What Happened to British Modernism?
(The Serpents of Moreton Marsh)

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'The higher the standard of living that brings a higher standard of personal comfort, brings also a more civilized outlook upon the environment outside the home. We surely can, in time, realize with the Greeks the ideal of "Body, Mind, and Spirit".

Sir Geoffrey Jellicoe *Studies in Landscape Design Vol. II* p48

To understand the water parterre at the Cadbury Bros. Ltd. factory (now Burton Foods) at Moreton in the Wirral, it is necessary to reflect on the nature of post-war Britain, as well as the background and interests of Sir Geoffrey Jellicoe. The first point is relatively simple: Liverpool and Birkenhead were heavily bombed during the war and a new factory would be a major asset in reconstruction. Originally designed to employ 450 men and women, the factory at its peak employed 6000 people, but unlike the earlier industrial villages such as Port Sunlight or Bourneville, the fuller schema of life would not be included. Cadbury's new plant did not include mass housing, schools, etc. within its plans. While it was a place of work first, it did provide sports facilities, playing fields and a social club for the workers. There was still a level of paternalistic design, but mixed with the remnants of pre-war modernist design thinking and new manufacturing technology.

Why or how Jellicoe was employed on this project is not yet known. Prior to the war, he practiced as an architect, while his work as a landscape designer was primarily confined to country houses. In 1934, his design for the Caveman Restaurant at Cheddar Gorge (influenced by Eric Mendelsohn's De La Warr Pavilion, Sussex) tagged him as an innovative modernist, while the landscape by Russell Page was as modern as the building. They incorporated a simple rectangular pool of water, not dissimilar to Mies Van der Rohe's Barcelona Pavilion of 1929, although it featured a single fountain jet to the centre. Page wrote about water that 'My thought is always "How little can I do?", rather than how much, to achieve the most telling result'.[1] Page's comment summarises a modernist approach, but Jellicoe's lifelong fascination with water is based in the classical Renaissance gardens of Italy. It was here that he and Jock Shepherd travelled together and in 1925 published the results of their tour-*Italian Gardens of the Renaissance.* Tom Turner wrote that as a design element, water had dominated some of Jellicoe's most successful schemes.[2] This point is further supported by Michael Spens when referring to Shute House, wrote: 'For water, in all its amazing variety, was ultimately to become the key formative element in Jellicoe's ensuing oeuvre'.[3]

The war years show Jellicoe moving to more commercial/industrial work such as Earle's Cement Works (Hope Valley, Derbs. 1942), Pitstone Cement (Bucks. 1944), and ICI (Wilton, Yorks. 1945). His post-war work included outline town plans for Guildford (1945), Hemel Hempstead New Town (1947), and Wellington (Shops. 1946) along with several projects in Zambia. There was growing demand and concern for good landscape treatments for industrial sites, and the Institute of Landscape Architects (ILA) first conference in 1957 was titled 'The Landscape of Industry'. Earlier in 1949, the ILA president Thomas Sharp raised his concern over the problem of public utilities, particularly power stations, in his address titled 'Temples of Light and Power'. The Cadbury Bros. factory fits comfortably within this timeframe, industrial developments, and Jellicoe's growing interest in water. However, it stands out as perhaps his first real design with extensive concrete water features (1952) and predates the better known designs of both the water garden on the roof of Harvey's Department Store (London 1956-57) and the Hemel Hempstead water gardens (1957-59). Messrs Cadbury had a well grounded reputation for social responsibility that had been demonstrated at their Bournville 'factory in a garden'. The winter 1936 issue of *Landscape and Garden* referred to this project under an article titled 'Industrial Gardens' and included information on the forty-three gardeners and ground staff, as well as the maintenance equipment. Two years earlier, the same journal promoted the advantages of a good factory landscape as a new innovation, The Factory Garden.[4] This was not an entirely new creation as there was substantial precedent through earlier industrial developments such as Salt Aire and Port Sunlight, however there was a major shift in the nature of the 'factory garden' in the post war years.

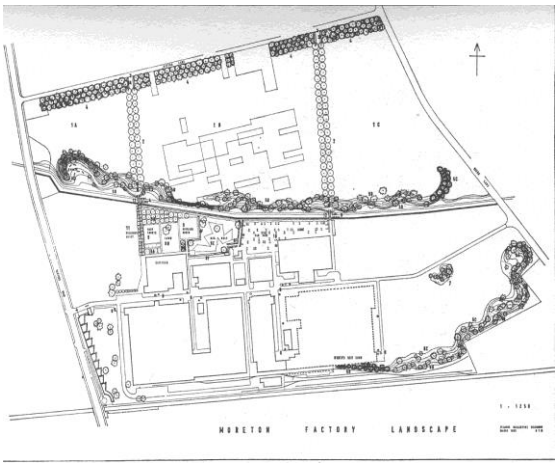

Fig 1: 'The layout is based on wind protection in a dreary and exposed environment. The geometry of the factory is extended by tree planting to form compartments whose future use is undetermined. Such a design by itself would be monotonous, but soil from the canal or drain has been remodelled into wind-deflecting hills planted with a variety of trees; those on the exposed side being hardy and those on the inner side being tender. The shape is suggestive of prehistoric animal form'.
Jellicoe, GA *Studies in Landscape Design Vol. II* p 47 (drawing and quote)

Moreton posed enormous technical problems as it was exposed to the winds off the Irish Sea, as well as being low and badly drained. It was clear that this was a site Jellicoe did not care for and a report he prepared in 1963 said: 'I think the idea behind this scheme points the way to what I have been trying to suggest today-that the imagination can create worlds which do not in fact exist…From the point of view of landscape it is a diabolical site. It is bare and exposed to the most violent winds. There is a major drain, now a canal, of great width and depth cutting the site in half'.[5] In the same report, he described how he attempted to humanise the site by breaking it into smaller geometric units which could be used for factory extensions, playing fields or housing. He used the building positions and new tree planting to provide shelter and spatial definition (Fig 1). The leftover heaps of soil from the major drainage channel, along with soil that would be produced by the building works, were used to create a mound with the new trees running along the entire east-west axis, to the north side of the new factory buildings. A second mound was proposed in the southeast corner of the site, along with a wind break to the north side.

A developing trademark of Jellicoe was his use of metaphor; he believed in supplying these and interesting titles to his features as a means of stimulating the imagination. At Moreton, he developed a storyline where the mounds took on the 'extended shape of two serpents'; he referred to this as a clue to his design, where nature provided the aesthetic quality. The serpent was also a reference to the 'vast prehistoric monsters' that would have inhabited the submerged forest that once existed on site. He used the same symbolism of the serpent for the water canal at Hemel Hempstead new town; in this case the serpent was seen as the guardian of the environment. The metaphor continued into the planting where the windward side of the mounds would be 'armour-plated with tough hardwood or conifer trees, whereas the inside face (being the soft under-belly) would be richly planted with flowering trees and shrubs'.[6] A photograph appeared in the Architects' Journal (1954)[7], taken from the raised embankment or the adjoining station platform. This vividly demonstrates the exposed and empty nature of the site in its early years. In the National Playing Fields Association report, Jellicoe had said that it would take twenty years before the planting had any real impact, a mature serpent.

The Moreton Ponds

Describing the most memorable feature of the Cadbury factory as ponds undermines both their quality and role in Jellicoe's portfolio of work. He referred to the water as a barrier between the factory and the public highway, which in part explains their unusual location. Normally such an extensive and expensive feature would be located at the main drive or to the immediate front of the main building entrance, yet it is detached from these areas. Jellicoe's site planning was comprehensive; it addressed the entire site rather than simply the front door (fig 2). He planned sports fields, a bowling green and gardens near the social club. A factory horticulture club existed for many years. His planning strategy took account the main approach route for the employees. Most would come by foot or bicycle from Moreton or the adjacent train station. In both cases, they would walk along the adjacent raised footpath which looked down onto the water feature. Having arrived at the main entrance into the factory grounds, there is a powerful vista of the cascades that looks up the length of the feature (Fig 3). The factory remains at a distance across a large expanse of grass, a separation of work and leisure. From the factory, there is no view of the ponds, only some distant planting. It is necessary to leave the factory in order to see the ponds from the informal grass areas, or from the road side area where there are small viewing balconies overhanging the water. Jellicoe wrote that 'the modern water barrier corresponds to the eighteenth century ha-ha, for its purpose is to provide a fence which, though not invisible itself, nevertheless conceals its true purpose…its intention is not to keep out the determined attack but rather the casual. It should be more than jumping width and too deep for paddling'. He described its tradition as based on the cattle moat around an English manor house, rather than an impregnable castle moat, but in modern society it should be decorative in appearance.[8]

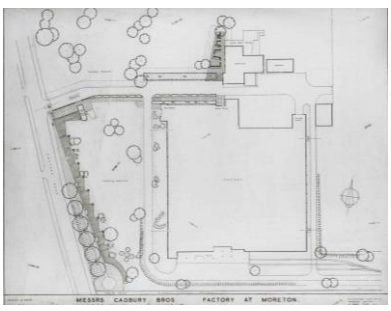

Fig 2: Master Plan for factory entrance by G A Jellicoe

Jellicoe, never one to copy nature, promoted the abstraction of nature within his designs. Moreton with its flat topography was not suitable for a series of naturalistic cascades, there was insufficient level change. Additionally, his interest was in modern design, not in faux-nature which would have been wholly inappropriate with the ideas of the time and for the new factory buildings (designed by C J Wilkinson, Cadbury's staff architect). Jellicoe approached water as an art form, but with the quality of movement that a painter could only allude to. His work and theories were influenced by the paintings and sculptures of Paul Klee, Barbara Hepworth, Ben Nicholson and Henry Moore. He was concerned particularly how as a designer he could give greater meaning by reaching the subconscious of the viewer. His references were not solely with his contemporaries as he drew heavily on his knowledge of history, particularly the Renaissance, along with the writings of Humphry Repton and the role that illusion played in the way we perceive the landscape.

Fig 3: Looking south along the water canal towards the water source. Photo by Susan Jellicoe, 1950s.

Jellicoe incorporated perspective illusions in many of his projects, most notably in the Magritte walk at Sutton Place. When writing about water, he said that 'distance in the canal can be increased or decreased by adjusting the apparently parallel lines of the perspective. Size can be increased by adjusting architectural details such as the handrails of bridges whose normal height is familiar. Distance can be increased by eliminating boundaries…or suggesting mysteries behind islands'.[9] Illusion plays an important part in the layout of the water parterres at Moreton. Moreton has ten pools, nine cascades and four balconies. There is no change in the balcony size or railing heights, or in the size of the pools. However, rather than using a layout of two parallel lines for the length of the feature, Jellicoe used an off-set angle to each pool, tapering every one individually although at the same repeat angle. This creates a sense of increased distance looking from either end as it is impossible to read it as a single piece of water, or to understand the size of each pool. On the factory side, the projecting point of each pond is anchored to the landscape with a raised square planter. These planters act as punctuation points in the landscape, taking the eye to the side and pausing to take in the detail; more importantly, they disguise the boundary of the lawn and pool edges. It may be that there were different types of plants used to enhance the deception of scale, although this was probably too fussy for Jellicoe. So far no planting plan has been found, the only reference is the overall site plans which indicate shrub and tree areas, but not species. The last illusion is at the southern end, near the train station, and the source of the water. The master plan for the area shows the largest concentration of trees and shrub planting to this area. Effectively, the plants are green islands that disguise the end of the top pond and the water inlet, the illusion is that the water must continue past the top pond which is curved to the left. From the lower viewpoints, boundaries have been eliminated; there is no sense about how extensive the canal might be, where the source of the water is, or what mysteries lie beyond.

A range of technical details have been developed for artificial water bodies, the most important being to stop them from leaking, a current problem at Moreton. The ponds (Fig 4) are constructed of in-situ concrete with a black painted lining to give the impression of greater depth and to allow for reflection. As a low lying site with limited drops across the whole length, Jellicoe recognised that the flow of water, even with pumps, was going to be limited. He recommended that where the flow would be small, that channels or vertical grooves in the face of the weir could be used, thus giving the illusion of a greater flow of water.[10] He used this detail in the weirs, and the viewing balconies, at Hemel Hempstead,[11] however Moreton appears to be his first use of this detail proceeding Hemel Hempstead by several years. The other issue was to ensure that the weir was absolutely level or the water would fail to fall evenly, presumably another lesson learned from Moreton and applied to Hemel Hempstead.

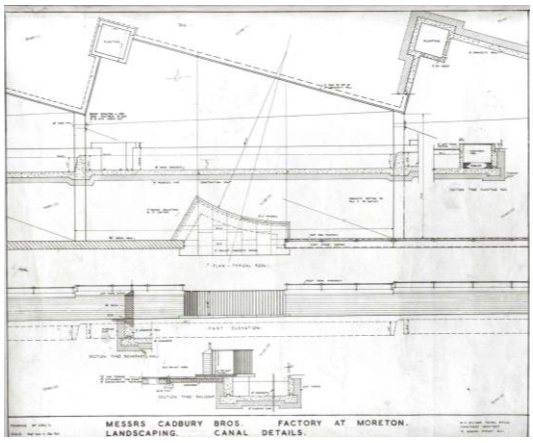

Fig 4: Detail drawing of the ponds, weir, and balconies. This drawing and Fig 2 are date stamped 14 Nov 1952, either the date Cadbury's received or approved the drawings.

Note: Jellicoe was never confident in his own drawing abilities. It was not until he 'retired' at the age of 70 that his own style of drawing developed that matched his ideas of landscape.

Moreton is not a lost landscape as was Heligan, it is simply one that has been overlooked and forgotten. It was by chance that the archivist for the Landscape Institute, Annabel Downs, happened upon this place having arrived at the adjoining station. Realising this was far from an accidental piece of design, or that of an amateur, her research led her to Jellicoe as the designer. This then led us to our research and a meeting with Alan Minx of Burton Foods. The name Jellicoe meant nothing to the people at Burton Foods, and we had not realised the importance of the mounds and water gardens within the history of 20th century landscape design and Jellicoe's work. Moreton is pivotal in the development of Jellicoe's thinking; it is really the first of his water gardens which combine his theories on perspectives, scale and the use of metaphor. It was his experimental ground for greater things to follow such as Hemel Hempstead water gardens. As of now, work has been carried out on sealing the leaking concrete basins and work on the pipes and pumps has started. In a rare piece of good luck, some of the original plans for the gardens were still at the factory and have since been deposited with the Landscape Institute. It is not known if any drawings of the buildings still exist.

There is an important legacy for the northwest in terms of both having an unique piece of work by Geoffrey Jellicoe, and an important design piece that has helped to inform modern thinking of our industrial landscapes. Hal Moggridge, who worked for Jellicoe in the late 1950s and the 1960s wrote that 'Geoffrey Jellicoe's gift, and his habitual method, was to explore opportunities and expose new possibilities in the design of types of landscape which were about to become more commonplace in professional practice'.[12]

Notes & References

[1] Page, Russell *The Education of a Gardener* Collins, 1962 p227. Jellicoe and Page also worked on the Royal Lodge, Windsor Great Park. Their partnership ended in 1939 at the start of war.

[2] Jellicoe, Goode & Lancaster (Ed.) *The Oxford Companion to Gardens* Oxford University Press, 1987 p302

[3] Spens, Michael *Jellicoe at Shute* Academy Editions 1993 p11

[4] Harvey, S & Rettig, S (ED) *Fifty Years of Landscape Design* The Landscape Press, 1985 p122

[5] Jellicoe, G A *Studies in Landscape Design Volume Two* Oxford University Press 1966 p46. The original report was prepared for the National Playing Fields Association's conference on Recreation in the Community, 6 Nov. 1963.

[6] Ibid., p48

[7] *The Architects' Journal* 2 Sept. 1954 Factory at Moreton, Wirral, Cheshire (author not identified) p288

[8] Weddle, A E (ED) *Techniques of Landscape Architecture* Chapter 8, Water by G A Jellicoe; Heinemann, London; 1967, p134

[9] Ibid., p140

[10] Op Cit., p130

[11] Jellicoe wrote about this detail in Weddle's *Techniques of Landscape Architecture* p130, and included a photograph of a detail of the weir at Hemel Hempstead

[12] Harvey, Sheila *Geoffrey Jellicoe* LDT Monograph No 1; LDT, 1998, p21