Journal Article

Early Development of the "Artistic" Concrete Block: The Case of the Boyd Brothers

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## THE BOYD BROTHERS COMPANY

The Boyd Brothers Company, located in Osgoode, Ontario, about twenty miles south of Ottawa, was founded in 1907 by Harry and William Boyd. They went into the "Block Business" after purchasing an Ideal Machine, originally intended to make concrete blocks for a house, which their father, a masonry contractor, had undertaken to build. 39 By 1909, when they built their first permanent plant, the demand for their blocks had increased to the point where they were able to put three block machines into service. 40 By 1913 the company was producing 800 blocks a day and employed about twenty men, including masons. 41 Concrete block continued to be manufactured until the mid-1960s when it no longer proved profitable, and the company turned to such specialized products as precast concrete septic tanks and silos.

The Boyd Brothers established a reputation for the <code>artistic</code> block which they manufactured for over fifty years and for their concrete block buildings, many of which admirably demonstrate its architectural possibilities. Their principal contribution to the development of the <code>artistic</code> concrete block in Canada was an <code>exposed aggregate</code> type of block which they introduced in 1914. The company's granite block came to be so well known throughout the Ottawa Valley that it is still referred to locally as "Boyd Block" (Fig. 7).42 Although their

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imitation stone blocks manufactured before 1914 were not unique, in that they were moulded on face plates supplied by the Ideal Concrete Machinery Company, they were quite innovative in terms of surface finish.

## The Imitation Stone Blocks, 1907-1914

The Boyd Brothers' first concrete block machine was purchased from the Canadian branch of the Ideal Concrete Machinery Company, established in London, Ontario in 1906. They were apparently one of the branch company's first customers. 43 The Ideal Machine which they ordered was furnished with only one face plate in the rock-face design, 44 which they used to make the blocks for their first few houses, built in 1907 and 1908 (Fig. 7). A panel-face block, similar to the one shown in the "Wizard" advertisement, was also made at that time. 45 Around 1909, having consulted the Service Department of the Ideal Company, the Boyd Brothers introduced several new face designs. They obtained a number of different face plates for rock-face block (Fig. 9) and also two dressed stone face plates for a bush-hammered and vertical-tooled block. 46 The former had a pebbled surface, intended to simulate the effect of bush-hammered stone, and a tooled margin; the latter had a fine ribbed surface (Fig. 10).

The manner in which these blocks were used merits consideration as each block face was employed in a characteristic way. The rock-face and the bush-hammered blocks were generally used for wall construction while the pamel-face and the vertical-tooled blocks were used only for quoins and other decorative blockwork (Fig. 9 and 10). The Methodist Church in Osgoode, built in 1910 but now demolished, was an excellent example of one of the Boyd Brothers' rock-face block buildings (Fig. 11). The white quoin blocks, in the smooth pamel-face design, provide a pleasing accent to the rough, natural gray rock-face walls. Two noteworthy examples of the application of the bush-hammered block were Harry Boyd's own residence (Fig. 12) and the home of W.J. Moses (Fig. 13), both built in 1910 in Osgoode. These two houses are still standing, in reasonably good condition.

The Boyd Brothers'  $imitation\ stone$  blocks, made on the Ideal down-face block machine, were all faced. The facing, referred to as a  $sand\ finish$ , consisted of Portland cement and graded sand, combined in the approximate proportions of 1:3.47 This  $sand\ finish$  corresponded to the type of facing recommended by the Canadian manager of the Ideal Concrete Machinery Company, J. Augustine Smith, in his address to the first annual convention of the Canadian Cement and Concrete Association, held in 1909. He pointed out that block manufacturers usually insisted on using a very fine sand mixed in the proportion of one part cement to two parts aggregate, not realizing that a coarse well-graded sand would make as strong and as attractive a facing with a 1:3 mix. Furthermore, he maintained, this facing produced a more waterproof surface and was less expensive than the standard 1:2 mix, owing to the lower proportion of cement used.48 In contrast to the smooth, cementy texture of the facing made of a 1:2 mix, the  $sand\ finish$  of the Boyd Brothers'  $imitation\ stone$  blocks had

a slightly rough, sandy texture, which clearly anticipated the *exposed* aggregate finish, characteristic of their later blocks.

The Boyd Brothers occasionally used artificial colouring in the form of red iron of oxide to colour their <code>rock-face</code> blocks.49 This produced a reddishbrown colour intended to simulate the appearance of sandstone. There is no evidence that the <code>bush-hammered</code> blocks were coloured in this way. Instead their natural gray colour was varied in tone by the use of different proportions of white to gray Portland cement in the facing mix.50 In Harry Boyd's house, for example, light gray <code>bush-hammered</code> blocks were used for the walls and dark gray <code>vertical-tooled</code> blocks for the quoins (Fig. 12). The use of contrasting colours or tones to accentuate the different face designs was characteristic of the Boyd Brothers' concrete block construction. In fact, this form of decorative treatment was so typical of their work that it could be regarded as one of the company's trademarks.

In response to popular demand, the Boyd Brothers continued to manufacture imitation stone block after their exposed aggregate block was introduced in 1914. In the course of the latter half of this decade, however, there was a noticeable decline in its use, and by 1920 the majority of their buildings were constructed of granite block.

## Conclusion

In the context of the development of the <code>artistic</code> concrete block in Canada, the Boyd Brothers' <code>imitation stone</code> blocks are significant because they constitute an early example of the manufacture of a <code>faced</code> type of block. They were, in fact, undoubtedly one of the first Canadian companies to manufacture <code>faced</code> block. Furthermore, their attractive <code>sand finish</code> was an important factor in their successful promotion of <code>artistic</code> block as a "first-class" building material.

The architectural impact which their buildings have had locally may be attributed, in large part, to the distinctive style of blockwork which they initially developed using <code>imitation stone</code> blocks of different face designs. Between 1907 and 1914 the Boyd Brothers constructed a number of <code>imitation stone</code> buildings which can now be classified as heritage structures. Little consideration has, as yet, been given to the preservation of <code>artistic</code> concrete block structures because their historic value has not been generally recognized. The <code>artistic</code> block represents a significant stage in the development of concrete as an architectural material, and those buildings which exemplify its use form an important part of our architectural heritage.

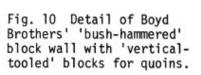
## Footnotes

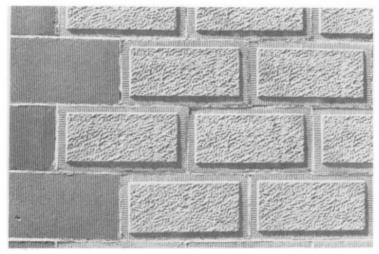
I wish to acknowledge the assistance of Oscar Kingston, Office Manager of the Boyd Brothers Company, who provided much valuable information for this study of their work.

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Fig. 9 Detail of Boyd Brothers' 'rock-face' block wall, showing two different 'rockface' designs.





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Fig. 11 Methodist Church in Osgoode, Ontario, built in 1910 (demolished). (PAC, Boyd Brothers Collection).



Fig. 12 House built for Harry Boyd in Osgoode, 1910 (PAC, Boyd Collection).



Fig. 13 House built for lumber dealer W.J. Moses in Osgoode, 1910 (PAC, Boyd Collection).