on many aspects of architectural heritage. As well, there are many other regional and sometimes province-wide groups with special interests in subjects like industrial archaeology, historic gardens, or railway history. These may be tracked down through local contacts, the Ontario Historical Society, or regional offices of the provincial government. Membership in such groups offers opportunities to gather information, share knowledge and assist others in conservation, and permits access to allied national or international organizations.

Publicly endowed organizations

Though the Ontario Heritage Foundation may be better known for its programs of commemorative plaques and advocacy of conservation of both built and natural environments, it also provides information and technical advice to those who seek it or channels such requests to professionals in other provincial departments and agencies who assist the Foundation from time to time. The Foundation sponsors conferences and seminars on conservation and produces advisory publications on specific topics. The Foundation's decades of work on the conservation of its own properties has generated considerable documentation; though little of this experience has been published, its files may have much useful information about special problems.

The Heritage Canada Foundation is a federally chartered but independent nonprofit organization that promotes conservation of cultural heritage at the national level. Based in Ottawa, Heritage Canada has published magazines and newsletters with articles and technical advice on many areas of conservation activity and practice. It also has a modest reference centre in its Ottawa office, sometimes available by appointment for research visits. With local co-operation, Heritage Canada operated a "Main Street" program in communities across Canada for many years, and has produced comprehensive information packages and seminars of technical advice for downtown revitalization and storefront rehabilitation.

Heritage in government

Few municipal governments have sufficient resources to retain heritage expertise on permanent staff, though this is changing as planning and building departments begin to recognize the need for such in-house expertise. Some larger towns, cities and regional municipalities have staff whose work includes heritage conservation. But for Ontario the major concentrations of professional expertise in government are in heritage units of the Ontario government in Toronto (and some field offices around the province), and of the federal Department of Canadian Heritage in Ottawa (as well as in the Department of Public Works). These offices have professionals skilled in all aspects of conservation from research to repair, and collections of reference materials for consultation. They maintain contacts with

respective governments. Both have undertaken many specialized research projects; though few have been published, there is considerable documentation available for serious research on many topics and areas.

The federal government maintains the Canadian Inventory of Historic Building, a database of many buildings constructed up to the 1880s in Ontario and other eastern provinces (to the 1910s in the west). Though a descriptive dossier may be available for buildings in even the smallest community, the CIHB's data are by no means comprehensive. Its strength lies in its topical or thematic studies of building and structure types, and there are now published references for canals, courthouses, schools, town halls and lighthouses, among others, as well as surveys of selected Canadian architectural styles and techniques.

Both the Archives of Ontario (Toronto) and the National Archives of Canada (Ottawa) preserve extensive holdings of government records, as well as large collections of historic photographs, maps and architectural drawings. Particularly useful for architectural research are their holdings of old fire insurance atlases of many towns and cities.

Other government agencies

Governmental interest in heritage conservation is not restricted to heritage agencies. Provincial and federal departments concerned with housing, industry, public works, agriculture, environment and energy have all established some interest in one or another sphere of heritage conservation, from planning highways to insulating houses. Some agencies have published advisory materials that can apply to conserving architecture and other heritage resources. But these publications must be used with care and discretion, for much of their advice is directed toward new construction rather than the much more complicated matters of preservation and maintenance of existing places. Energy conservation and retrofit are particularly sensitive issues, and much conventional retrofit advice cannot be applied without

damaging the fabric and appearance of historic buildings.

Both federal and provincial governments publish general guides to all their programs; information about their potential for heritage conservation may be sought through heritage agencies.

Educational and cultural institutions

There are no full-fledged architectural conservation programs established in Canadian universities or technical colleges, though there are prospects that some will exist in the very near future. Nevertheless, there are individuals in departments of architecture, geography or history with their own interests in heritage, and such departments may well have academic studies and surveys of regional architecture invaluable as background for conservation work. As early as the 1930s some universities supported work on surveys or drawings of historic architecture in Ontario, as well as on regional studies with architectural aspects. Universities, especially the older institutions, have extensive archival holdings of historic documents, drawings and photographs rivalling those of government (and not necessarily restricted to immediate local interest). One special collection of note is at the Canadian Centre for Architecture in Montréal, whose rapidly growing archives and library should in the long run offer considerable documentation for many areas in Ontario as well as the rest of North America.

Periodicals

Conservation has begun to attract a good deal of attention as a commercial activity, and a series of special-interest magazines has grown up in addition to publications directed to professional audiences. These magazines offer useful information, though much must be used with caution unless reliably tested. Perhaps their most valuable contribution is their advertising for suppliers and fabricators, since a great deal of heritage work requires skills and materials not readily available in the corner hardware store.

A good statement of what LACACs have done, and can do. Since May 1986, the BRIC program mentioned in the letter has been replaced by new programs that offer similar grants in aid of conservation work in Ontario.

Dear Resident:

This L.A.C.A.C. committee was formed in Oct. 1984 in response to the threat to the Lyndhurst Bridge. We have become known for the part we took in the controversy over that issue, and we are proud of the contribution we made toward the final decision to restore the old bridge. We would now like to clarify our purpose and our aims for the future.

We are essentially a group of community-minded citizens who have decided to take an active role in preserving the things that make our township unique. Those among us who are natives of the township decided many years ago to stay here and help make this a better place to live, rather than go where the pastures looked greener. Those of us who have come here recently were attracted by the same features we are trying to save. We believe that a sense of pride in our past is essential to a strong and stable future, and we applaud the Government of Ontario for addressing that issue through the Ontario Heritage Act. We hope to make that Act work to the advantage of this township, and in that endeavour we request the cooperation of all residents.

We hope to foster an attitude of sympathy toward the old architecture in the township. Whereas, for many years, our old-fashioned houses, stores, and industries were seen as a liability that drove our young people away; those same old buildings have now become assets. They give our residents a sense of being part of a long tradition, and they attract newcomers who feel a lack of tradition in their lives. It is now a privilege to own some of our oldest houses and stores, and, as with most privileges, there is a responsibility to the community of which that architecture is a part, to defend it against such hazards as aluminum siding, "picture windows", aluminum storefronts, unsympathetic renovations, and needless destruction.

We would like to suggest alternatives to these detrimental renovations and help people find sources of restoration materials and services. Buildings that qualify according to our formula can be designated by our Township Council to bring them under the protection of the Ontario Heritage Act. Once designated, those buildings are eligible for grants under the Building Rehabilitation and Improvement Campaign (BRIC), which pay half the cost of exterior restoration, up to a maximum of \$2000 per year. The BRIC program, however, is due to expire at the end of 1986, and we are expecting the announcement of a new program to replace it. In the meantime, we are researching and preparing to designate buildings chosen on the basis of merit and need for protection.

This committee has taken the additional incentive to establish an archives for the Township, where all descriptions of historical material may be deposited. At present it consists of a single filing cabinet, but we hope to expand into a large unit that will stand in the Council Chamber and hold file cabinets, flat plan files, book cases, microfilms, and a card index to the collection. It will be open for users and donors at any time the Municipal Building is open. We need any sort of written or printed material that sheds light on what conditions were like in this township, province, or country, prior to W.W. II. This includes, but is not limited to, diaries, letters, business records or agreements, trade directories, histories, family trees, photographs, maps, land grants, memoirs, etc. These things are often of no monetary value, and were usually sent to the dump in the past. We especially want identified photos of people and places in this township. Old photos of buildings can be the evidence that makes a restoration qualify for a BRIC grant.

The archives also needs donations of money or materials that are not included in our budget, such as a filing cabinet (two drawer, legal size), a plan file, encapsulating materials, book cases, and eventually, a microfilm reader.

Let's finally get started on building a mutual pride in our community by appreciating what our ancestors did and built here. In that field we are already 70 years behind our neighbours south of the border.

Thank you.

Local Architectural Conservation Advisory Committee, Township of Rear of Leeds and Lansdowne, May 1986

Conservation at law

The Ontario Heritage Act

This legislation is central to the protection and conservation of man-made heritage resources in the province, though it is by no means the only law that affects heritage. The Act authorizes the Ontario Heritage Foundation to promote heritage conservation by giving advice to the provincial Minister responsible for heritage, by owning and conserving property, by aiding conservation activities of others, and by maintaining a register of municipally designated properties. The Act enables municipal governments to designate and protect properties deemed to be of architectural or historic interest, whether singly or in districts, and further permits establishment of local architectural conservation advisory committees (LACACs) to advise municipal councils. It permits the Minister of Culture and Communications to designate archaeological sites and regulate archaeological exploration anywhere in Ontario. The Act also enables the Foundation and municipalities to acquire conservation easements on properties, in order to assure their conservation while leaving their use and enjoyment in private hands. The Act provides as well for the usual procedures and penalties normal to provincial legislation.

Part IV designation applies to properties of architectural or historical interest, as defined by a municipal council in consultation with its LACAC; the Act itself does not provide explicit criteria for designation. After a specified set of steps — that provide for public notice, consultations with property owners, public submissions, and administrative appeals — a property may be designated by municipal bylaw. This by-law, with its accompanying reasons for designation, is registered on the title of the property and authorizes the municipality to delay the issuing of demolition permits or to require approval in advance for any alterations that might affect the reasons for designation. Designation makes the owner eligible to apply for any heritage grant-aid that may be available from municipal or provincial programs tied to the Act.

Part V designation applies to heritage conservation districts: municipally defined areas of distinctive architecture and/or landscape that may include several properties.

The procedures and effects of district designation are similar to Part IV designation with respect to individual properties, but Part V designation can also affect new construction on all properties within the district, enabling a municipality to ensure that new development will fit well with the character of its surroundings in scale, material and character. A district may also affect streets and other public lands within its bounds, allowing for comprehensive designs for rehabilitating both public and private property. District designation is reviewed and granted through the local-area planning process, culminating in a hearing of the Ontario Municipal Board.

Part VI designation enables the provincial Minister responsible for heritage matters to protect archaeological sites, including ruins; it is not a municipal responsibility. The Minister has the power to stop work on a site where archaeological remains may be threatened and to declare any site permanently out of bounds for excavation or other destruction. All archaeological work is regulated through the issuing of licenses by the Minister on the advice of the Ontario Heritage Foundation. Archaeological artifacts belong to the people of Ontario, and any unauthorized archaeological work is considered a serious offence.

Conservation easements may be acquired and held by the Ontario Heritage Foundation, by municipal governments or by heritage agencies so delegated by the Foundation. They permit the acquisition of one right from the bigger bundle of rights that make up ownership of real property. A conservation easement is a commitment by the owner of the property's title to conserve and maintain the features described in the easement; these may include interior or exterior features, landscape elements, even specified views. Once attached to the property, the easement is an inalienable part of the title, binding future owners to the same conditions. Easements have important advantages for both sides of the deal; the easement holder gets a guarantee that the property's heritage value will be conserved by the owner, and the owner is often able to obtain in return financial aid for the property's conservation.

It is enough . . . that the privately created ingredient of property receive a reasonable return. . . . All else is society's contribution by the sweat of its brow and the expenditure of its funds. To that extent society is also entitled to its due.

New York State Court of Appeals, 1978

The most readily available guides to the Ontario Heritage Act remain FRAM84 for individual buildings, and CUMI85 for districts. See DENH97, KING98 and HUTT99 for broader legal and philosophical issues. The provincial government has published advisory pamphlets on archaeological conservation and on heritage conservation easements, and the Ontario Heritage Foundation, which holds many easements, is particularly active and knowledgeable. See the Appendices for contact information.

The Planning Act and the Environmental Assessment Act

The Planning Act empowers Ontario municipalities to regulate the use of public and private lands within their boundaries, including preparation of general and localarea plans and their implementation in municipal legislation, especially zoning bylaws. The Act enables municipalities to negotiate agreements with landowners about conditions for developing properties in addition to zoning requirements and further enables them to undertake special studies and plans for redevelopment areas. Most of the Act's powers are subject to approval by senior levels of government, including regional authorization of site-plan and subdivisionplan approvals, ministerial approval of official plan documents, and administrative reviews, approvals and appeals before the Ontario Municipal Board.

The Planning Act has an effect on heritage resources in municipalities at least as great as the Ontario Heritage Act, since it governs the uses to which buildings may be put and the context in which they will continue to exist in the future. Plans after all will affect *all* buildings and properties, whether designated or not (and the vast majority of properties that may merit designation have not been designated). A town cannot enact a heritage conservation district without having amended its official plan to allow for heritage districts in general. Any alteration of permitted uses to enable an existing building to be adapted to new uses is a planning matter.

Because planning and heritage are so intertwined, dealing with heritage matters is most often part of the responsibilities of a planning department or consultant, and most heritage inquiries end up with planning officials (see "Municipal policies", below).

Ontario's Environmental Assessment Act requires that all major developments be assessed for their impact on the environment as a whole and that measures be taken in planning and construction to ameliorate these effects as much as possible. In practice, the bulk of these projects are public developments; most private undertakings take place within municipalities where development is already regulated by planning and zoning (though there are occasional

overlaps). The Act's definition of environment is quite broad and includes man-made features of architectural, historical, archaeological and scenic value.

In general, major environmental disturbances such as highways, electrical transmission lines, minesites and even tourist facilities can be immensely damaging to heritage features, and the most effective impact-reducing strategy is usually avoidance. But where avoidance is impossible, then as much as possible heritage resources are inventoried, recorded, protected during construction, and re-used or modified to cope with their new context. Demolition should be only a *very* last resort.

Because of the Environmental Assessment Act's insistence on thorough study of the environment before any change is contemplated, environmental studies have gathered much information on the heritage features of large areas of the province beyond municipal boundaries. Accordingly, many collections of data in environmental reports may prove useful to researchers on history, architecture and archaeology. The Act's provisions for protecting environmental resources apply to buildings no less than wetlands, and these procedures are far more comprehensive than those of the Ontario Heritage Act.

Maintenance and occupancy by-laws

In Ontario, the Planning Act and the Municipal Act authorize and in certain cases compel municipalities to enact property standards in the form of "maintenance and occupancy" by-laws which establish standards for the security and upkeep of properties. Abandonment and neglect of property are a blight on surrounding properties, and municipalities have powers to enter and clean up dereliction and charge the expense to the property owner's taxes. Such powers have kept most of the province's municipalities relatively free of abandoned and derelict buildings, but sometimes at the cost of rushing the demolition (or completely insensitive modernization) of properties whose conservation could not be instantly assured. The effect of these by-laws on heritage structures varies from place to place, but they do offer a minimum standard of

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serviceability that even the most modest conservation project must surpass.

Ontario Building Code

The Ontario Building Code is a uniform standard for construction practice across the province, though its enforcement is a municipal responsibility. The Code was devised to regulate new construction and in consequence can conflict seriously with existing buildings, many built under earlier regulations or no regulation at all. Recognizing this, the provincial government has begun to modify the Code to recognize the value of older construction techniques and to enable older buildings to meet performance standards rather than the absolute minima that comprise the regulations for totally new construction. Part XI enables owners and builders to seek "compliance alternatives" (suggested in the Code itself) or "alternative measures" (proposed by owner or consultant) for residential occupancies in buildings being rehabilitated or converted from other uses. This involves some flexibility on the part of local building officials, but it has proved an effective approach in terms of economics, aesthetics and safety. Work is in progress to extend such provisions to other uses but has been complicated by the many permutations of conversion from one use to another.

This flexible approach to regulation can permit retention of much more of a building's character in the throes of its conservation for renewed use than would be possible with strict adherence to new-construction techniques. Its price is the need to know more about the techniques of the building's original construction, an area not yet well enough known by very many owners, architects and builders.

Other conservation-related regulations

Other aspects of provincial law bear directly on conservation work. The Occupational Health and Safety Act and its regulations provide for worker safety on construction sites (among other places) and spell out procedures for avoiding unsafe practices. The Environmental Protection Act regulates the use of chemicals and hazardous substances on and around worksites; many conservation

techniques, especially cleaning, can be very hazardous to workers and surrounding properties if not carried out strictly according to regulations and specifications. The Ontario Fire Code governs fire safety measures for all buildings, old and new, and contains "retrofit" provisions that empower fire officials to order modifications to buildings for fire-safety reasons, regardless of whether or not any work is being done to a building. These retrofit powers are meant to mesh with the requirements of the Ontario Building Code, and this may mean life-safety studies and negotiations about performance standards similar to those for residential renovation.

Municipal policies

Some towns and cities have taken more initiative than others with these legal tools. For instance, the city of Toronto has included provisions in its official plan to offer a density "bonus" (added floor area for new development) to projects in the central area of the city that incorporate and rehabilitate historic buildings. Toronto also allows the use of "surplus" density rights to be transferred from sites with historic buildings to adjacent or nearby properties. The sale of such density rights may generate funds to help conserve the historic buildings themselves. Toronto has also received authority beyond the powers available in the Ontario Heritage Act to restrain demolition of designated properties.

These and other strategies for combining the goals of city planning and heritage conservation have been tentatively explored by other municipalities. The Planning Act's authorization of special development agreements enables municipalities to negotiate such deals on a project-by-project basis, so that there is as yet little consistency from place to place or from time to time within the province.

Financing conservation

Investing in heritage

It should be obvious (even from the basic principles of conservation) that for any property of heritage importance to survive, it must have an economically viable use and user. In turn, such use depends on the more general economic conditions of a community and its region. A decision to invest in a property of historic or architectural interest can be justified on historic or aesthetic grounds only so far, and then economic utility must carry the day. This is true for both public and private ownership — even the historichouse museum must help support itself financially.

The key to evaluating the financial aspects of heritage is to consider most carefully what professionals call "life-cycle costs" — the complete costs of capital improvements and operating expenses amortized over the expected life of the building (not merely the life of its mortgage). At its most comprehensive, a life-cycle cost analysis may take into account even the energy consumption (and costs) built into the manufacturing of building materials. For projects supported by public agencies, the analysis may also include indirect benefits to adjacent economic activities (for instance, expenditures in nearby businesses by visitors to a cultural facility). By understanding all aspects of building construction and operation costs beyond the simple short-term analysis, an owner can assess how much an existing building can contribute to long-term costs and savings by balancing the financial and other credits represented by its existing state against the costs of conservation and rehabilitation for renewed use into the future.

In most cases, a cold-blooded analysis of this sort will not demonstrate huge savings for conservation over new construction — nor, for that matter, will new construction have much of an edge either. But when the non-financial contributions of heritage buildings are added to the balance (summed up in such elusive characteristics as pride of place and community stability), conservation invariably ends up being far more sensible and economical, in the broad sense of the word, than demolition and new construction as a way to renew properties and communities.

Conventional lending

Most construction is financed through loans from credit institutions: banks, trust companies, credit unions, insurance companies. These are generally conservative institutions. In Canada, that means (somewhat perversely) that they lend less money and attach more stringent conditions to conservation projects than to new construction. The reasons for this boil down to the tremendous incentives given new construction by the current system of taxation and government expenditure. This fiscal context has existed for many decades, in order to promote general economic development, and seems unlikely to be much modified in the foreseeable future, notwithstanding periodic attempts at reform.

For instance, a bank may offer 75 per cent financing of a new-building project with a five-year term, but only 60 per cent on a threeyear term for a rehabilitation project (and at a higher interest rate). The differential reflects the bank's lower opinion of the future worth of the rehabilitation project, and forces the owner to be far more aggressive about other sources of financing or far less generous in spending money on conservation work. This is so despite the undeniable financial advantages of most rehabilitation projects occupants may be able to move in sooner to generate cash flow, some repairs can proceed while users are occupying other parts of the building, and government approvals can often take place more quickly than for new buildings, especially in built-up neighbourhoods.

The biggest problem with this attitude of conventional lenders is the dangerous cost-cutting that such discounted lending encourages. Rehabilitation projects are doubly constrained, first by a taxation system that bonuses new construction by permitting accelerated depreciation of new work, and then by the unwillingness of lenders to extend credit on the same terms as new work. Only where an institution is satisfied that the local property market will grow faster than the norm and make the rehabilitation project immediately worth more than the purchase price plus improvements will there be any prospect of financing to new-building norms.

A good architect can make an old house look a lot better by just discussing the cost of a new one. *Anonymous*

For comments and advice on private-sector financing, see REAL81, BENN79, REIN79, WARN78 and NATI76. For publicsector projects, see REAL81 and KALM80b. Grant, loan and taxabatement programs are in constant flux; for current programs, whether public or private, consult the local municipal government or LACAC, as well as provincial heritage groups and agencies. Federal funding programs exist from time to time, but are almost invariably shared-cost partnerships with provincial and private contributors.

And in those cases, property speculation will probably have pushed the purchase price up even before work begins. The financial success of privately funded conservation is thus as much a matter of luck and good timing as it is of cool calculation.

For income-generating projects, lenders will expect to see a fully worked-out balance sheet of revenues, capital expenditures and operating expenditures. In many cases, they will also want evidence that tenants or users have already committed themselves to the project and may even wish to see the designs and specifications for the building work itself. On the positive side, the availability of grants or loans from public agencies for heritage work may loosen up the purse-strings and prompt a higher contribution from a lender. For owner-occupied residences in larger centres, it is now much less difficult than it once was to get mortgage-based financing for "home improvements", but in other areas it may prove difficult to get such financing without some government guarantee.

Grant and loan programs

Provincial and federal governments have been unwilling to make fundamental changes in the fiscal context affecting building and conservation. Instead, they have established programs of direct grant or loan support for building conservation and rehabilitation. These programs come in several guises. Almost all direct assistance for conservation comes from provincial and provincially aided municipal programs; it may take the form of specific "heritage" aid, more general community renewal assistance, or help from funds aimed even more broadly at economic development at a regional or sectoral scale.

Heritage-directed aid in Ontario has come in the past primarily from the Minister responsible for heritage and culture, and from the Ontario Heritage Foundation; in some cases these provincial funds supplement municipal financial assistance. In all cases, the owner is expected to raise the lion's share of the funding required for any project. There have been and continue to be programs directed at different conditions. There may be municipally administered grants made available on a broad basis to owners of any designated property for work needed to

conserve the features for which the property was designated. More substantial funding for similar work has been made available directly from the provincial government or the Foundation for heritage district improvements, and for conservation work on cultural, institutional and community facilities. The government or the Foundation has also provided aid to non-capital heritage projects, such as studies, inventories, publications and events that themselves expand public awareness and activity in heritage conservation.

In recent years the provincial government has encouraged and aided the formation of community heritage funds to extend such support to an even wider range of situations. Nevertheless, there are no permanent programs for such assistance. Their availability in the long term will depend on how well the present generation of programs fare.

Some municipalities, aided or not by matching dollars from the province, have small-scale heritage foundations for special projects, and help from these funds should be sought for projects of local importance.

Community development and renewal

programs are funded by several provincial agencies, most notably those ministries responsible for housing, planning and the environment. Such programs provide support for everything from planning studies to capital expenditures for upgrading utilities and community buildings. They are not directed specifically to heritage conservation, but are clearly of great influence on local opportunities for conservation work. From time to time there are also more focused provincial programs that promote upgrading of housing and conversion of non-residential buildings into housing units. There have been special programs to assist revitalization of main-street commercial areas and commercial façades, as well as broader community infrastructure efforts.

These programs are normally available only through municipalities; they are tied to municipal planning policies and initiatives and, in the case of commercial areas, they are often linked with formally established business improvement areas. There have been many cases of close co-operation between

community development and renewal projects and explicit heritage projects, to the point where two agencies may both contribute to different aspects of one project or area.

Economic development incentives

sometimes offer assistance toward heritage projects that happen to meet wider regional development goals. Such incentives are usually restricted to areas whose economies are not prospering, though small business development aid is normally available throughout the province. The most conspicuous programs, through provincial



agencies responsible for tourism, comprise assistance to "tourism infrastructure", to facilities (and to supporting studies and plans) that offer accommodation and support to tourists and visitors, rather than to the building of actual attractions. Such capital assistance can be invaluable in conserving places away from urban centres. Programs to assist the establishment of small businesses may also be useful in capital work on existing buildings, and thus to heritage conservation.

From time to time, special funding agreements between federal and provincial agencies permit capital assistance to cultural facilities, industries and other groups whose programs may include the revitalization of buildings or sites of heritage importance. Such programs, though infrequent, may offer assistance far beyond the levels available through heritage-specific funds.

Taxation

There exists in the United States a program of income tax credits for "certified" rehabilitation work, that is, building conservation work that meets the standards of the Secretary of the Interior for quality and integrity. This program, though altered somewhat in recent years, has prompted private investments of billions of dollars in high-qualityarchitectural conservation. No such program exists at either federal or provincial levels in Canada. Nor are there breaks in property taxation for heritage conservation. Unlike the United Kingdom, Canada offers no exemption from sales tax for materials and fees for building conservation. Accordingly, much of the grant aid available from sources outlined above will go toward paying taxes on all aspects of the work. These taxes also apply to new construction — but new construction is allowed a more rapid rate of capital depreciation, and thus a better tax advantage. Despite lobbying by preservation groups, there has been little action to change this situation in recent federal or provincial tax-reform proposals.