



The Evaluation of Historic Buildings



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**The Evaluation
of Historic
Buildings**

Harold Kalman

This is the second of a series of Parks Canada booklets designed for those directly involved in classifying heritage buildings. The first booklet of this series *The Buildings of Canada* is a concise guide to Canadian architectural styles. This second booklet presents guidelines for the evaluation of historic buildings; the third in the series will deal with the problems of researching heritage properties.

These booklets have been prepared under the sponsorship of the Canadian Inventory of Historic Buildings which was established in 1970 and subsequently developed into a major heritage resource centre. The inventory reflects the interest the department has long had in the identification and preservation of Canada's history.

Foreword

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Building Evaluation Sheet

Name GABRIOLA (B.T. ROGERS HOUSE)
 Location 1531 DAVIE STREET
VANCOUVER, B.C.
 Reference Number 10 101 0013 015 31



A Architecture		(Maximum 35)			
1 Style	DERIVED FROM QUEEN ANNE	20	10	5	0
2 Construction	SAID TO BE FIRST CONCRETE BASEMENT IN VANCOUVER	15	8	4	0
3 Age	1900 - 1901	10	5	2	0
4 Architect	SAMUEL MACLURE	8	4	2	0
5 Design	VERY HANDSOME EXTERIOR; GAZEBO GOOD FENCE	8	4	2	0
6 Interior	SUPERB WOODWORK AND GLASS (BY BLOMFIELD)	4	2	1	0

B History		(Maximum 25)			
7 Person	B.T. ROGERS: LEADING INDUSTRIALIST (SUGAR)	25	10	5	0
8 Event		25	10	5	0
9 Context	LAST GREAT MANSION/GARDEN IN WEST END	20	10	5	0

C Environment		(Maximum 10)			
10 Continuity	AREA HAS MIXTURE OF HIGH AND LOW-RISE BUILDINGS	10	5	2	0
11 Setting	COMPATIBLE	5	2	1	0
12 Landmark	CONSPICUOUS WEST END LANDMARK	10	5	2	0

D Usability		(Maximum 15)			
13 Compatibility	RESIDENTIAL PERMITTED	8	4	2	0
14 Adaptability	COMMERCIAL PERMITTED	8	4	2	0
15 Public		8	4	2	0
16 Services	PARKING CAN BE DEVELOPED TO NORTH	8	4	2	0
17 Cost		8	4	2	0

E Integrity		(Maximum 15)			
18 Site	ORIGINAL SITE	5	3	1	0
19 Alterations	EXTERIOR & GROUNDS INTACT; INTERIOR SLIGHTLY ALTERED	5	3	2	0
20 Condition	WELL MAINTAINED	5	3	2	0

Total Score Group		A	B	C	D
		91			

Evaluated by H.K. Date 25/3/78
 Recommendation EXTERIOR & GROUNDS SHOULD BE PRESERVED INTACT; MAY BE ADAPTED FOR COMMERCIAL USE RESPECTING INTERIOR WORK
 Reviewed by J.M. Date 10 April 1978
 Comments May be adapted by Hy's as a restaurant
 Approved by SB. Date 17-12-78
 Comments Became Hy's Mansion, 1978

A completed building evaluation sheet, showing the use of the evaluation system described in this booklet.

Conservation—or, if one prefers, preservation—has become an important priority in Canadian life. For many good reasons older buildings are now often saved and re-used instead of being demolished and replaced. We realize that we must retain the best of our cultural heritage; we recognize that some old structures can be adapted well to productive new uses; we believe that it is wasteful to destroy re-usable resources; and, quite simply, we like the look and the arrangement of spaces in old buildings. In addition, the economic climate has made the rehabilitation of old buildings cheaper than most new construction. Some older structures will be conserved simply because it is profitable to do so, while others may have to be given legal protection against demolition.

Many means of protecting buildings are available to us. The most constructive are those that involve long-range planned protection—what might be called preventive conservation—in which significant historic buildings may be safeguarded by legislation, by zoning, or by economic incentives before there is any serious threat to remove or deface them.

Introduction



The Globe Theatre in Regina, built as a bank, shows how buildings can be adapted to productive new uses. (Photo by author.)

While the exact procedure for conservation planning varies from one jurisdiction to another, the method usually follows a three-step pattern of survey, evaluation, and policy.

A *survey* of buildings, consisting of on-site recording and careful research, may be done by the heritage division of a city's planning department, by the staff of a provincial government's ministry of culture, or by a recorder, historian, or analyst working for the federal government's Canadian Inventory of Historic Building (CIHB). In other cases a local historical society, a community association, or a private consultant may carry out the survey.

The results of this survey are then brought before an appointed board. The board may be a local citizens' committee set up to advise city council, or it may be a provincial or a federal board made up of eminent scholars. Its members are asked to assess each building or area and make specific judgments on its architectural and historical significance. This exercise is an *evaluation*. In communities without such advisory boards, the evaluation is usually performed by the same people who conduct the survey.

The board's recommendations, supported by information from the survey and the subsequent evaluation, are then presented to the elected officials. Guided by the advice of their staffs, they will develop an appropriate *policy* to safeguard and designate as historic sites those buildings or areas they consider to be particularly significant.

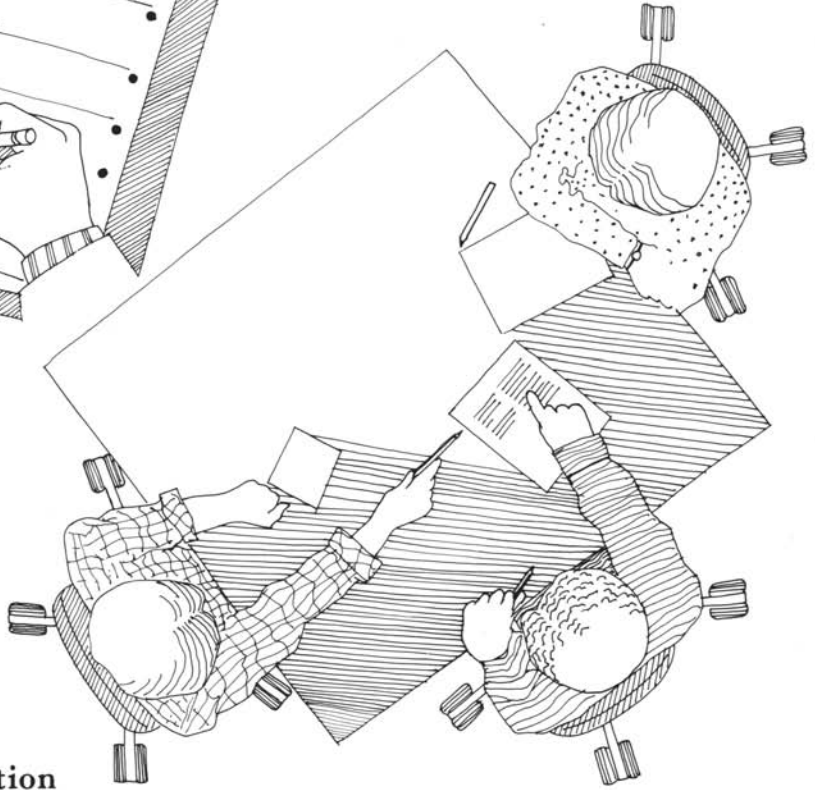
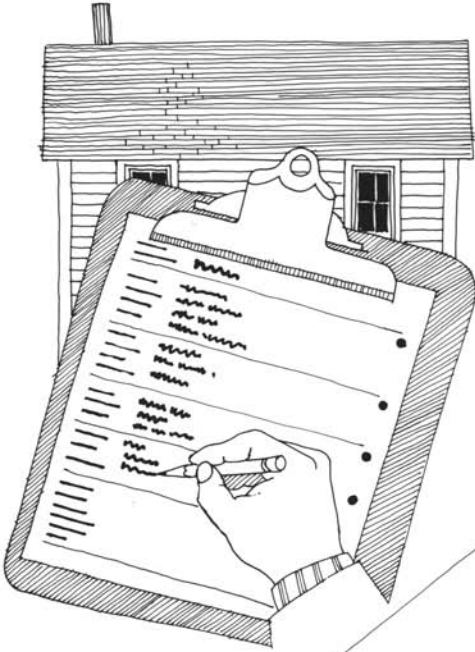
The second step—the evaluation—is a vital part of the conservation process. Evaluations may be carried out simply and rationally by establishing criteria, judging buildings against them, and grading them on a scale. Only then can it be decided which buildings should be conserved.

This booklet describes a simple and practical method of evaluating buildings. Its primary purpose is to help those people who must evaluate buildings to determine *which* buildings in their communities are the most significant and deserve conservation, and *why* they are so. It is intended to take some of the mystique out of architectural value judgments, and to show that these may be made rationally, objectively and confidently.

This booklet has been written for all people involved in some aspect of conservation, whether they be private citizens, professional planners, or government officials. For simplicity the booklet refers only to individual buildings and not to historic areas, but the same principles and techniques may be applied without change to groups of buildings or to entire districts.

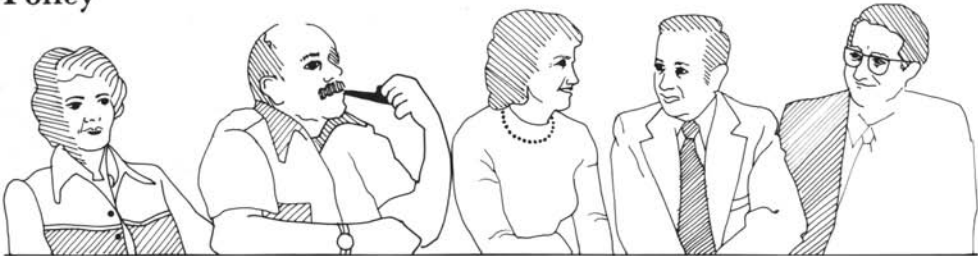
Since this booklet is primarily devoted to evaluation—the second of the three steps in the conservation process—this most important stage is discussed first. The second and third parts of the booklet offer brief descriptions of the survey and policy stages.

Survey



Evaluation

Policy

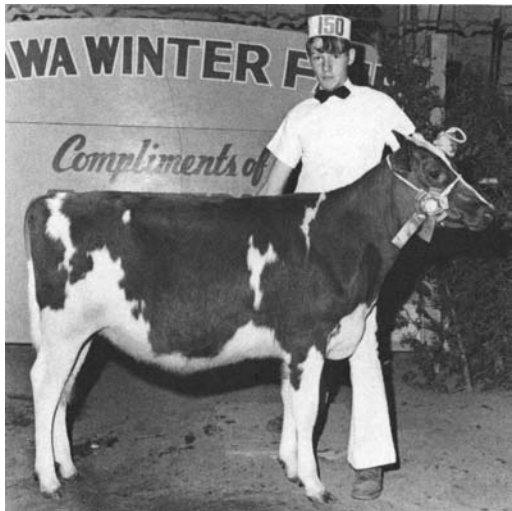


The survey, the evaluation, and the policy are the three steps in the development of a conservation plan.

Principles of Evaluation

Evaluation—also called assessment or judgment—is basically an objective exercise that determines quality. As every educator knows, there is no perfectly reliable or perfectly “objective” measure of capabilities, even with the use of such seemingly precise data as grades and test scores.¹ Nevertheless, these techniques allow an assessor to come much closer to the ideal of objectivity.

People accept the concept of evaluation in most areas of life: teachers grade children, prospective employers evaluate job applicants, consumer magazines rate manufactured goods, and guidebooks judge restaurants. The best animals win ribbons, the best athletes, medals. These kinds of evaluations are performed in much the same manner. Authorities establish a set of stand- and—or *criteria*—for a particular class of object. Different aspects of the object are then measured against each criterion. The better the objects fare in comparison with the criteria, the greater their quality is deemed to be.



Livestock are awarded ribbons for having been judged the best in the show. (Ontario Ministry of Agriculture and Food photo; courtesy of Ayrshire Breeders' Association of Canada.)

The Evaluation

No matter how well the grading is done, two kinds of disagreements may occur. Firstly, an object may be a borderline case and graders may not agree on which side of the standard it falls. (Should the pupil be passed or failed?) Often there is no resolution to this problem, but grades will usually be no more than one level apart—an acceptable error. In the second kind of disagreement, criteria may be disputed.² (Should a passing grade have to be over 50 per cent or over 65 per cent?) These disagreements should be discussed and resolved before the evaluation begins. If the criteria are agreed upon and the evaluation is performed conscientiously—even by a relatively inexperienced person—there is usually little debate over the result.

Should the criteria be changed, then the evaluation must also change. For example, if an apple's quality is based on size, colour, texture, and freedom from blemishes, and then these criteria are challenged—for instance, when it is declared that pesticides are worse than blemishes—then the original judgment must be revised. In this case, a pesticide-free apple with worm holes becomes acceptable.



An apple inspector measures blemish size and thereby determines the apple's grade. (*Agriculture Canada.*)

Evaluations in Related Disciplines

A number of formal systems of evaluation are being developed by planners in the United States as a result of the requirement for Environmental Impact Statements under the National Environmental Protection Act of 1969.⁴¹ Often based upon complex mathematical models, these systems consider cultural and aesthetic criteria alongside physical and economic ones. Most studies in this field are concerned with the effects of pollution and transportation development upon the natural ecology, but some consider their impact upon historic buildings and sites.⁴²

Impact assessment, which differs from building assessment in that it weighs the relative value of alternative situations rather than of alternative objects, has been derived from the economists' cost-benefit analysis. A sophisticated system that uses these techniques of measuring "opportunity costs" (costs and benefits) in order to evaluate cultural resources as a part of the whole life system of the city has been proposed by Stephen W. Jacobs and Barclay G. Jones.⁴³

In another area of research that is rapidly maturing, assessment techniques that are more perceptual & oriented are used by psychologists, social scientists, and architects to measure environmental quality.⁴⁴ Their objective is to provide data that will lead to better architectural and environmental design.⁴⁵

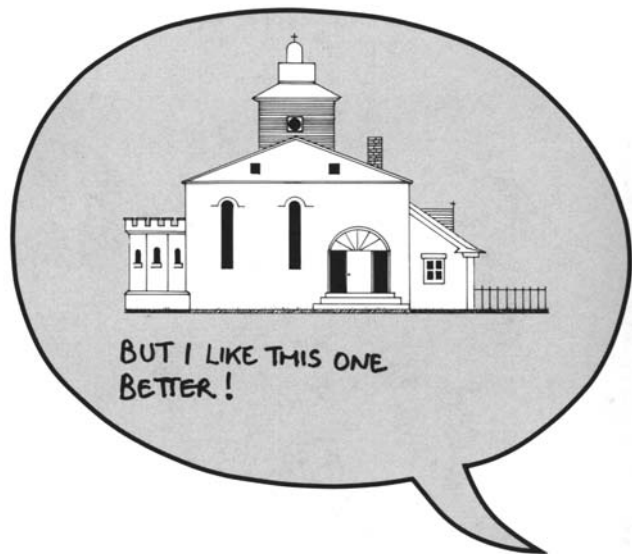
Other architects are developing techniques for judging the merits of recently completed projects.⁴⁶ Planners and urban scientists offer methods for assessing urban landscapes,⁴⁷ and new techniques are emerging for evaluating rural landscapes.⁴⁸

These methods and skills have not yet been transferred to the evaluation of historic buildings. Techniques that rely heavily upon the intuition of the assessor have remained the rule.



When an evaluation strays into the field of aesthetics (and rating a building is partly an aesthetic activity), the exercise is sometimes dismissed as a subjective value judgment without a basis in “fact.” This attitude is misleading. Statements of *value* are essentially the same kinds of declarations as statements of *fact*; their only real difference is in the degree of unanimity with which the statements are received. The way to place so-called matters of value in the realm of objectivity—in other words, the way in which to grant them enough unanimity to be accepted as facts—is simply to establish sound and acceptable criteria upon which the judgments can be made.

Statements of fact and statements of value differ from statements of *taste*. The latter are personal and subjective opinions based solely on an individual’s likes and dislikes. Taste needs no criteria.



“This building is good” is an objective statement of value (or, indeed, of fact!). “I like that building” is a subjective statement of taste. Persons involved in the evaluation of buildings must learn to differentiate the one kind of statement from the other.

Evaluating Buildings

The evaluation of buildings hardly differs from the evaluation of pupils or apples. If sound and widely accepted criteria are chosen, if survey data are thorough and accurate, and if evaluations are made conscientiously (by people knowledgeable in architecture and its history), then buildings may be safely rated against these standards.

The criteria are established by authorities who are the architects, historians, and architectural historians familiar with the buildings of the area. If these experts are the same people who do the evaluation—as are the members of the Historic Sites and Monuments Board of Canada—then it is not necessary to prescribe a formal and detailed method of evaluation. Since, however, less experienced people generally do the evaluation in Canadian municipalities, it is best to spell out with care the manner of proceeding from criteria to judgments.

In the simplest kind of architectural evaluation system, a set of criteria is established as a group of absolute values and buildings are measured against them. If a building is judged as meeting these standards, it is deemed to be of special significance .

The Historic Sites and Monuments Board of Canada operates in this manner. Its policy guide defines “Criteria for Designating National Historic Sites.” One of these criteria, for example, is that “the site or structure shall have been prominently associated with the life of a great Canadian personage.”³ A building which meets the board’s criteria for national significance is recommended to the minister for commemoration. The National Register of Historic Places in the United States and the newly instituted World Heritage List likewise have sets of carefully defined criteria against which applications are measured.⁴



Bellevue House in Kingston, Ontario, where Sir John A. Macdonald lived for a year, has been commemorated as a national historic site. (*Shawn MacKenzie, Parks Canada.*)



The Hotel Vancouver, *left*, was recommended by the Vancouver Heritage Advisory Committee for category A designation because it is a good example of an important architectural style and is a commonly acknowledged landmark. The nearby Georgia Hotel, *right*, was deemed only to have architectural merit, and was recommended for the lesser category B designation. (*Photos by author.*)

This kind of system sets up a yes-or-no situation. Either a building merits inclusion on a particular list, or it does not. This method is appropriate when the object of the evaluation is to establish a single list of superior objects, all of which receive the same recognition or protection.

Often, however, it is desirable to differentiate among various kinds of significant buildings. In Vancouver, for example, that city's Heritage Advisory Committee recommends two categories of formal designation: category A (in which it gives "the strongest possible recommendation for the preservation of the building's exterior") and category B (in which "excellent" proposals for change are given consideration). Buildings in a third group, category C, are recorded but not designated.⁵ In Alberta and Quebec, properties of the greatest significance are "classified," while those of secondary importance are "registered" or "recognized."⁶

The separation of significant buildings into distinct lists would seem to require a more sophisticated evaluation system than the pass-or-fail method. Most jurisdictions that do this set out a fairly long list of criteria and measure individual features of a building against each criterion. A series of verbal grades is assigned to the various

criteria. The final evaluation is based upon an average of the verbal grades. A building that receives, let us say, a rating of *excellent* in three or more areas may be deemed to belong to the highest class.

For our purposes, a four-grade scale is most helpful. The four grades are *excellent*, *very good*, *good*, and *fair/poor*. The first two are both significantly better than average. The third is average. *Fair* and *poor*, both below average, are combined into the fourth level.

Some jurisdictions use numerical scoring systems to reach a final score. The use of numbers is the most accurate and most flexible manner of reaching a meaningful evaluation. In numerical systems, numerical values are usually assigned to the various verbal grades. The final evaluation of a building is derived from the sum of the scores for each criterion. The better the total score that a building receives, the better it is judged to be.

Criteria

Various sets of criteria for evaluating buildings have been proposed over the years. The following list includes a set of standards that is useful and comprehensive, without being exhaustive.⁷ The list contains five basic criteria (architecture, history, environment, usability, and integrity), under which there are 20 detailed criteria (style, construction, and so on). Each detailed criterion is defined in the first column. The explanation of the four grades is given in the second column. Comments are offered in the third column.

These criteria are applicable to the evaluation of isolated buildings or those that are a part of larger heritage districts. Other sets of criteria can be developed for the assessment of entire historic areas,¹² historic sites, and non-architectural structures (such as dams, military earthworks, street furniture, or gardens).¹³

Criterion	Grades	Comments
A Architecture		
1 Style		
Notable, rare, unique, or early example of a particular architectural style, type, or convention.	E Perfect or extremely early example if many survive; excellent example if few survive.	This is best done by comparing the building to as many other buildings of a similar style as is possible, and assessing it in terms of the aims of its designer (as they are understood).
	VG Excellent or very early example if many survive; good example if few survive.	
	G Good example if many survive.	Data concerning the number of survivors will be obtained from the survey.
	F/P Of no particular interest.	
2 Construction		
Notable, rare, unique, or early example of a particular material or method of construction.	E Perfect or extremely early example if many survive; excellent example if few survive.	This may be evaluated only if the assessor is certain of the nature of the structure.
	VG Excellent or very early example if many survive; good example if few survive.	
	G Good example if many survive.	Data concerning the number of survivors will be obtained from the survey.
	F/P Of no particular interest	
3 Age		
Comparatively old in the context of its region.	E Built between dates 1 and 2.	For the meanings of dates 1, 2, 3, and 4, and for a useful scale of ages, see page 16.
	VG Built between dates 2 and 3.	
	G Built between dates 3 and 4.	
	F/P Built since date 4.	

Criterion	Grades	Comments
4 Architect		
Designed or built by an architect or builder who has made a significant contribution to the community, province, or nation.	E Architect or builder of particular importance to the history of the community, province, or nation.	The significance of the architect or builder must itself be evaluated by rational criteria. See comments for detailed criterion no. 7 (person).
	VG Architect or builder of considerable importance to the history of the community, province, or nation.	
	G Architect or builder identified and known, but of no particular importance.	
	F/P Architect or builder unidentified or unknown.	
5 Design		
A particularly attractive or unique building because of the excellence, artistic merit, or uniqueness of its design, composition, craftsmanship, or details.	E Excellent.	For attempts to analyze and quantify excellence in design, see endnote 8.
	VG Very good.	
	G Good.	
	F/P Fair or poor.	
6 Interior		
Interior arrangement, finish, craftsmanship, and/or detail is/are particularly attractive or unique.	E Excellent.	The interior is not always accessible or relevant. The purposes of the specific evaluation will determine whether this should be evaluated.
	VG Very good.	
	G Good.	
	F/P Fair or poor.	

Age

A different scale of building age must be established for each city, region, or province. Determine the date of construction of the oldest extant building in the area, and calculate the years that mark one-eighth, one-quarter, and one-half of the interval between that date and the present. Adjust each of these years to correspond to a date that forms a meaningful watershed in the history or architecture of the area under consideration. (If no such meaningful date can be found, a convenient round number may be used.) The accompanying table demonstrates this method.

For the date of a building, one may take the beginning of construction. For buildings erected in stages, the earliest building campaign from which a significant amount remains may be used to establish a date.

The age of a building increases, of course, every year. The watershed dates will therefore need revision from time to time, but probably only every decade or two.

Place	Date Grade	1	2	3	4	5
		E	VG	G	F/P	Present
		Oldest Building	1/8	1/4	1/2	Present
Quebec City						
	Actual	ca. 1670	1709	1747	1824	1979
	Adjusted		1700	1759 (Battle of the Plains of Abraham)	1825	
Halifax						
	Actual	1749	1778	1807	1864	1979
	Adjusted		1783 (United Empire Loyalists)	1815 (end of war)	1867 (Confederation)	
Winnipeg						
		ca. 1835	1853	1871	1907	1979
			1850	1873 (incorporation)	1900	
Vancouver						
		ca. 1865	1879	1894	1922	1979
			1886 (incorporation & fire)	1897 (Klondike)	1914 (World War I)	

Criterion	Grades	Comments
B History		
7 Person		
Associated with the life or activities of a person, group, organization, or institution that has made a significant contribution to the community, province, or nation.	E Person, group, etc. of primary importance intimately connected with the building.	The significance of the person, group, organization, or institution must itself be evaluated by rational criteria. Some historical distance is necessary, so the significant factor should probably have been important at least a generation or two ago.
	VG Person, group, etc. of primary importance loosely connected, or person of secondary importance intimately connected with the building.	
	G Person, group, etc. of secondary importance loosely connected with the building.	For the purposes of a municipal evaluation, local significance is as important as provincial or national significance. For provincial or national evaluations, the emphasis may be shifted.
	F/P Building has no connection with person, group, etc. of importance	
8 Event		
Associated with an event that has made a significant contribution to the community, province, or nation.	E Event of primary importance intimately connected with the building.	See comments for detailed criterion no. 7 (person).
	VG Event of primary importance loosely connected, or event of secondary importance intimately connected with the building.	
	G Event of secondary importance loosely connected with the building.	
	F/P Building has no connection with event of importance.	
9 Context		
Associated with, and effectively illustrative of, broad patterns of cultural, social, political, military, economic, or industrial history.	E Patterns of primary importance intimately connected with the building.	A helpful measure of this factor is to consider how useful the structure would be for the teaching of cultural history. ⁹
	VG Patterns of primary importance loosely connected, or patterns of secondary importance intimately connected with the building.	
	G Patterns of secondary importance loosely connected with the building.	
	F/P Building has no connection with important patterns.	

Criterion	Grades	Comments
C Environment		
10 Continuity		
Contributes to the continuity or character of the street, neighbourhood, or area.	E	Of particular importance in establishing the dominant character of the area.
	VG	Of importance in establishing or maintaining the dominant character of the area.
	G	Compatible with the dominant character of the area.
	F/P	Incompatible with the dominant character of the area.
11 Setting		
Setting and/or landscaping contributes to the continuity or character of the street, neighbourhood, or area.	E	Of particular importance in establishing the dominant character of the area.
	VG	Of importance in establishing or maintaining the dominant character of the area.
	G	Compatible with the dominant character of the area.
	F/P	Incompatible with the dominant character of the area.
12 Landmark		
A particularly important visual landmark.	E	A structure which may be taken as a symbol for the city or region as a whole.
	VG	A conspicuous and familiar structure in the context of the city or region.
	G	A conspicuous and familiar structure in the context of the neighbourhood.
	F/P	Not particularly conspicuous or familiar.
		A building may be declared a landmark if it is a prominent or conspicuous structure that has acquired for the community a special visual or sentimental value that transcends its function. Landmarks give distinctive character to cities or areas. ¹⁰

Criterion	Grades	Comments
D Usability		
13 Compatibility		
Present use is compatible with the current land use or zoning of the site, street, or neighbourhood.	E Present use is compatible with current land use and zoning.	This quality may change as zoning or adjacent land use is changed.
	VG Present use is compatible with proposed land use and zoning.	
	G Present use is not found elsewhere in the area, but is compatible.	
	F/P Present use is not compatible with land use or zoning.	
14 Adaptability		
Potentially adaptable to compatible re-use without harm to the architectural elements which contribute to its significance.	E Proposed adaptive use is compatible with current or proposed land use and zoning, and will not harm significant architectural elements.	This requires making certain assumptions about possible adaptive uses that are appropriate to current social patterns and zoning.
	VG Proposed adaptive use is compatible with current or proposed land use and zoning, but may slightly alter significant architectural elements.	
	G Proposed adaptive use would require a practicable zoning change, and may slightly alter significant architectural elements.	
	F/P Proposed adaptive use is not compatible with land use or zoning, or would destroy significant architectural elements.	

Criterion	Grades	Comments
D Usability (continued)		
15 Public		
Capacity for needed public, educational, or museum use.	E	Proposed public use is critically needed in the area and is feasible without major alterations.
	VG	Proposed public use is critically needed, but would require significant alterations; or proposed use would be an amenity and is feasible without major alterations.
	G	Proposed public use would be an amenity and would require significant alterations.
	F/P	Proposed public use is not needed and/or would require very major alterations; or no proposed public use.
16 Services		
Adequately serviced and protected for contemporary use.	E	Protection, utilities, and parking meet all current standards and requirements.
	VG	One of these services must be up-graded and can be done without major difficulties.
	G	Two of these services must be up-graded and can be done without major difficulties.
	F/P	Three of these services must be up-graded; or up-grading would entail serious difficulties
17 Cost		
Cost of preservation, restoration, maintenance, and/or interpretation is reasonable.	E	Cost would be significantly lower than comparable new construction.
	VG	Cost would be somewhat lower than comparable new construction.
	G	Cost would be about the same as comparable new construction.
	F/P	Cost would be higher than comparable new construction.

Criterion	Grades				Comments	
E Integrity						
18 Site						
Occupies its original site.	E	Has not been moved.				
	VG	Has been placed on a new foundation in its original location.				
	G	Has been relocated or re-oriented on the original property and near the original site.				
	F/P	Has been moved to a new site.				
19 Alterations						
Has suffered little alteration, and retains most of its original materials and design features.	<i>Decorative trim e.g., comice)</i>					
		<i>Upper floors</i>	<i>Ground floor</i>	<i>Interior</i>		
	E	E	E	E	Unchanged	
	VG	G	VG	E	Changed, but character retained	
	G	F/P	G	VG	Character destroyed	
<p>Normally, if two or more kinds of alteration are found in one building, only the lowest score should be recorded.</p> <p>If alterations or additions are sufficiently old and sensitive, they may be judged on their own merits as integral parts of the building.</p> <p>The above are only guides, and may be modified by common sense.</p>						
20 Condition						
Building is in good structural condition.	<i>Main fabric</i>					
		<i>Additions</i>	<i>Roof</i>	<i>Interior</i>	<i>Grounds</i>	
	E	E	E	E	E	Satisfactory
	G	VG	VG	VG	E	Mediocre
	F/P	G	G	G	VG	Poor
<p>This criterion should be considered only if the structural condition can be assessed accurately.</p> <p>As with alterations, the lowest applicable score should be recorded.¹¹</p>						

Regional Differences

The purpose of an evaluation is to identify the best buildings within the area being surveyed. An evaluation conducted by a provincial government tries to find the buildings of greatest provincial significance, while a local assessment looks for those that are the best in the town.

The criteria listed here are all general enough to be applied across the country. In interpreting them, assessors should give full credit to local phenomena. Thus, for example, when considering history, the home of a town's founder is more important in a local survey than the residence of a provincial leader; the latter, on the other hand, would be more highly valued in a provincial survey.

When assessing architecture, buildings should be evaluated in their local and regional context. Standards may differ in different areas. "Style" and "construction" should give full credit to the earliest and the best in the survey area. The commercial style and reinforced concrete construction, for example, reached Vancouver a decade or more later than Montreal, and so "early" means different dates in the two cities. "Architect" should reward important local builders and "design" should consider local architectural features. "Age" should be adjusted to reflect local chronology (see page 16).

Buildings that are typical of their region will likewise fare well under the criterion of environment; those that are out of place will not. A brick Gothic Revival cottage that is valued in an Ontario town will look out of place on a Fredericton avenue, a wooden "boomtown" front that contributes to the continuity of an Alberta town may be disruptive in Quebec.

The criteria may also be used in a way that does not penalize vernacular architecture—those buildings designed by persons who were not trained as architects and were guided by local conventions.⁴⁹ In good vernacular architecture, it is important that the building be representative of local style and materials, and can be assessed accordingly under "style," "construction," and "design." In each case, a building should be rated against others of its kind. With vernacular architecture, the identity of the builder is immaterial.



The Romkey house in Lunenburg, Nova Scotia, *top*, built in the 1760s, is one of the oldest houses in this historic town and therefore has considerable architectural significance. (*Photo by author.*) The Manitoba legislative building, *bottom*, is also a very significant structure. Comparisons between the two would be pointless, however, because their scales, styles, functions, uses, and regions are so different. (*Canadian Government Office of Tourism.*)

Grading

The evaluation of a building may initially be done by a single person or by a group, although it will be the responsibility of a board or a committee. Often a single evaluation by a qualified person will be sufficient. Alternatively, different people may judge different criteria, or each member of a group might rate each building; the group's grades would then be averaged. If different people evaluate different buildings, they should be certain that they have the same understanding of the grading method.

In order to evaluate a building, it is necessary to have a familiarity with the architecture and the history of the region. The assessment of style and design should be done by a person particularly well versed in the history of architecture.

The data from the survey (including both on-site recording and research) must be accurate and reasonably complete before the evaluation process begins. Once this information has been studied, each building should be considered objectively and grades assigned. Comparisons should be made between buildings of a single style and in the same region. This will make the relationships meaningful—apples will be compared to apples, oranges to oranges—and will reduce the influence of the assessor's personal taste.

The use of grades best allows an assessor to approach the goal of objectivity. They may sometimes deceive by appearing even more precise than they actually are: they nevertheless represent the most useful available measuring tool if set out rationally and sensibly.

Verbal grades (excellent, very good, and so on) are most suitable when evaluating buildings in small surveys, or when an approximate score suffices.

An evaluation sheet should be drawn up in a manner that enables graders to circle the appropriate grade opposite each criterion. Space should be left so that concise reasons for the grades may be written to the side. The evaluation sheet should be attached to the form that has been used to survey the same building.

One can measure a building's value by comparing its grades with those for other buildings.

Building Evaluation Sheet

Name

Location

Reference Number

A Architecture

<hr/> 1 Style	E	VG	G	F/P
<hr/> 2 Construction	E	VG	G	F/P
<hr/> 3 Age	E	VG	G	F/P
<hr/> 4 Architect	E	VG	G	F/P
<hr/> 5 Design	E	VG	G	F/P
<hr/> 6 Interior	E	VG	G	F/P

B History

<hr/> 7 Person	E	VG	G	F/P
<hr/> 8 Event	E	VG	G	F/P
<hr/> 9 Context	E	VG	G	F/P

C Environment

<hr/> 10 Continuity	E	VG	G	F/P
<hr/> 11 Setting	E	VG	G	F/P
<hr/> 12 Landmark	E	VG	G	F/P

D Usability

<hr/> 13 Compatibility	E	VG	G	F/P
<hr/> 14 Adaptability	E	VG	G	F/P
<hr/> 15 Public	E	VG	G	F/P
<hr/> 16 Services	E	VG	G	F/P
<hr/> 17 Cost	E	VG	G	F/P

E Integrity

<hr/> 16 Site	E	VG	G	F/P
<hr/> 19 Alterations	E	VG	G	F/P
<hr/> 20 Condition	E	VG	G	F/P

Evaluated by _____ Date _____

Recommendation _____

Reviewed by _____ Date _____

Approved by _____ Date _____

Comments _____

An evaluation sheet appropriate for evaluating with verbal grades.

A Numerical Evaluation from History

The architects for the original parliament buildings in Ottawa were selected in 1859 by public competition. Eighteen architectural firms submitted 23 designs for the centre block ("Parliamentary Buildings") and the east and west blocks ("Departmental Buildings"). Two officials of the Department of Public Works, Samuel Keefer and F.P. Rubidge, selected the winner by evaluating the entries with numerical scores. They set out ten criteria, and assessed each design by giving it a score between 0 and 10 (the "modulus of superiority") for each criterion. The highest total scores awarded by Deputy Commissioner Keefer (who was the higher-ranking public servant of the two!) won the competition

Fuller and Jones's winning design for the centre block received 89 points from Keefer and 62 from Rubidge. Hindsight suggests that their judgments were sound, not least of all because they awarded the design only 6 and 3 points respectively for safety against fire—and the building burned down a half-century later. Stent and Laver won the commission for the east and west blocks with 92 points from Keefer and 68 from Rubidge. Keefer's scores were consistently higher than Rubidge's, but their rankings were similar (although not identical), pointing out the desirability of having every building in a competition or a survey evaluated by the same person or group of people.^{A10}



The original parliament building in Ottawa, whose design was judged the best in a public competition, was evaluated using a numerical scoring system. (Public Archives Canada.)

Scoring

Fixed Numerical Scores

When evaluating buildings in larger surveys, and when a precise score is necessary, grades should be translated into numbers.¹⁴

It is best to begin by choosing an arbitrary maximum score—say 100—and then assigning each of the live basic criteria a share of this maximum score. This, of course, requires that the importance to the survey of each criterion be determined—a process which takes careful thought.

An evaluation whose object is simply the commemoration of major historic buildings (for example, by installing plaques) will be concerned mainly with architecture and history. Environment and integrity will be much less important, and usability may not be scored at all. The maximum scores assigned to each basic criterion might then be:

A. Architecture	40
B. History	45
C. Environment	5
D. Usability	0
E. Integrity	10

On the other hand, an evaluation whose object is to protect significant buildings in an urban business district against demolition or tasteless alteration will select and assign importance to different criteria. Continued economic use will be crucial.

Building Evaluation Sheet

Name _____

Location _____

Reference Number _____

A Architecture		(Maximum 35)			
1 Style		20	10	5	0
2 Construction		15	8	4	0
3 Age		10	5	2	0
4 Architect		8	4	2	0
5 Design		8	4	2	0
6 Interior		4	2	1	0

B History		(Maximum 25)			
7 Person		25	10	5	0
8 Event		25	10	5	0
9 Context		20	10	5	0

C Environment		(Maximum 10)			
10 Continuity		10	5	2	0
11 Setting		5	2	1	0
12 Landmark		10	5	2	0

D Usability		(Maximum 15)			
13 Compatibility		8	4	2	0
14 Adaptability		8	4	2	0
15 Public		8	4	2	0
16 Services		8	4	2	0
17 Cost		8	4	2	0

E Integrity		(Maximum 15)			
18 Site		5	3	1	0
19 Alterations		5	3	2	0
20 Condition		5	3	2	0

		Total Score Group			
		A	B	C	D
Evaluated by	Date				
Recommendation					
Reviewed by	Date				
Comments					
Approved by	Date				
Comments					

An evaluation sheet appropriate for evaluating with fixed numerical scores.

This kind of situation will place considerably more importance upon the practical criterion, usability. Environment will be more important than before, because buildings in such an area cannot be considered in isolation. History will be less critical than architecture. The maximum scores assigned to each basic criterion might now be:

A. Architecture	35
B. History	25
C. Environment	10
D. Usability	15
E. Integrity	15

The next stage is to assign a maximum number of points to each of the detailed criteria. The sum of the points for the detailed criteria may exceed the maximum given to their basic criterion, as long as the total that is actually recorded does not exceed it. (In other words, continuity, setting, and landmark may together be worth more than 10 points, as long as the final total for environment is no more than 10.)

When assigning points to each grading level within the detailed criteria, *excellent* should receive considerably more points than *very good* in order to separate the outstanding example from the more usual example. One may use a geometric progression (such as 20-10-5-0) or even a more extreme sequence (such as 20-5-2-0), rather than the common arithmetic progression (20-15-10-5). If plotted on a graph, this kind of sequence would produce a curved line, not a straight line.



Great George Street in Charlottetown, Prince Edward Island, has recently been improved with new paving, curbs, and copper street lights. Historic Province House, at the end of the street, is being restored, and a number of other structures, such as the Hartz-O'Halloran building at the right, have been rehabilitated. As a result of all the changes, the contextual value of the individual buildings is being increased, whereas their intrinsic value remains constant. (Photo by author.)

Flexible Numerical Scores

Situations constantly change. Surveys and evaluations may be carried out for one purpose, then revived years later for another. An evaluation system properly designed to serve the future as well as the present should be flexible enough to accommodate itself to changing values and changing conditions.

The relative significance of a building may vary every time that another structure in its vicinity is built, altered, or demolished. Also, as we learn more about a period, a style, an architect, or a building type, our own values may change. For example, the relatively new interest in industrial archaeology has increased the appreciation of structural innovation and of industrial buildings.

Furthermore, if the data collected for an earlier survey and evaluation are re-used for a new purpose, the relative weighting of the criteria may change, or new criteria may be introduced. Environmental compatibility, for example, may be very important in the evaluation of streetscapes, but will become irrelevant when identifying architecturally significant buildings for a plaquing programme.



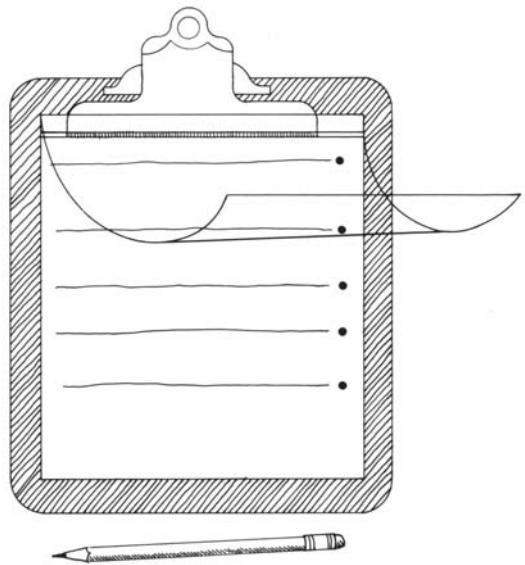
We are only beginning to appreciate monuments of industrial archaeology. These beehive kilns at the Medalta Potteries in Medicine Hat have been designated a classified historic site by the Alberta government. (Photo by author.)

Using Computers

The scoring procedure may also be done with a computer-based retrieval system, thereby eliminating most of the manual busywork. Once the criteria have been selected and points allocated to each, the scores can be totalled by the computer. When criteria or points change, only this basic information need be re-entered into the system.

If a computer-based evaluation system bears the Canadian Inventory of Historic Building reference (geocode) numbers, then survey, and evaluation data can be retrieved in any appropriate category, or combination of categories, of information (such as building use or materials). This would allow correlation of for example, architectural significance with age, and compatibility with district.

Should there also be a concordance between the geocodes and the reference numbers used by municipal governments for assessment, engineering and/or security data (and in many cities these are combined),⁴¹ then the architectural information can interface with the statistical data stored in the cities' computers. For example, architectural importance or physical condition might be compared to assessment values, or the incidence of fire with age or structural materials.



A transparent overlay allows the use of flexible numerical scores.

In order to make the system sufficiently flexible, the verbal grading—which is objective and should not have to be changed—should be done in one operation, and the numerical scoring—which is arbitrary and may be altered at will—in a second one.

This may be done with a two-sheet system. The first is the evaluation sheet on which verbal grades are assigned; space may be left for the addition of further criteria at a later date. Grades are given for each criterion on the scale of E, VG, G, F/P, and reasons are written in.

The second sheet is a transparent overlay which indicates the points allotted to each verbal grade for the particular criterion at hand. Scores for each criterion are marked on the overlay and totalled to give the final score for the building. Should a new evaluation of the same building be carried out later, the assessor need simply provide a revised set of overlays.

The Meaning of the Score

A building's total score, determined by the selection and weighting of the criteria, can be used to place it in one of a series of groups of significance. The following example uses four general groups of buildings: those of major significance; those of importance; those of value as part of the environment; and those of no importance.¹⁵ The point spread for each group cannot be rigidly set out here since different weightings will produce different distributions of scores. However, the following example represents a reasonable grouping:

<i>Points</i>	<i>Group</i>	<i>Description</i>
75 - 100	A	Of major significance
50 - 74	B	Of importance
25 - 49	C	Of value as part of the environment
0 - 24	D	Of no importance

Assessors should use their judgment to determine the proper point spread. Since the object of an evaluation is to determine relative values rather than absolute values, this matter is not so important as it may seem.

As a guide, if every building in an historic area is evaluated, perhaps five to 10 per cent will fall into group A, 30 to 40 per cent into group B, 25 to 35 per cent into group C, and 20 to 30 per cent into group D.¹⁶ Proportionately more buildings will have high scores if the sample includes only selected structures; fewer will have high scores if the survey includes all buildings in a wider, non-historic area.

A building's score—and its consequent group—will form the basis for decisions as to its future in the context of a conservation plan.

Evaluation is but one of three stages in the conservation process. It must be preceded by an architectural survey and followed by the development of a conservation policy. A brief discussion of the survey and policy phases is appropriate here.

A survey consists of on-site recording and of primary and secondary research. A systematic knowledge of the buildings being studied is needed before rational evaluations of the buildings can be made and before decisions about their possible conservation can be reached. A larger-scaled, broadly inclusive study is usually called an *inventory*, and a more intensive one a *survey*, but the two terms are often interchanged.

Three important questions must be answered before undertaking a survey:

1. Which buildings should be surveyed?
2. How much information is required for each building?
3. What previous surveys have been conducted in the area?

The particular circumstances of the survey will help to provide the answers.

Selection of Buildings

If the purpose of the intended survey is to determine which buildings should be offered protection under municipal or provincial heritage legislation, a two-part study may prove to be best.

In the first part of the study a cursory inventory is made of all buildings that appear as if they may have some special significance in the area.¹⁷ A printout from the CIHB (see p. 32) may be used as a starting point. This list is then reduced as

The Survey

necessary to produce a manageable number of better buildings that can be studied properly with the resources at hand. This process of reduction is itself a kind of preliminary evaluation which should be done according to the principles of evaluation discussed above but may be performed informally and somewhat intuitively.

Following the inventory, a detailed survey is made of all buildings on the "short list." As much information as is reasonably possible should be accumulated for each of the buildings.

If the purpose of the survey is to determine what kind of action should be taken within a defined study area or historic district, then every building in the area should be included in the detailed survey. (Ideally, all surveys should include every building within a jurisdiction, but sheer numbers usually make this impracticable.)

Information Required

For the detailed survey, as much information as possible about the history, status, condition, character, and context of every building should be compiled.¹⁸ Realistic factors such as limited time and resources often make a very thorough study impossible; nevertheless, accuracy is important. If the number of criteria is reduced, it is important that the surveyors attempt to research the same features for each building in the survey so that a meaningful comparative evaluation can be made.

The survey should identify each building (by name, location, ownership, occupancy, and use). It should then include a description of its form and construction; information on its physical history (including architect or builder, date, owners, and data on subsequent structural alterations); and data on the historical persons and events associated with the building. Sources should be given for each fact that is recorded, and the name of the surveyor and the date of the survey should be indicated.

A group conducting an architectural survey should prepare its own survey sheet. Proper thought should be given to its lay-out, keeping in mind the method of information retrieval to be used. Facts should be presented in logical order with sufficient room for recorders to insert their data and their sources. Space may be left for the evaluation to be made on the same sheet, or it may be executed on a separate form like the ones illustrated in this booklet.

Previous Surveys

A little investigation will usually reveal that surveys of some sort have previously been conducted in the area. The Canadian Inventory of Historic Building has been active throughout the country. The planning divisions of regional, township, and municipal governments, the cultural departments of provincial governments, local historical and community associations, or architecture departments of local universities may have compiled an inventory similar to the one being proposed. To avoid wasteful duplication, these surveys should be consulted wherever possible.



A recorder with the Canadian Inventory of Historic Building surveys an Ottawa house. (*Canadian Inventory of Historic Building.*)

The Canadian Inventory of Historic Building

The Canadian Inventory of Historic Building, known as CIHB, is a national survey which was inaugurated in 1970 under the direction of the National Historic Sites Service (now the National Historic Parks and Sites Branch) of Environment Canada. Phase 1 of CIHB records features of the exteriors of buildings erected before 1914. All data that is collected is entered into computerized storage for easy and flexible retrieval. Phase 2 records in detail the interiors of a selection of buildings, and in phase 3 the history of these structures is investigated thoroughly.

CIHB is an ongoing project that welcomes contributions of data from organizations across the country. It is national, standardized, and accessible, and therefore groups which conduct their own surveys are urged to work with it. The phase 1 recorder sheet seeks information on exterior form, materials, and details, by means of illustrated multiple-choice¹⁹ questions. Recorder sheets and instruction manuals¹⁹ are available from the Canadian Inventory of Historic Building, Parks Canada, Environment Canada, Ottawa, Ontario K1A 1G2.

Computer printouts listing the buildings recorded in a given area are available from CIHB at cost. However, they may be obtained without charge by individuals or groups undertaking to verify information on already recorded buildings and to suggest additional buildings that should be recorded.

In its first two phases CIHB is essentially a descriptive inventory of the physical nature of buildings. Surveys that are preparatory to evaluations may supplement this descriptive data with historical information about the buildings, their successive occupants, and the persons or events which have been associated with them.

36	MAIN DOOR LOCATION		COMMENTS
37	MAIN DOOR STRUCTURAL OPENING SHAPE		
38	MAIN DOOR SURROUND-HEAD		
39	MAIN DOOR SURROUND-SIDES		
40	MAIN DOOR SURROUND-MATERIAL	WOOD, BRICK, CONCRETE, METAL, STONE, GLASS, OTHER	
41	MAIN DOOR ARCHITRAVE-TYPE		
42	MAIN DOOR ARCHITRAVE-SIDE PANELS		
43	MAIN DOOR ARCHITRAVE-TRANSOM PANELS		
44	MAIN DOOR TYPE		
45	MAIN DOOR PANELS		
46	MAIN DOOR GLAZING	WOOD, METAL, GLASS, OTHER	

CIHB RECORDER SHEET #1
VERSION 2

A page from the Canadian Inventory of Historic Building phase 1 recorder sheet. (Canadian Inventory of Historic Building.)

The Conservation Plan

The survey and evaluation are but means to an end. That end is the conservation of the best of the past for the use of the future. Numerous legislative and planning tools are at our disposal to help us retain a good part of our architectural heritage. These techniques include *controls* such as statutory prohibitions on demolition, zoning and land-use restrictions, design-regulating by-laws, and easements. They also include *incentives* such as tax exemptions, grants or subsidies, and the transfer of development rights.²⁰ The coordinated use of these tools is the conservation plan.

A number of jurisdictions insist that conservation aims be considered in the planning process. Planners must know the value of a city's older buildings in order to design appropriate policies. Elected officials must have this same evaluative information as a basis for their decisions.



The heart of St. John's, Newfoundland, was designated a heritage conservation area in 1977, placing controls on demolitions and alterations. (*NFB Photothèque.*)

The Policy

Kinds of Appropriate Action

The first decision taken by planners and elected officials must be whether or not any conservation action is warranted. While the actual policies must be selected by the local authority, certain guidelines may be suggested here.

Buildings of major significance—those that the evaluation places in group A—should be preserved. Any changes in design should be in the direction of restoration, and should be carried out only after careful research. Changes in use may be encouraged, but only if they do not destroy the historical appearance. In many cases the preservation or restoration of interiors should also be given consideration,

Intrinsic vs. Contextual Value

The basic criteria differ from each other in significant respects. Architecture and history consider the intrinsic value of a building, whereas environment, usability, and integrity are concerned with the effects of time and change and therefore consider a building's contextual value.

It may be useful to record the sum of points for architecture and history as a "basic total," and then to add the points for the other three more transitory criteria (environment, usability and integrity) to reach an "adjusted total." Since the ravages of time are—to a degree!—reversible, in some cases it may help to take the score for alterations and subtract it from the total.^{A12}



Buildings in Dawson have been restored by Parks Canada to their appearance during the gold rush days. (Parks Canada.)

For buildings of importance—group B—conservation is also desirable, but greater freedom is allowed with rehabilitation and adaptation. Redevelopment may be permitted only when proposed new construction would clearly provide a greater amenity than the existing structure. The decision whether to preserve or to replace must involve a complete and careful analysis of the social and economic costs and benefits of each course of action.

Buildings that are of value to the environment—group C—are the borderline cases. In historic districts they add needed texture, and efforts should be made to retain them. If not in historic districts, they will possibly be little missed if lost. However, if too many such buildings are allowed to be destroyed, the city will lose an important and irreplaceable element.

Buildings in group D, those that are of no importance, need not be considered in a conservation plan. They are often best replaced.



Maison Chaboillez in Longueuil, near Montreal, a former rectory and college, has been adapted as a series of ateliers and offices. (Photo by author.)

A look at how a building has scored with respect to the five basic criteria will give some hints as to the best conservation techniques to use. It is helpful to differentiate between the grades or scores it received for architecture and history, which describe its intrinsic value, and those for environment, integrity, and particularly usability, which provide its contextual value.

The degree of control imposed upon a building will depend principally upon its intrinsic value. Buildings that have especially high scores in this respect must be preserved at virtually all costs. The contextual value will suggest how high these costs might be. A building with high contextual value may well be able to support itself as a piece of real estate. Officials may impose controls upon it and expect the private sector to conserve and maintain it with few (if any) incentives. A building with low contextual value, on the other hand, will probably not be self-supporting. There will be strong economic pressures to redevelop the property. In this situation, a programme of controls would have to be accompanied by equally strong incentives and public intervention might have to take the place of private conservation.

The group which evaluates a building should note these factors, and may recommend appropriate action on the evaluation sheet. Space for this has been provided on the samples in this booklet. Room has also been left for approvals and comments by such other people as may normally review the evaluations.

Using the information accumulated in the survey and assessed in the evaluation, planners will recommend a course of action. The elected officials will debate these recommendations and develop a policy for conservation. Each step forms a necessary link in the development of a conservation plan. It is hoped that this manual will help to facilitate one stage: the evaluation of historic buildings.

- 1 William G. Bowen, "Admissions and the Relevance of Race," *Princeton Alumni Weekly*, Vol. 78, No. 2 (26 September 1977), p. 8.
- 2 J.O. Urmson, "On Grading," in A.G.N. Flew, ed., *Logic and Language* (Oxford: Blackwell, 1959), pp. 159-187.
- 3 Canada, Department of Indian Affairs and Northern Development, *National Historic Sites Policy* (Ottawa: Information Canada, 1972), p. 5.
- 4 U.S., Department of the Interior, National Park Service, *How to Complete National Register Inventory Nomination Forms* (Washington: 1972). pp. 3-5; "The Endangered," *Technology & Conservation*, Vol. 3, No. 3 (Fall 1978), pp. 8-12.
- 5 Vancouver, City Planning Department, *Vancouver's Heritage*, Vol. 2 (Vancouver: 1975), pp. 3-4.
- 6 Alberta, *The Alberta Historical Resources Act, 1973*, part 3; Quebec, *Loi sur les biens culturels, 1972*, section 3.
- 7 Lists of criteria from which these have been drawn include those of the Historic Sites and Monuments Board of Canada, which can be found in *National Historic Sites Policy*, p. 5; the National Register of Historic Places, published frequently, as in *Inventory Nomination Forms*, pp. 3-5; Committee on Standards and Surveys, *Criteria for Evaluating Historic Sites and Buildings*, 2nd ed. (Washington: National Trust for Historic Preservation, [1956]); and Ralph W. Miner, *Conservation of Historic and Cultural Resources* (Chicago: American Society of Planning Officials, 1969), pp. 19-20. AU four sets have been collected in Harold Kalman, "An Evaluation System for Architectural Surveys," *Bulletin of the Association for Preservation Technology*, Vol. 8, No. 3 (1976), pp. 17-22. For a historical survey of criteria used over the years, see Charles B. Hosmer, Jr., *Presence of the Past* (New York: G.P. Putnam's Sons, 1965), chapter 11.
- 8 Sinclair Gaudie, *Architecture* (London: Oxford University Press, 1969) attempts to analyze the sources of excellence in compositional design. For an attempt by Adrian van Buttlar and his colleagues to place quantifiable values on the appearance of buildings, see "How Many Bits?" *Architectural Review*, No. 153 (April 1973), pp. 251-252. This system places a premium on complexity; so too does the method being developed by Amos Rapoport and cited in "An Approach to the Study of Environmental Quality," in Henry Sanoff and Sidney Cohn, eds., *EDRA 1: Proceedings of the 1st Annual Environmental Design Research Association Conference* (Stroudsburg, Pa.: Dowden, Hutchinson & Ross, 1970), p. 8.
- 9 Hazen Sise, "Evaluation Scoring Procedures for Heritage Buildings and Sites," unpublished typescript (Ottawa: National Capital Commission, 1967), p. 4.
- 10 John S. Pyke, Jr., *Landmark Preservation* (New York: Citizens Union Research Foundation, n.d.), pp. 1-2.

Endnotes

- 11 Some of the categories for the detailed criterion "condition" have been taken from the Council of Europe's uniform system of inventorying historic buildings, described in Gabriel Alomar et al., *Protective Inventory of the European Cultural Heritage (I.E. C. H.) Based on the Palma Recommendation* (Strasbourg [?]: Council of Europe, ca. 1969), pp. 21-22.
- 12 William Murtagh proposed a set of criteria for the recognition of historic districts at the Rome Centre's North American International Regional Conference in 1972, and published in *Preservation and Conservation: Principles and Practices* (Washington: Preservation Press, 1976), pp. 388-389; a revised version appeared in Munagh, "Aesthetic and Social Dimensions of Historic Districts," in *Historic Districts: Identification, Social Aspects and Preservation* (Washington: National Trust for Historic Preservation, 1975), pp. 9-11.
- 13 Some criteria for sites and non-architectural structures are offered by the National Register of Historic Places (see note 7). A succinct definition of cultural resources is given in Russell Wright, *Techniques for Incorporating Historic Preservation Objectives into the Highway Planning Process* (Reston, Va.: 1972). Two studies of landscape evaluation are cited in note A8.
- 14 A pioneering use of numerical grades developed in Providence, Rhode Island (1957-59) is described in Providence City Plan Commission, *College Hill: A Demonstration Study of Historic Area Renewal*, 2nd ed. (Providence: 1967), pp. 72-77. For later numerical systems used in various Canadian cities and provinces, see Six, "Evaluation Scoring Procedures" (Ottawa-Hull); Kalman, "An Evaluation System" (Vancouver); D. Bodnar, "Proposal for a Methodology of Evaluation of Potential Historic Sites in Alberta," unpublished typescript (Edmonton: Alberta Culture, 1976); Jennifer Phillips-Cleland et al., *An Evaluation and Protective System for Heritage Resources in Halifax* (Halifax: City of Halifax, 1977). A selection of scoring systems is described in Ann Falkner, *Without Our Past?* (Toronto: University of Toronto Press, 1977), pp. 71-78. Lists of published surveys, some of which describe scoring systems, may be found in Frederick L. Rath, Jr., and Marilyn Rogers O'Connell, eds., *Historic Preservation, A Bibliography on Historical Organization Practices*, Vol. 1 (Nashville: American Association for State and Local History, 1975), pp. 73-82; and National Trust for Historic Preservation, *Historic Preservation Plans: An Annotated Bibliography* (Washington: Preservation Press, 1976).
- 15 Similar descriptions were introduced in Bureau of Governmental Research, *Plan and Program for the Preservation of the Vieux Carré*, Technical Supplement: Environmental Survey (New Orleans: 1968), p. 47, although in that survey national and local significance were differentiated. Whereas these descriptions were used to refer to buildings within a historic district, they may be applied as well to isolated structures. The Department of Public Works also uses four groups in the evaluation of its heritage buildings: the groups are called *important, preserve, maintain, and insignificant*. See Canada, Department of Public Works, "Department of Public Works Heritage Policy," *Nouvelles/News: Society for the Study of Architecture in Canada*, Vol. 4, No. 2 (January 1978), p. 8.
- 16 These figures are derived from the distribution of scores in the surveys of the historic areas of College Hill (see note 14) and the Vieux Carré (see note 15). Our group A buildings are not as extraordinary as Britain's Grade 1 buildings which make up only one per cent of all listed structures. A valid argument against the division into classifications is given in Falkner, *Without Our Past?*, p. 80.
- 17 Phase 1 of the Canadian Inventory of Historic Building (CIHB) is an inventory of this kind; so too is the Historic American Buildings Survey Inventory (HABS). The latter is described in Harley J. McKee, *Recording Historic Buildings* (Washington: U.S. Department of the Interior, 1970), pp. 119-121. The *Inventaire des biens culturels* in Quebec calls this the *pré-inventaire*; see Yves Laframboise et al., *Neuville: architecture traditionnelle* (Quebec: Ministère des Affaires culturelles, 1976), p. 13.
- 18 For the methods of carrying out surveys, see James C. Massey, *The Architectural Survey* (Washington: National Trust for Historic Preservation, ca. 1968); McKee, *Recording Historic Buildings*; and especially Anne Derry et al., *Guidelines for Local Surveys: A Basis for Preservation Planning* (Washington: U.S. Department of the Interior, 1977). The latter discusses evaluations briefly on pp. 40-41. A uniform European system of inventorying (IECH) is described in Alomar et al., *Protective Inventory*. A method of recording vernacular architecture is explained in R.W. Brunskill, *An Illustrated Handbook of Vernacular Architecture* (London: Faber & Faber, 1971). See also Charles Lawrence, "Towards an Inventory of Historical Structures," unpublished dissertation, Institute of Advanced Architectural Studies, University of York, 1977.
- 19 Meredith Sykes and Ann Falkner, *Canadian Inventory of Historic Building: Training Manual*, 2nd ed. (Ottawa: Department of Indian Affairs and Northern Development, ca. 1971). See also *Phase 2 Manual: Canadian Inventory of Historic Building*. (Ottawa: Department of Indian Affairs and Northern Development, 1975).
- 20 A summary of Canadian legislative tools is given in Marc Denhez, *Heritage Fights Back* (Ottawa: Heritage Canada, and Toronto: Fitzhenry & Whiteside, 1978).

- A1 See R.C. Viohl, Jr., and K.G.M. Mason, *Environmental Impact Assessment Methodologies: An Annotated Bibliography*, *Council of Planning Librarians, Exchange Bibliography No. 691* (Monticello, Ill. : 1974).
- A2 Russell Wright, *Techniques for Incorporating Historic Preservation Objectives into the Highway Planning Process* (Reston, Va. : 1972).
- A3 Stephen W. Jacobs and Barclay G. Jones, *City Design Through Conservation: Methods for the Evaluation and Utilization of Aesthetic and Cultural Resources, 2 vols.* (Berkeley: University of California, 1960).
- A4 *The recent bibliography in this field is immense. Three good older introductions are Henry Sanoff and Sidney Cohn, eds., EDRA 1: Proceedings of the 1st Annual Environmental Design Research Association Conference (Stroudsburg, Pa.: Dowden, Hutchinson & Ross, 1970); Daniel H. Carson, ed., Man-Environment Interactions: Evaluations and Applications (Stroudsburg: Dowden, Hutchinson & Ross, 1974), unit 5: "Methods and Measurer"; and, J. T. Coppock and C. B. Wilson, eds., Environmental Quality (Edinburgh: Scottish Academic Press, 1974). See also Louis J. D'Amore and Sheila Rittenberg, "Social Impact Assessment: A State of the Art Review," Urban Forum, Vol. 3, No. 6 (March-April 1978), pp. 8-31, passim.*
- A5 *A number of architects have taken matrix systems developed for environmental impact assessment and adapted them for design evaluation: see, for example, Willis and Associates, "Getting at the Issues," Progressive Architecture, Vol. 55, No. 6 (June 1974), pp. 82-87; and Kaiman Lee and John Moberg, Environmental Design Evaluation: A Matrix Method (Boston: Environmental Design & Research Centre, 1975).*
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- A7 *See the literature on townscape analysis, especially Gordon Cullen, Townscape (London. Architectural Press, 1961) and, with an American perspective, Kevin Lynch, The Image of the City (Cambridge, Mass.. M. I. T. Press, 1960).*
- A8 *Ervin H. Zube, Robert O. Brush, and Julius Gy. Fabos, eds., Landscape Assessment: Values, Perceptions, and Resources (Stroudsburg: Dowden, Hutchinson & Ross, 1975); D. G. Robinson et al., eds., Landscape Evaluation: The Landscape Evaluation Research Project 1970-75 (Manchester: University of Manchester, 1976), reviewed in depth by Peter Youngman in Landscape Design, No. 118 (May 1977), pp. 30-31.*
- A9 *For a definition of the term, see R. W. Brunskill, An Illustrated Handbook of Vernacular Architecture (London: Faber & Faber, 1971), pp. 25-28.*
- A10 *The competition results were published in Documents Relating to the Construction of the Parliamentary and Departmental Buildings at Ottawa (Quebec: 1862) pp. 12-17. They have been described most recently in J. D. Livermore, "A History of Parliamentary Accommodation in Canada, 1841-1974," in The Hon. D. C. Abbott et al., Report of the Advisory Commission on Parliamentary Accommodation (Ottawa: Minister of Supply and Services Canada, 1976), pp 71-73.*
- A11 *Vancouver has introduced such a system using a 15-digit co-ordinate reference number. See Vancouver, City Engineering Department, An Information Retrieval System for Urban Areas: Technical Report, 2nd ed. (Vancouver: 1967).*
- A12 *Scores for alterations were subtracted in a survey carried out in Vancouver; see Harold Kalman, "An Evaluation System for Architectural Surveys," Bulletin of the Association for Preservation Technology, Vol. 8, No. 3 (1976), p. 7.*

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