

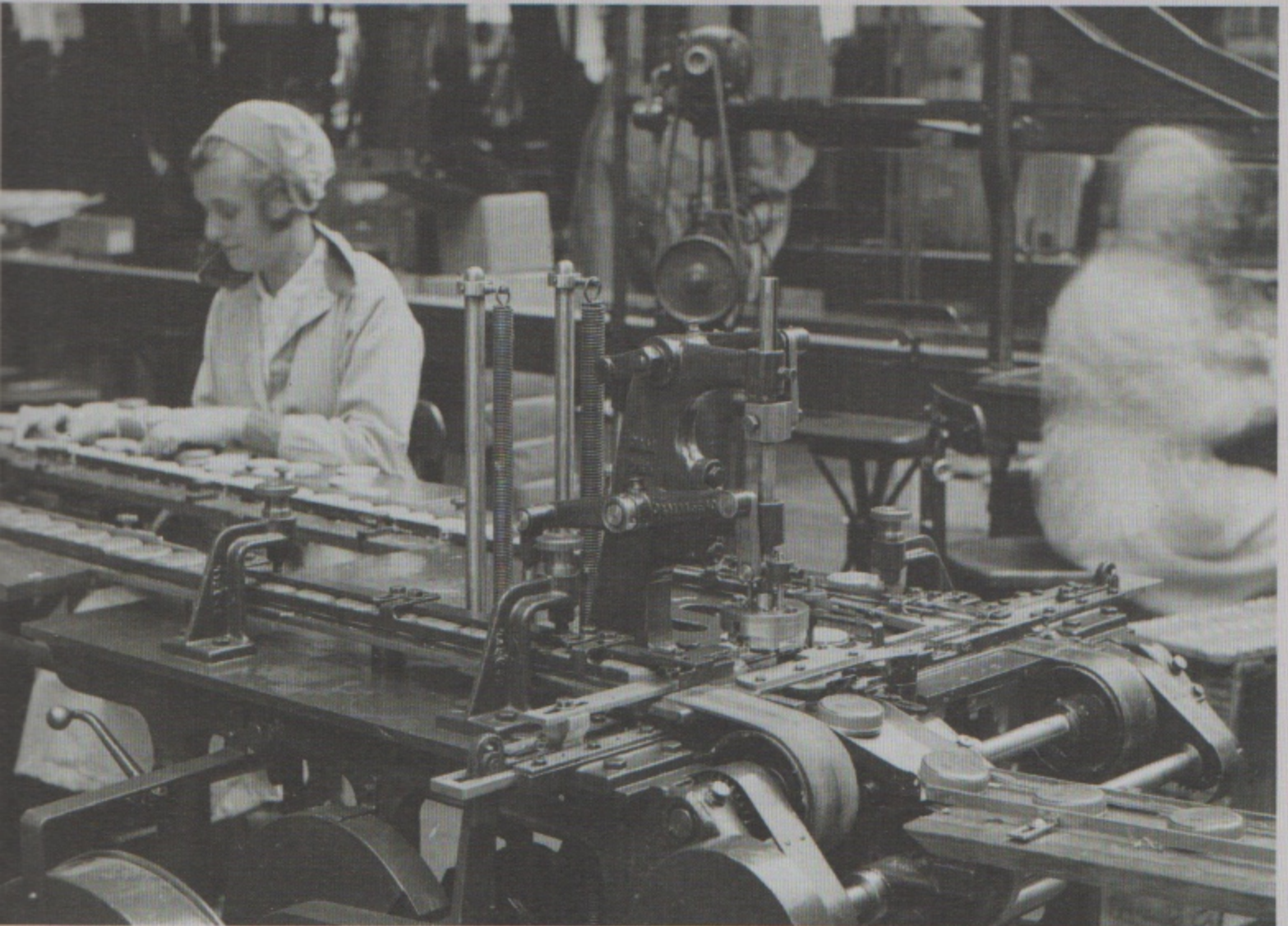
C20

A modern wonder:
the 1930s Boots factory

Misha Black:
pioneering designer

Seaside pleasures:
C20 Bournemouth

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Left: the north side of the Boots D10 factory, near the dispatch loading bay. The jagged spurs were designed to connect to a possible extension, while the projecting rails supported window-cleaning equipment. Right: Women packing boxes on to the overhead conveyor in D10 (c.1935) – notice the male overseer. The horizontal conveyor system was removed prior to listing in 1971

In the modern factory

Chris Matthews introduces some remarkable interwar photographs of Boots in Nottingham





Left: Delivery dock south of D10, showing cantilevered shelter with travelling crane beside railway and wagons. Trains ran either side of the building as well as through it via a tunnel. The railway and steam engine were removed prior to listing.

Above: west elevation of D10 in front of the D6 'drys' building. In the foreground are railway tracks, some of which can still be seen in a nearby car park. Below: the front elevation of Williams's D21 chemical works, completed by 1938. Production began c. 1940, making aspirin, flavines, bismuth salts, chloroform and iodides

The Boots factory site at Beeston in Nottingham is widely seen as one of the most important industrial estates of the twentieth century. In his 1951 *Buildings of England*, Pevsner described it as 'a milestone in modern architecture, and especially concrete architecture', and Sir Evan Owen Williams's D10 'wet goods' factory of 1932/33 was listed as early as 1971 (it is now Grade I). Even in 1932, the *Architects' Journal* was predicting that it would 'influence the designs of all similar structures for many moons'.

These photographs from the company archive, together with other contemporary coverage of the site's development during the 1930s, suggest that at the time it was seen as remarkably progressive – even futuristic. These are compositions in which humans, rather than being focal points, are rendered as parts of an efficient whole, blurred,



cropped and obscured by modern machinery. 'The modern world denies that drudgery is blessed,' declared a Boots factory souvenir of 1934: 'The modern factory has abolished drudgery.'

Boots's inter-war publicity message – the idea of using machinery to create a better society – may reflect the contemporary ethos of the Bauhaus, but the company's principles were probably influenced less by Dessau than by the extraordinary success of its 1930s buildings, which were so efficient that it could implement a five rather than a 5½ day week with no cut in pay. 'Science, therefore, rather than architecture, erected this new home for Boots,' wrote Cecil Roberts in the in-house publication *Achievement* in 1938. 'Wasted Labour is extravagance, it wears out the worker, it increases the cost, its end is irritation and possible bankruptcy... It follows then, that a pleasant atmosphere is conducive to good work, and an organisation which reduces physical labour and the noise of mechanisation to a minimum achieves a less costly and increased output.'

In a radio broadcast of December 1933, the head of the company, John Boot (Lord Trent) was equally forward-looking. 'It is our pride that this is an almost silent factory,' he said, 'for in planning it and installing the plant, it was one of the chief aims to eliminate the noise as much as possible so that the workers should be in quiet and peaceful surroundings. I should like you to visualise



This photograph shows the packing hall looking east, with gravity chutes from the materials store on the right, and vertical hoists to the finished goods store on the left. The overall effect is very similar to Albert Kahn's multi-storey Ford factory buildings of 1914. Kahn, with his brothers Julius and Moritz, set up the Trussed Concrete Steel Company (Truscon) and opened a London office in 1907. Williams worked there from 1912-16. But by the time D10 was complete, the American car industry was moving towards single-storey factories



the building as a vast Crystal Palace of industry, with walls and roof made of glass, cool and spacious and restful to the eye.' This was a message the company promoted widely and, in the midst of a depression, the story of Boots's 'wonder factory' offered hope. Trent was regularly quoted as calling for a 'Roosevelt plan' to employ a million men, using machinery to create more leisure, and offering a compulsory month's holiday.

This sense of excitement and possibility was strengthened by the design of the buildings. Though this was largely the responsibility of Williams, it was actually made possible by management restructuring. By 1920, Jesse Boot (1850-1931) had been at the helm of his chain of retail chemists for over forty years, and seen it grow from a single shop at Goose Gate, Nottingham into the largest chain of chemists in the country. At 70, however, Boot was finding it hard to keep a close eye on his business, and – wanting also to fund a new site for Nottingham University at Highfields – he sold the firm to the United Drug Company. Although his family retained an interest (and Boots returned to British control in 1933, in an initiative led by Jesse's son John) this brief spell of US ownership injected new ideas about manufacturing and management.

Boot had acquired some 200 acres of land in the Dunkirk district to the south-west of Nottingham, where construction of the Beeston industrial estate began in 1928.

The buildings that followed display the tensions between the traditional and progressive aspects of the firm's approach. Some of the plans and buildings, such as the D1 soap factory, D19 engineering offices and the Turbine House, were classically proportioned and designed by Boots's in-house engineer H C Jessop. Williams, however, could embody both aspects of the company's psyche: he was a man of the establishment who also had a record of innovative engineering achievement with the British Empire Exhibition (Maxwell Ayrton, 1921-24) and the *Daily Express* building in London (1929-31) where he was engineer with the architects Ellis and Clark.

The four-storey D10 building by Williams which features in many of these pictures is of reinforced concrete with octagonal mushroom columns carrying reinforced concrete floor slabs, and continuous curtain-wall glazing. Its form closely followed the production process, with delivery and dispatch taking place at opposite ends of the building. Inside there are concrete cantilevered stairs from lift towers at the west end. Four east-facing rectangular light wells form a full-height atrium down the centre of the building, top-lit by glass discs set into the concrete roof. Creams and other 'wet' goods were manufactured on the ground floor, with finished products stored in adjacent galleries. Flexible partitioning could be taken down or put up as needed.



Above left: materials were supplied to the packing hall by gravity chutes from the upper levels. The projecting balconies are still in place, although the chutes were removed prior to listing. Above right: the D10 packing lines in motion

Opposite top: an industrial health unit in D10. Nurses attend to employees, who are seated on tubular steel chairs. Bottom: a Boots perfume advertisement of 1938



The D6 'dry goods' building of 1936 (where powders were produced) was similarly based on a grid of flat slab concrete floors held up by mushroom columns. It had a huge column-free covered loading dock, held up by Z beams suspended from the top floor. It too is listed Grade I.

The excitement of this alignment of form and function is clearly expressed in these photographs. They also give insights into some of Williams's lesser-known buildings, such as his Grade II reinforced concrete fire station (D34) of 1938, or the six splinter-proof bomb shelters (D12) of 1937 (whose proto-brutalist hexagonal concrete cylinders also doubled up as cycle shelters). The following year, his D21 chemical works was remarkably similar to his Empire Pool at Wembley. His functionalist proposal for a canteen, however, was turned down, the Boots management preferring the paternalistic symbolism of H C Tanner's impressive Dutch-style brick building (D31) of 1937/38, which could seat 2000 people.

Many of these buildings are unlisted and little known, perhaps understandably, as the Boots site is vast and remote. The archive contains a mountain of material which would repay further study and add greatly to our understanding of British industry and its architecture during the inter-war period. *A longer version of this article will appear in a future special issue of the Journal of Architecture, The Meanings of Concrete.*

Former Boots archivist Abbey Rees-Hales adds: The photographs on these pages come from the extensive Boots Archive and Museum collection. In archive box Yo48 is an album of black and white photographs, and some of the small and fragile prints it contains have been digitally re-photographed for this article. Originally commissioned by the Boots publicity department, these images record the development of the Beeston site, for the most part between the wars. The collection is still held at Nottingham, and contains about half a million items spanning the company's 165 years of trading. Architectural photographs and plans document Boots stores, factories, warehouses, offices, staff and transport facilities from the 1880s onwards.

But the archive is much more than this: it is also a rich resource of pharmaceutical, technological and social history. It contains a wealth of health and beauty products, customer literature from 1900 onwards, staff magazines dating back to 1915, product files and formulations, and details of shop fittings, pharmaceutical and manufacturing equipment. The range of material reflects the surprising diversity of the business over the years, which once included subscription libraries and cafes as well as the largest picture-framing department in Europe.

There is also an impressive collection of packaging designs, many of them hand-painted, from the 1900s to the 1970s.

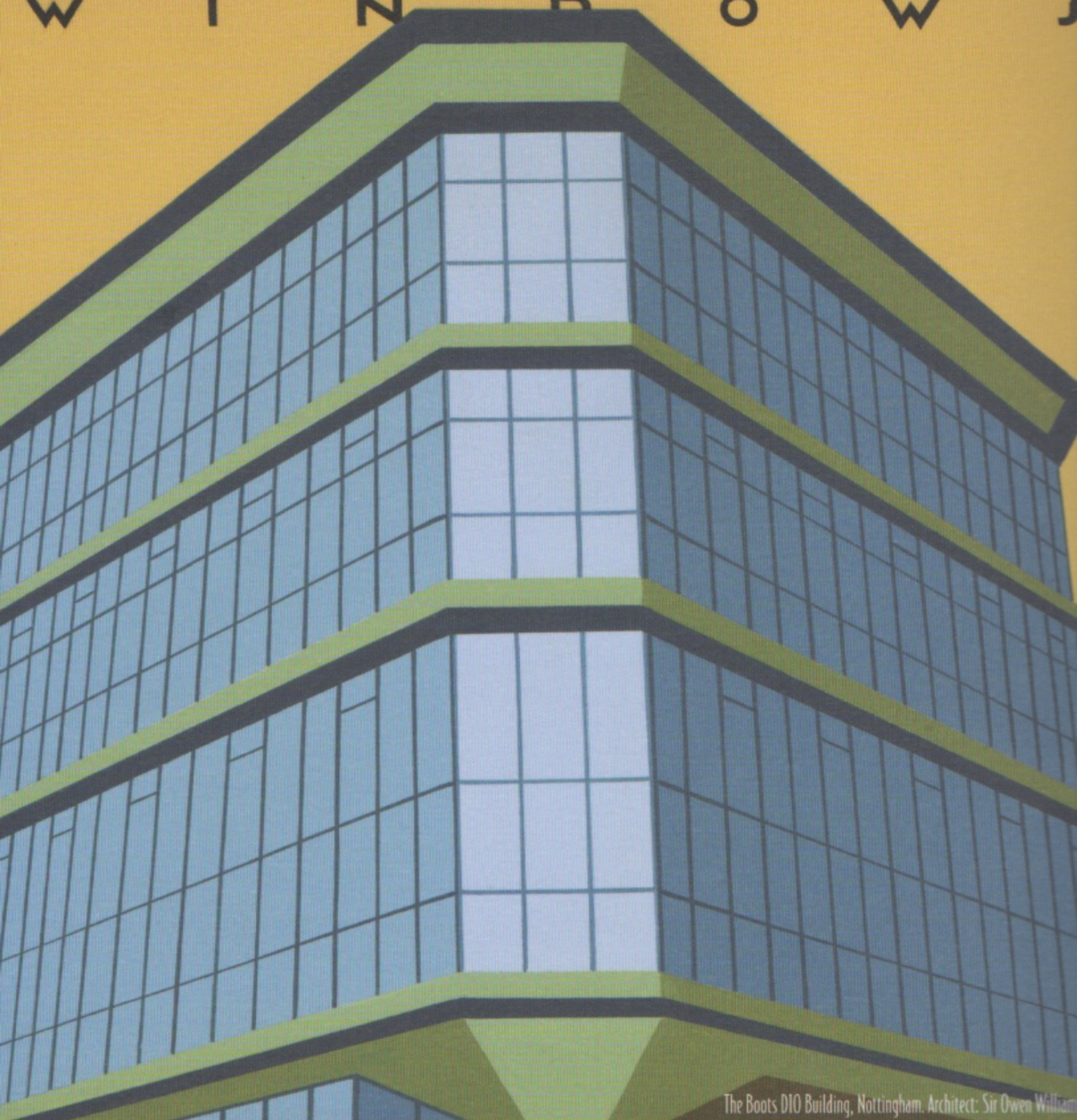
The inter-war period is particularly well represented, and Boots's strikingly modern packaging design was featured in the *British Art in Industry* exhibition held at the Royal Academy in 1935.

The archive is not currently open to the general public, but is beginning a five-year programme to make the collection more accessible. It will try to answer enquiries relating to the history of the company: contact charlotte.mccarthy@boots.co.uk.



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W I N D O W S



The Boots D10 Building, Nottingham. Architect: Sir Owen Williams

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