

Lawrence then turns to Birmingham, and the ways in which the building was designed to maximise daylight access. To express this, the author provides his own isometric views of the glazing for each of the schools that, by stripping away masonry, reveals the proportional increase of daylight in each scheme. Finally, in Glasgow, Lawrence shows how Mackintosh learned from the previous two buildings and, combined with his interest in new ventilation technology and his own ingenuity, created 'an entirely new kind of "tempered" environment unprecedented in its sophistication'. Mackintosh's use of the Boston-based Sturtevant Company 'Duplex Heating and Ventilating Apparatus' is discussed with expert detail here. A similar technical analysis of the glazing would also have been welcome, particularly as Mackintosh annotated drawings to specify the use of 'Pennycook's Patent Glazing' system.

The three schools are discussed from a historical perspective, with the author's own technical expertise underpinning the more scientific evaluations. Given that each of the buildings is still in use (at least until recently in the sad case of the Glasgow School of Art), it might have lent something to the discussion to include more recent accounts of how these spaces were occupied. Do they still work as intended? How have lighting conditions and expectations changed, particularly now that brighter environments are regarded as necessary for 'health and safety'? Perhaps that is an area for further study, inspired by this text.

Lynn Pearson, *England's Co-operative Movement: An Architectural History* (Swindon, Wiltshire: Historic England, 2020), 264 pp. incl. 300 colour and b&w ills, ISBN 97817892393, £40
doi:10.1017/arh.2021.25

Reviewed by JULIAN HOLDER

Those interested in either the architecture of the Co-operative movement — begun in Rochdale as a form of friendly, or mutual, society in 1844 — or the history of architectural practice (and particularly the history of official, or salaried, architects) have been looking forward to this book for some time. The wait has been well worth it. Apart from the scholarly exposition of these histories, the book also implicitly poses the question: was there such a thing as a recognisable Co-op architecture? With such a varied range of functions — from shops and bakeries to mills, factories and warehouses — as well as styles over nearly two centuries, it may seem a ludicrous question. Yet, in a parliamentary debate in 1927, the Labour MP James Gardner certainly thought he detected common characteristics when he referred to the Co-op as having 'ugly buildings'.

Even an in-house publication described the stores as 'dismal', and the Co-operative Wholesale Society Architects' Department, although founded as early as 1896, held no monopoly over the Co-operative movement's architecture. Commissioning decisions were made by the fiercely independently minded local Co-operative Retail Societies throughout the country, which were run for members' interests rather than profit, and appearance came second.

However, following such a public denouncement in parliament it may be no accident that, during the next decade, a number of startlingly original central stores were designed by the Architects' Department which outdid competitors such as Woolworths in their originality and modernity. Predominantly built in northern towns such as Huddersfield, Southport, Bradford and Newcastle, they refute another aspect of the MP's attack on the Co-op for employing 'people who are alleged architects but who have had no training and who are a disgrace to the profession to which they allege they belong'. The Architects' Department had undertaken foreign study tours to Holland, Germany and Russia, and it shows. Only by this time did the method of its production give unity to Co-op architecture.

In its early days, to shop at the Co-op you had to be a member, and thus its presence did not need to be advertised. The movement viewed advertising, which included 'commercial architecture', with mistrust. Architects were also often treated with a class-based suspicion as members of a 'profession'. Yet this attitude gradually changed, and by the end of the nineteenth century the movement's architectural contribution to civic life was considerable. In burgeoning industrial towns such as Hartlepool and Morley, the Co-op central store or emporium was as much a civic landmark as the town hall with whose architecture it vied. Often boasting large first-floor halls and educational and recreational facilities, such Co-ops were effectively 'people's palaces'. No less important (but too easily overlooked) was the Co-op's contribution to distinctive patterns of suburban life with its corner shops and shopping arcades including butchers, bakers, pharmacies, travel bureaux and, of course, funeral directors.

An unintended consequence of the initial indifference to 'the art of architecture' was the way that the movement paradoxically helped to develop the architectural profession. The responsibilities of individual societies' building committees grew as their work expanded. 'Unusually for a working-class group,' the author notes, 'the members were able to exert some influence over the appearance of their built environment.' In some cases, committee members from the building trades became the builders of their stores, and eventually reached more professional positions as architects to their societies. This was therefore not only an architecture for the people, but sometimes by the people.

Disregarding the central Architects' Department, the more independently minded societies often preferred to maintain such close relationships with their builders and architects. And given their mistrust of the 'professional', they liked the notion of the 'untrained architect'. Confusingly, Lynn Pearson refers to the architects of Co-op buildings by a variety of collective titles. While the full-time salaried status of those employed in the Architects' Department is clear, the status of those described variously as 'staff', 'in-house' and 'regular architects' remains far from clear — though what is certain is that some of these categories do not refer to the Architects' Department. We need to know more about the basis on which these other architects were employed. Were they 'salaried' by their individual societies, or kept on a retainer with agreed fees as school-board architects had been? There were local architects, such as William Munford, who designed three or four stores a year for the Preston Industrial Co-operative Society, including its new central premises of 1908 constructed using the Hennebique system. He became equally in demand with other societies in Lancashire and Cheshire. There are also practices such as Smith & Walsingham (builders from Lincolnshire) who established

an architectural dynasty in Manchester and Salford on the back of the Co-op, Smith going on to become Mayor of Eccles.

Ultimately, however, the professional growth of its in-house architectural expertise — with a head office in Manchester and branches in Newcastle, London and Cardiff — won the day. A Co-op magazine in the 1930s sought to shame reluctant societies into employing them by triumphantly asserting that the majority ‘no longer entrust their professional work to folks with capitalistic association and individualistic notions. We have our own architects.’

Published by Historic England (now an imprint of Liverpool University Press), the book covers the often labyrinthine history of the Co-operative movement from its origins to the present day, supported by a wealth of archival and contemporary illustrations, three useful appendices and a selective bibliography. The buildings are meticulously woven into this sometimes dense narrative, clearly based on considerable original research. Pearson has produced an expansive, chronologically arranged historical survey, broken down by broad building types (retail and industrial), then further subdivided, and as a general survey it is unlikely ever to be bettered. Methodologically it is an uneasy mixture of historical geography, architectural history and industrial archaeology, but the subject probably necessitates such a broad-brush approach. It is disappointing that the author does not go further into the politics of the Co-operative movement and its affinities with the labour and trade union movements, given their crucial importance; and that avenues such as the design of Co-op housing, or the suggestion that expressionist architecture flourished best where direct labour was available, are not pursued with more vigour.

However, this is a vast subject, and the Co-op was so all-encompassing in its ‘cradle to grave’ provision that the only way to cover everything would be through a comprehensive online catalogue such as Julian Osley’s on British Post Office architecture. Given the ubiquity of the Co-op, it is probably post offices that are its closest relative of ‘everyday architecture’, both in terms of numbers, complexity and technical ambition. Other comparators must lie in other branches of the Office of Works, perhaps the private railway companies, and local authority architects’ departments.

Whether pursuing individual societies, buildings or architects, Pearson’s book must be welcomed as the starting point for all future researchers. To unravel such a complex subject is almost as heroic an undertaking as the Co-operative movement itself.

Juliet Dunmur, *Edward Maufe: Architect and Cathedral Builder* (Bury, Greater Manchester: Moyhill, 2019), 353 pp. incl. 28 colour and 54 b&w ills, ISBN 9781905597925, £20
doi:10.1017/arh.2021.26

Reviewed by DAVID FRAZER LEWIS

Edward Maufe is presented as a somewhat flat character in most existing histories of British architecture. Although he appears from time to time as the capable designer of