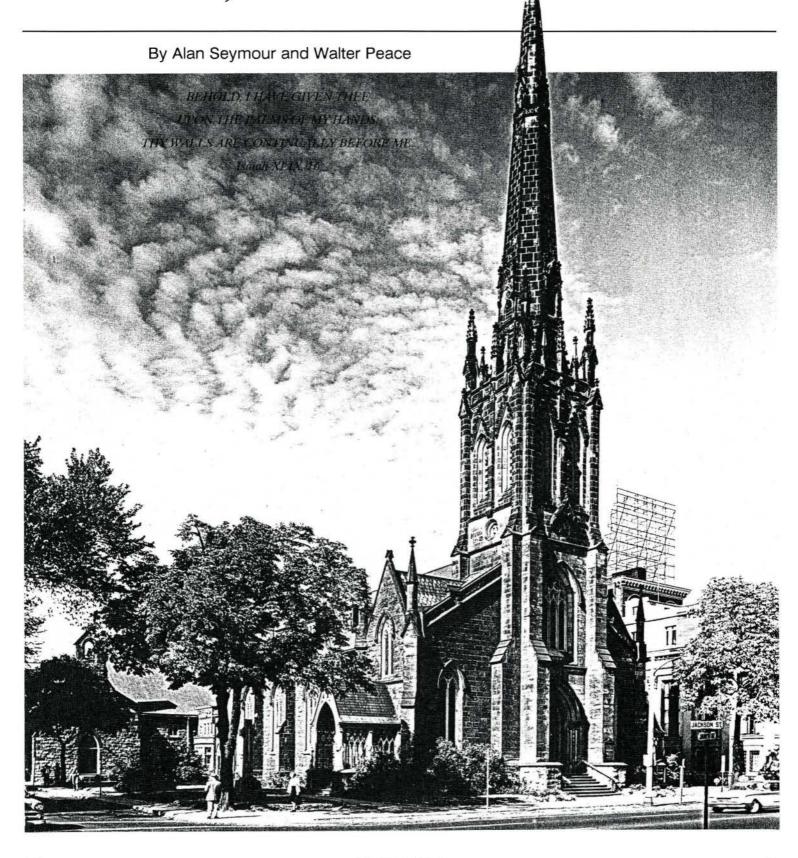
# St. Paul's Presbyterian Hamilton, Ontario

Church,



The two great rules for design are these: (first) that there should be no features about a building which are not necessary for convenience, construction, or propriety; (second) that all ornament should consist of enrichment of the essential construction of the building.

A.W. Pugin1

- 1 A. Welby Pugin, The True Principles of Pointed or Christian Architecture: Set forth in two lectures delivered at St. Marie's, Oscott (London: Henry G. Bohn, 1853), 1.
- 2 S.W. Vance, St. Andrew's St. Paul's, 1857-1957 (n.p., 1957), 3.
- 3 Marion MacRae and Anthony Adamson, Hallowed Walls: Church Architecture of Upper Canada (Toronto: Clark, Irwin, 1975), 151.
- 4 John Goss, "The Built Environment and Social Theory: Towards an Architectural Geography," Professional Geographer 40 (1988): 394.
- 5 Building News 4 (1858): 617.
- 6 Alan Seymour, "A Flawed Masterpiece, Or the Price of Pressure," Society for the Study of Architecture in Canada Bulletin 16 (June 1991): 33.
- 7 John C. Weaver, Hamilton: An Illustrated History (Toronto: J. Lorimer and National Museum of Man, 1982), 77.
- 8 W.H. Smith, Canada: Past, Present and Future: Being a historical, geographical, geological and statistical account of Canada West (Toronto: T. Maclear, 1852).
- 9 Weaver, 77.
- 10 Walter G. Peace, "Landscapes of Victorian Hamilton: The Use of Visual Materials in Recreations and Interpreting the Past," *Urban History Review* 18 (1989): 1.
- 11 R. Louis Gentilcore, "The Beginnings: Hamilton in the Nineteenth Century," in M.J. Dear, J.J. Drake, and L.G. Reeds, eds., Steel City: Hamilton and Region (Toronto: University of Toronto Press, 1987), 111.

n 20 September 1853, Robert Reid Smiley, founder and editor of the *Hamilton Spectator*, challenged the congregation of St. Andrew's Presbyterian Church (now known as St. Paul's) with the following words:

And, we would respectfully ask, how long do [the Presbyterians] intend, in respect to ecclesiastical architecture, to lag behind their neighbours, and to suffer not only Roman Catholics and Episcopalians, but even Methodists to outstrip them in the laudable ambition of dedicating a handsome edifice to the Worship of Almighty God, and of adding another architectural ornament to the city in which they dwell.

Smiley, a member of St. Andrew's, wrote these words under the pen name "Alacris." For some time he had been "prodding the church authorities to erect a place of worship worthy of their standing in the community." Just under a year later, on 14 September 1854, Smiley and the rest of the St. Andrew's congregation witnessed the cornerstone-laying ceremony marking the official beginning of what was later to be regarded as the "best Decorated Gothic Revival church in Ontario." Smiley, however, did not live to see the completion of the edifice for which he had long campaigned, having passed away on 19 May 1855. Less than two years after his death, St. Andrew's new edifice was formally opened (figure 1).

Over the intervening years both the congregation and the structure of St. Andrew's would be confronted with a variety of hardships brought on by, among other things, internal dissension, an earthquake, and the ravages of industrial pollution. Despite these obstacles and other difficulties associated with the general decline in membership of central city churches, St. Paul's has retained its physical and symbolic prominence in downtown Hamilton, largely as a result of the congregation's foresight and determination. In 1988 the congregation was faced with a costly restoration project, necessitated, in part, by the damaging effects of acid rain. On 21 May 1988, nearly 135 years after Robert Smiley's appeal, another editorial appeared in the *Hamilton Spectator*. In asking the citizens of Hamilton to support the restoration project, the editors wrote: "St. Paul's Presbyterian Church on James Street South is one of Canada's historical and architectural treasures." In the wake of the project's success, Robert Smiley would no doubt have been pleased.

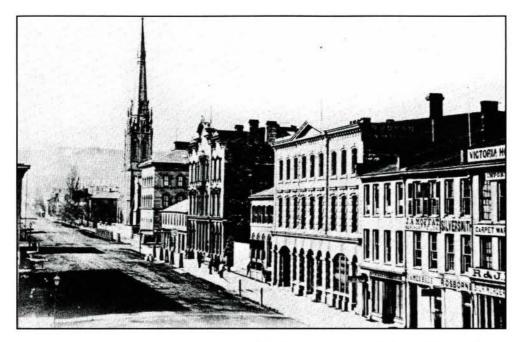
Buildings which comprise the urban landscape have varied stories to tell us. John Goss contends that architecture should be viewed "as a social product, as the spatial configuration of the built environment incorporating economic, political and ideological dimensions." In both physical and symbolic terms, buildings inform us about people, places, and processes at different times in our history. Indeed, as noted in an 1858 issue of *Building News*, "It is the duty of our architecture to translate our character into stone." The purpose of this paper is to present the story of St. Paul's in order that we might better appreciate the ways our knowledge of architectural history and heritage conservation inform us about our past, present, and future character.

This paper consists of three parts. First, a brief description of the city of Hamilton in the 1850s establishes a backdrop against which the story of St. Paul's unfolds. Second, the construction of the building and its subsequent alterations are discussed. Finally, details of the recently-completed three-year restoration of the church are described, shedding new light on its construction: the elegant and much-admired stone spire of St. Paul's reveals, upon closer inspection, the character of "a flawed masterpiece."

# HAMILTON, CANADA WEST

As the second half of the nineteenth century began, the city of Hamilton, Canada West, entered "a transitional phase between the frontier boom town and the truly industrial city." In 1850 the city's population stood at 10,248,8 and by 1857 it had more than doubled to about 25,000.9 At the root of this population surge in Hamilton (and several other centres) was the expansion of the province's railways. Under the leadership of Sir Allan MacNab, the Great Western Railway located its operations in Hamilton in 1853. The railway was instrumental in Hamilton's rise as one of the premier industrial cities in Canada. It also accentuated Hamilton's importance as a transportation centre: "The railway brought new activity to the young port, the Great Western grain elevators emerging as the most imposing symbol of Hamilton's place in the grain trade."

The impact of a booming economy was manifested on the built environment of Hamilton in a variety of ways. During the 1850s the city witnessed the construction of an impressive array of buildings. The religious landscape was enhanced by the construction of the Church of the Ascension (1851), MacNab Street Presbyterian Church (1856), and St. Andrew's Presbyterian Church (1857). In addition, several important public buildings heralded the changing social and economic conditions. Central Public School was the largest graded school in the province when it opened in 1853. The Pump House was completed in



1859 to supply the city with fresh water from Lake Ontario after the cholera epidemic of 1854. Finally, the Crystal Palace and Customs House, both completed in 1860, symbolized the growth of Hamilton as a regional centre. (George Worthington of Hamilton was the master stone mason responsible for construction of St. Andrew's, the Pump House, and the Customs House.)

Most immigrants arriving in Canada in the decades prior to Confederation were of British origin: more than 600,000 immigrants originated in the United Kingdom between 1825 and 1846. While virtually all aspects of life in the colony were subjected to British influences, these formative years witnessed the emergence of a distinctive colonial identity. In 1851, the first Canadian postage stamp (the famous three-penny beaver) was issued. Seven years later, circulation of the country's first decimal coinage began. Among the more visible manifestations of this newly-emerging identity was the Protestant culture of the province, complete with its revival of the Gothic and Romanesque styles of architecture.

The new medieval-inspired church which occupied a prominent place in almost every village and town became the most powerful and enduring symbol of the Protestant culture of Ontario. <sup>13</sup> Indeed, as William Westfall contends, "The revival of ancient forms became the avant garde of Victorian art; the old was made new." <sup>14</sup> Most important of all was the symbolism of these monuments: "Like a sermon in stone, the Gothic church preached in a language of moral symbols to the society surrounding it." <sup>15</sup> Churches were frequently the dominant physical structures in the landscapes of towns and cities in 19th-century Ontario by virtue of their size, location, and style of architecture (**figure 2**). Among these, St. Paul's was "the pinnacle of nostalgia, achieved by an architect from the stone-spired heart of England." <sup>16</sup>

### WILLIAM THOMAS AND THE GOTHIC REVIVED

Nineteenth-century Protestant Ontario was characterized by, among other things, the dominance of a new style of architecture which reflected both a shift in taste and the rising prominence of religion in every day life. <sup>17</sup> Church architecture in Ontario at this time was heavily influenced by the Gothic Revival in England as championed by, among others, Augustus Welby Pugin. The appearance of this revival coincided with a critical period in the development of the architectural profession in Ontario.

As the populations of cities and towns grew, so did the demand for architects with new skills. <sup>18</sup> One of the most prominent architects to arrive in Upper Canada at this time was William Thomas (**figure 3**), considered by some to be "the leading exponent of the Decorated Style in Canada West." <sup>19</sup> Born in Suffolk, England, in 1799, he practised architecture in Birmingham and Leamington Spa before embarking for Canada with his wife and ten children in 1843. He quickly established a successful practice in Toronto and soon received important commissions to design buildings in other communities, including Hamilton, Guelph, London, Niagara-on-the-Lake, and Chatham. <sup>20</sup> Among Thomas' renowned works

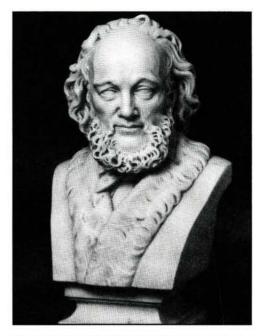


Figure 1 (page 43). St. Paul's (originally St. Andrew's) Presbyterian Church, Hamilton, as it appeared in 1962. (Tom Bochsler, photographer, Hamilton Public Library, Special Collections)

Figure 2 (left). St. Paul's (St. Andrew's) in its original context on James Street, Hamilton, 1860. (Hamilton Public Library, Special Collections)

Figure 3 (above). Portrait bust of William Thomas, architect of St. Paul's Church, by John Thomas, c. 1857. (Glenn McArthur)

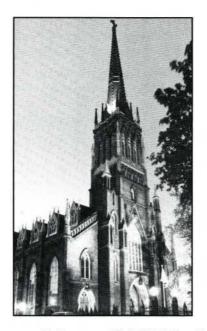
- 12 R. Cole Harris and John Warkentin, Canada Before Confederation (Toronto: Oxford University Press, 1974), 117.
- 13 William Westfall, Two Worlds: The Protestant Culture of Nineteenth-Century Ontario (Montreal and Kingston: McGill-Queen's University Press, 1989), 127.
- 14 Ibid., 136.
- 15 Ibid., 151.
- 16 MacRae and Adamson, 146.
- 17 Westfall, 127.
- 18 Ibid.
- 19 MacRae and Adamson, 146.
- 20 E. Price, "William Thomas," in T.M. Bailey, ed., Dictionary of Hamilton Biography (Hamilton, Ont: Dictionary of Hamilton Biography, 1981), 1:195.

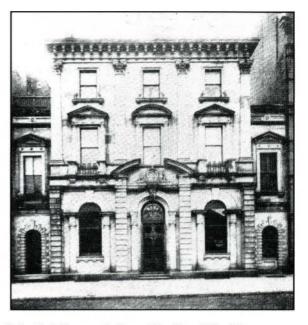


Figure 4 (above). St. Lawrence Hall, Toronto, designed by William Thomas and built in 1850-51 (restored in 1967). (Glenn McArthur)

Figure 5 (right). St. Michael's Roman Catholic Cathedral, designed by William Thomas (tower and spire additions by Gundry & Langley, 1867), was the largest church in Toronto when completed in 1848. (Glenn McArthur)

Figure 6 (far right). Bank of British North America, designed by William Thomas in 1846. (Hamilton, Canada: Its History, Commerce, Industries, Resources (Hamilton, Ont.: Herbert Lister, 1913), 213)





were St. Lawrence Hall, St. Michael's Cathedral (figures 4, 5), and the Don Jail, all in Toronto, and the Sir Isaac Brock monument at Queenston Heights.

By 1851, Thomas had opened a second office in Hamilton, appointing his son William Tutin Thomas as supervisor of the Hamilton works. It was claimed that Thomas was responsible for the "greater number of the very beautiful private residences that meet the eye in every direction." These included Undermount on John Street (1847, demolished), the Presbyterian manse at Herkimer and Park streets (1854), Wilderness House (1848), and his most successful work, Inglewood (1852). His commercial works included the Bank of British North America on King Street East (1846, demolished; figure 6) and four stores for Best and Green on James Street South (1854, demolished).

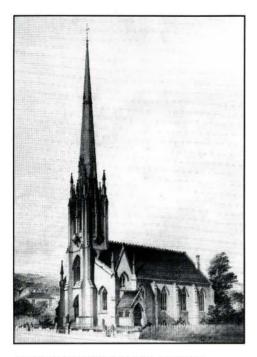
Thomas, who with thirty churches to his credit was one of the major church builders of the pre-Confederation period, contributed to Hamilton's spiritual needs adding two bays and a chancel to Christ's Church (1852) and, of course, building St. Andrew's (St. Paul's). Thomas was clearly a major form-giver to Hamilton's streetscapes.

The congregation of St. Andrew's Presbyterian Church, responding to the appeals of Robert Smiley, announced its intention to build a new structure at the corner of James Street South and Jackson Street to replace the original wooden building. Thomas was chosen to design the church, possibly because of his earlier work on Undermount for John Young, a wealthy merchant who was an elder, trustee, and founder of St. Andrew's. Soon began the construction of one of the city's finest buildings and Thomas' most successful composition (figure 7).<sup>22</sup>

The design of St. Paul's was quite possibly inspired by Pugin's St. Giles' Church, built in Cheadle, Staffordshire, between 1840 and 1846 (figure 8). Indeed, there are several curious connections between Pugin and Thomas. Both St. Paul's and St. Giles' churches are, by and large, regarded as the finest works by their respective architects. Thomas' brother John was a sculptor and designer of stained glass with the Barry/Pugin team working on the Parliament Buildings at Westminster. Another of Pugin's churches, St. Chad's, Birmingham, was built between 1839 and 1841; Thomas, who had practised in Birmingham until 1832, subsequently moved to nearby Leamington, so he was no doubt familiar with this work by Pugin. Even more curious are the physical similarities between St. Giles' and St. Paul's. St. Giles' is designed such that "the tower and spire are overwhelming in relation to the nave," while St. Paul's "only fault is, that from the richness of the tower and spire, the body of the building looks plain in contrast."

One further link between Thomas and Pugin was forged at the cornerstone laying ceremony for St. Paul's. The ceremony, which took place on 14 September 1854, <sup>26</sup> was exactly two years to the day after Pugin had passed away. Surely this was more than a coincidence. Perhaps further investigation will someday confirm this presumed connection between Thomas and Pugin. In any event, William Thomas "reshaped the skyline of Canadian cities from Halifax to London with a series of churches and public buildings. ...His contributions to the development of architecture as well as the scope and quality of his work substantiate [the claim] that [he] was 'one of the founders of the Canadian architectural profession.' "<sup>27</sup>"

- 21 Halifax Reporter, 1860.
- 22 Neil Einarson, "William Thomas," in F.G. Halpenny, ed., Dictionary of Canadian Biography (Toronto: University of Toronto Press, 1987), 8:874.
- 23 Nina Chapple, St. Paul's Church (Presbyterian), Hamilton, Ontario: An Architectural and Historical Report (Hamilton, Ont.: Local Architectural Conservation Advisory Committee, Hamilton Historical Board, 1980).
- 24 Phoebe Stanton, Pugin (London: Thames and Hudson, 1971), 106.
- 25 MacRae and Adamson, 151.
- 26 Vance, 3.
- 27 Einarson, 877.



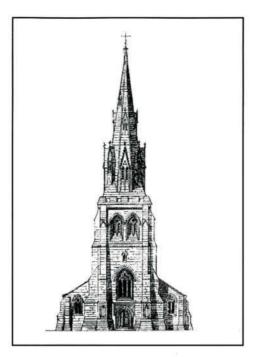


Figure 7 (left). Lithograph of William Thomas' original design for St. Andrew's (now St. Paul's) Presbyterian Church, Hamilton. (Maclure & Macdonald, Lithographers, Glasgow, 1855/Canadian Historical Reproductions)

Figure 8 (right). St. Giles' Church, Cheadle, Staffordshire, designed by Augustus Welby Pugin and built 1840-46. (Phoebe Stanton, Pugin (London: Thames and Hudson, 1971), 126)

## CONSTRUCTION OF ST. PAUL'S

After the call for tenders, announced on 26 May 1854, construction of St. Paul's proceeded rapidly. The cornerstone was laid in September of that year. Stone mason George Worthington was allowed but four months to erect the structure "up to the height requisite for the carpenters to fix the roof," and one year from then to "have the whole of the said works to the top of the spire completed." This ambitious schedule was expedited through the imposition of penalties of £50 for each week that work went over schedule. One of the most remarkable aspects of the construction was the fact that the spire (the only one made of stone in Ontario) took a mere six weeks to build. Nina Chapple notes that the 94-foot spire was completed when, "even in Toronto, the major cathedrals were without their spires until the 1870s." Interestingly, Pugin asserted that "Every tower built during the pure style of pointed architecture either was, or was intended to be, surmounted by a spire, which was the natural covering for a tower...." The hectic pace of construction undoubtedly contributed to "numerous examples of poor masonry and errors in dimensioning and carving." Despite these flaws, A.G. McKay considers St. Paul's soaring spire to be "the finest in Canada and Hamilton's focal point."

The church was formally opened on 8 March 1857. For more than seven decades the top of the spire, which rose 180 feet above street level, would exceed the height of all other buildings in Hamilton. Stone used in the construction was taken from local quarries with the exception of that used for the spire, which was imported from Ohio. The total value of the contracts was £11,000, an enormous expense which put the congregation in a precarious financial position for several years thereafter. The 1870s proved to be difficult times for the congregation as a consequence of dissent over the growing debt. In 1873 the edifice was rededicated to St. Paul after some members of the congregation decided to follow the ousted Reverend R. Burnett to a new church. In 1877 the church was sold to the Park Street Baptist congregation in order to pay debts of the estate of John Young, who had given large sums of money to St. Paul's during its financial crisis. Fortunately for the Presbyterians, "sanity returned, and the Baptist congregation graciously withdrew when St. Paul's at last indicated its willingness to settle the account as required." "

Over the intervening years there have been relatively few alterations to St. Paul's. MacRae and Adamson suggest that the financial woes of the church may, in fact, have been a blessing: "They were thereafter too poor to alter the building. ...The very worst enemies of elderly architecture are affluence and fire, and it is sometimes difficult to decide which of the two does the greater damage." 35

In 1884 the Lecture Room and Sunday School were constructed. In 1906 the original bell from the wood-framed building (said to be the first bell to ring in Hamilton) was mounted in a belfry added to the Lecture Room. In 1905 eleven bells were placed in the church tower at a cost of \$6,000. The only other significant alteration to Thomas' original design was the addition of the new choir loft, vestry, choir rooms, and church office. These alterations were undertaken by Montreal architect Hugh Vallance in 1910. Thankfully, each of

28 Chapple, 3.

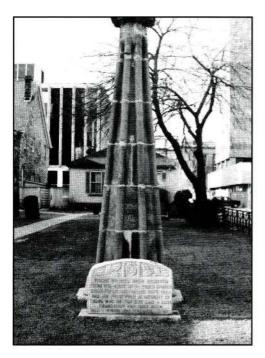
29 Ibid.

30 Seymour, 33.

31 Pugin, 9.

32 Seymour, 33.

- 33 Alexander G. McKay, Victorian Architecture in Hamilton (Hamilton, Ont.: Hamilton-Niagara Branch, Architectural Conservancy of Ontario, 1967), 14.
- 34 I.G. Fischer, A History of St. Paul's Presbyterian Church, Hamilton: Prepared for the one hundred and fiftieth anniversary of its founding (Hamilton, Ont.: n.p., 1983), 32.
- 35 MacRae and Adamson, 153.



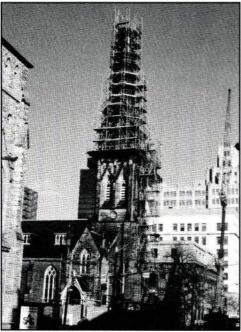


Figure 9 (top). The original sandstone courses which were removed from the spire in 1944 and rebuilt in the churchyard as a monument. (Walter Peace)

Figure 10 (bottom). The spire of St. Paul's, Hamilton, encased in scaffolding. (Walter Peace)

36 B. Henley, "Scaffolding again covers church spire," Hamilton Spectator, 16 December 1987. these alterations was, by and large, sympathetic to Thomas' original design.

The forces of nature caused considerable anguish for the congregation when, on 5 September 1944, a piece of the stone spire beneath the weather vane fell to the front steps as a result of an earthquake. A few weeks later, movement of the spire was observed during a high wind storm. Scaffolding was erected and the top six courses of the spire's sandstone were removed. These courses were rebuilt in the churchyard as a monument (figure 9). The top of the spire was then rebuilt using limestone.

In 1969, St. Paul's was designated an historic site by the Archaeological and Historic Sites Board of Ontario. In 1975, it was featured on a Canadian postage stamp issued to commemorate the 150th anniversary of the Presbyterian Church in Canada. In 1994, St. Paul's will be recognized as a national monument by the Historic Sites and Monuments Board of Canada.

### THE RESTORATION OF ST. PAUL'S

By 1987, the stonework of St. Paul's had deteriorated to such an extent that conservation consultant Martin Weaver was retained to inspect and report on the fabric. The initial inspection revealed a spectacular deterioration caused primarily by air pollution. Many of the masonry joints were wide open to water penetration from acidic rain, snow, and fogs or aerosols. At the top of the spire, daylight was visible between some blocks of stone. There was a grave risk that large pieces of masonry could fall from very considerable heights, thereby posing a danger to pedestrians or persons inside the church. In the event of even a moderate earth tremor there was the possibility that the entire spire would collapse.

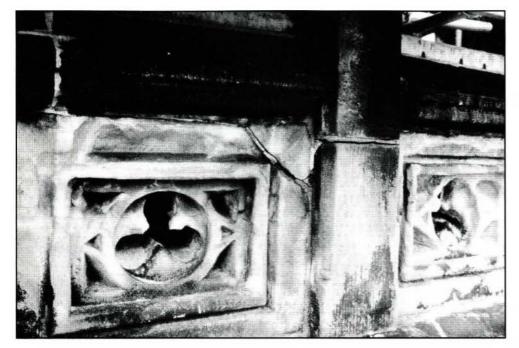
Excessive pollution from Hamilton's iron and steel works and more distant sources resulted in the addition of large quantities of sulphates, which were destroying the masonry in the form of massive deposits of efflorescent and subflorescent salts. Some of the sandstone blocks in the spire had lost more than a third of their thickness, and possibly more of their bearing surfaces. The slate roofs, flashings, rainwater disposal systems, and stained glass windows were also in serious need of repair.

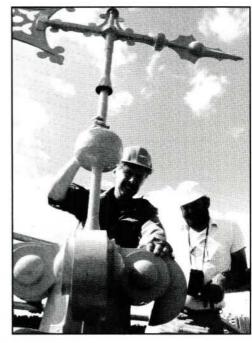
The choice of limestone in 1944 as a replacement for the original sandstone masonry was an error which 19th century masons would have avoided: acidic rainwater running across the limestone removes carbonates and redeposits them in the sandstone below. These carbonates, now in the surface pores of the sandstone, react with pollutant oxides to form dangerous concentrations of water-soluble salts. The conservation consultant recommended the immediate erection of a special scaffold with hoardings and safety nets to encase the masonry materials and make possible a thorough scientific and technical examination.

Architect Alan Seymour was retained in November 1987 to carry out the conservation program. By December the scaffold had been designed and erected (figure 10), and on 22 December the first thorough inspection of the outside of the spire took place. The findings of the initial inspection were confirmed in dramatic fashion. Some decorative stone finials were completely loose and were removed by hand without effort. Bedding mortar was completely missing from some joints, or had deteriorated to a moist powder. Nearly all the pinnacles (the tallest is 20 feet high) and finials were loose and could easily be moved by hand. Some had split because of the expansion of corroding iron dowels. Several were kept in place simply by their own weight, without proper restraint by dowels or cementing mortar.

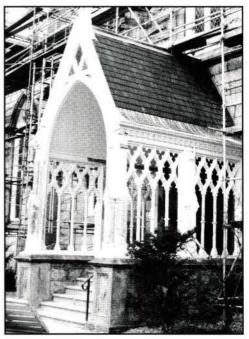
The design team was faced with the task of evaluating the complex problems of the church's unique tower and spire without long-term data on the structural behaviour of the tower and knowing that the spire appeared to be held aloft by gravity and God's grace. A major concern was the effect of stresses on the spire caused by earthquake and wind, and the possibility of a strong wind occurring during seismic activity. Structural analysis showed that if a good mortar bond could be reestablished and maintained there was no cause for alarm, but in the corrosive atmosphere of Hamilton it seemed likely that, at some point in the future, the joints would fail again. For this reason, it was decided to ensure the continued integrity of the masonry by installing a stainless steel mast in the upper part of the spire and linking this to a skeleton of stainless steel strapping anchored to alternate courses of the masonry below.

A carefully phased plan was developed over the following months, and the \$1.7 million restoration programme commenced in November 1988. During phase I, the weather vane, the top 25 feet of masonry, and all the freestanding decorative elements were numbered and removed. In total, some 350 pieces of stone were brought to ground level and stored in a workshop built on site. In some cases the pieces were beyond repair (figure 11), and new elements were carved from Ohio sandstone. During phase II, which commenced in June 1989, a new scaffold was erected around the tower and spire. The restored weather vane (figure 12), the original sandstone top of the spire (which had been removed in 1944), and the masonry which had been removed from the spire in phase I were rebuilt around the









stainless steel mast, which was connected at its base to the strapping already installed. All decorative stone elements were then remounted with stainless steel pins, cramps, and dowels (figure 13). The spire, tower, nave, and sanctuary were cleaned and repointed. Selected stained glass windows were removed and the frames were stripped and repainted. The windows were cleaned, and the lead cames repaired or replaced. New louvres and bird screens were installed in the belfry and spire. The two wooden porches were also repaired and restored (figure 14). Phase III commenced in October 1989 and addressed the slate roofs, flashings, and rainwater systems. Finally, in 1991, a maintenance manual was prepared, listing maintenance procedures, the equipment required, and frequencies of inspection, all supported with as-built drawings and specifications.

Figure 11 (top left). The parapet stones were beyond repair, so new units were carved. (Alan Seymour)

WHEN ST. PAUL'S WAS BUILT, THE POPULATION of Hamilton was about 25,000. It was as though a critical mass of energy, skill, and civic pride had occurred, producing an explosion of mature, confident architecture. If, as quoted at the beginning of this article, "it is the duty of our architecture to translate our character into stone," then our duty was to preserve one of the finest products of that character. Time will tell if we have succeeded.

Figure 12 (top right). Restoration architect Alan Seymour and conservation consultant Martin Weaver installing the restored weather vane. (Alan Seymour)

Figure 13 (bottom left). The parapet and pinnacles after restoration. Note the rods bracing the corner pinnacles. (Walter Peace)

Figure 14 (bottom right). Restoration of one of the porches, in progress. (Alan Seymour)