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Industrial Identity and Legacy in the case of the CEGB
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British Rail

For celebrants of modernist design, mentioning British Rail (BR) will likely conjure images of Kinneir and Calvert's Rail Alphabet and Design Research Unit (DRU). Established by Milner Grey, Charles Basset and later Misha Black, DRU's work for BR began in 1963 and produced a simple and effective standardisation of signage across an extensive field. The programme to develop BR's corporate identity was noted as the "largest and most complex" undertaken in the UK at the time and was deemed necessary to coordinate and unify a relatively newly nationalised industry through a clear identity.[i] The raison d'etre of the *British Rail Corporate Identity Manual* was a combination of public relations, coordination, optimism and demonstrative cost-effectiveness in the interests of the taxpayer.[ii] It is no surprise then that this approach spread to other nationalised industries optimistically delivering major infrastructure in the modernisation and reconstruction of Britain.

Enter: The Electricity Sector

The Central Generating Electricity Board (CEGB) was the most coherent and comprehensive manifestation of the nationalised electricity industry in post-war Britain. Formed under the 1958 Electricity Act, the CEGB owned and operated the transmission system and generating stations in England and Wales. It was responsible for the supply of electricity to 12 area boards and its duties included the provision of new generation and transmission capacity. In short, an organisation comprising regional divisions, controlling large complex infrastructural projects requiring coordinated input from architects, engineers, landscape architects and industrial designers, to name a few. A nightmare for graphic consistency and standards. Yet one which left us with a striking flame orange legacy, perhaps undervalued in comparison to the cherished logos, type, uniforms and vehicles of BR.

The CEGB brand identity is credited to Richard Guyatt who was consultant to the CEGB Public Relations department between 1964-68. Guyatt was a Professor of graphic design at the Royal College of Art. He continued practising alongside his academic role and later became founding partner of the Guyatt/Jenkins design group after working with RCA colleague, Nick Jenkins on the 'cube' WHSmith identity launched in the 1970s.[iii] During the war, Guyatt worked in Camouflage at the Ministry of Home Security alongside artist, Robin Darwin, with whom he formed a formidable friendship over the concealment of Scotland's factories from the Luftwaffe.[iv] After the war, Darwin

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was appointed Training Officer at the Council of Industrial Design (COID) and in this position recruited Guyatt to lead the reformation of the Royal College of Art which heralded a breakthrough for design specialisms such as printmaking, illustration, photography and typography.[v]

The CEGB logo in flame orange designed by Richard Guyatt, graphic consultant to the CEGB Public Relations department.

Standardisation spread to all areas of the CEGB.

Administrative reorganisation and the introduction of the CEGB was accompanied by rebranding which served both a cost effective strategy and established a coherent appearance in the public interest. “As the relations between the engineers and the architects section [of the CEGB] are so good, it is inevitable that gradually the work of the section is being expanded from pure architecture and amenity to the industrial design of equipment.”[vi]

Source: Left: https://c2.staticflickr.com/6/5241/5316535695_45b3e35bfc_b.jpg
Right: https://serendipityproject.files.wordpress.com/2011/10/design-drawing-one-by-john-rolfe-cegb-queens-award-to-industry.jpg

Guyatt’s symbol for the CEGB, was a beacon of the future in flame orange, the house colour of the CEGB. The logo symbolised the CEGB in the form of three continuous white lines making up a lower-case ‘e’ for electricity. Guyatt was known for considering typography as the “backbone of graphic design”.[vii] The typeface Univers was adopted by the CEGB as a standard because of its general availability. In other sectors of industry and infrastructure, standards and identity received significant attention, for example the new language of roads and motorways developed by leading type designers Kinneir and Calvert, which continues to direct and inform our vehicular travels today. Given their ‘Transport’ fame, it is not surprising that Kinneir and Calvert were consulted by the CEGB where they advised the use of Neue Haas for lettering on CEGB notices. [viii]

Simplicity and standardisation were at the core of the CEGB identity brief for an industry perhaps just as complex, if not more so, than BR.[ix] Typefaces were selected for their availability and minimised the costs of distribution across all divisions of the CEGB. Inconsistencies between publications made by regional public relations departments and those issued by central head office sometimes raised concerns for public relations. This was particularly acute ahead of the nuclear programme. The need to communicate a coherent and controlled organisation, capable of delivering emerging and unprecedented technologies and calming public concerns was paramount. New siting strategies proposed massive power plants located in the countryside and in remote coastal locations and public confidence was one important factor in their development. The simplicity of the symbol captured the CEGBs “commanding position to improve the standards of design in the heavy electrical industry” and to reconcile the physical scale of the engineering works with the vast, human scale of the administration needed to support it. This was the design work which conveyed the optimism and control needed in the construction of infrastructure fit for modern lifestyles.

The application of industry wide standards informed by the CEGB’s own standards committee extended to vehicles, interiors, office furniture and more. Clear specifications and use of resources were provided for these aspects of the organisation. Power stations were different, though. Their unique locations

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and requirements demanded that engineers adapt and respond to the settings, output and network loading amongst other parameters. Bespoke design always had a place in the context of the electricity sector: power stations were, of course, visible interventions, initially located in cities, often along riverbanks and aligned with the burgeoning industries which had the greatest demand for energy. In the period immediately following nationalisation, power station design and development followed the brick clad approach epitomised by Bankside and Battersea. It was an approach that aligned with the conservative agenda of the BEA Chief Engineer[x] at the time and was perpetuated by the traditionalist mindset of the Royal Fine Art Commission, by whom all new designs were reviewed.[xi] Conscious shifts in architectural style emerged under the influence of the *Enquiry into Economy in the Construction of Power Stations,*[xii] a report which advocated the experimentation of new building techniques in the interests of economy, in addition to the integration of "architects as equal partners in the design team of each new power station".[xiii]

A number of factors propelled the further integration of architects and landscape architects in the design of major energy infrastructure. Firstly, the footprints of conventional (coal, oil, gas) generating stations increased in parallel with reactor outputs in order to meet burgeoning demands. Secondly, the development and implementation of atomic energy gained pace as the United Kingdom Atomic Energy Authority (UKAEA), established in 1954 to coordinate national nuclear research and development for both civil and defence purposes,[xiv] commissioned its first 50MWe prototype reactor, marking the beginning of the MAGNOX programme. MAGNOX, named after the magnesium alloy used in fuel rods, was the world's commercial nuclear power programme and is bookmarked by the opening of Calder Hall, Cumbria, 1956 and concluded with the commissioning of Wylfa, Anglesey, in 1969.

Nuclear power presented new opportunities for standardisation in the electricity industry. Initially, reactor designs were developed competitively between four industry consortia.[xv] The close working of consortia under turnkey contracts and vested interest at a national level from the UKAEA meant that "nuclear power stations were planned and built by groups of manufacturers set up to do the job."[xvi]

Initial invitations from the Government to architects and landscape architects requested for design proposals to be made for a reactor on an unknown site, indicating the desire for a standard solution.[xvii] Prominent landscape architect of the period, Sylvia Crowe, pointed out that "although [the reactors] have the same technical requirements, [each] is in a quite different type of landscape, which must affect they type of building which will best fit into it."[xviii] Her concerns were upheld and resulted in a programme of 9 unique power stations in the UK, designed by collaborations between some of the leading architects and landscape architects of the period. All of which are documented in a publicity poster dated 1969. Although sporting a similar flame orange house colour of the CEGB, the poster was published by the UKAEA rather than the Electricity Board.

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Poster produced by the UKAEA in 1969 to publicise and promote the near completion of the MAGNOX programme and present the advances made in reactor output in the second programme.

Source: UKAEA (1969)

The intentions of the UKAEA publication were manifold; demonstrating significant engineering achievement, easing public perception of nuclear energy and publicising a product intended for international export. In addition to the 9 UK reactors, a further two reactors were supplied to Italy and Japan. Initial hopes were for the programme to be distributed across the West, but demand for exports fell significantly short of expectations.[xix] [xx]

As the last station to be built as part of the first programme of nuclear power stations in 1969, Wylfa was arguably the most considered and successful ensemble of engineering and landscape design. Comparatively, Crowe's involvement with Trawsfynydd (1965), set in the Snowdonia National Park, received greater attention as a consequence of its setting and the designs by notable architect, Basil Spence. Signage at stations conformed to the CEGBs graphic identity standards, however the stations themselves were specifically designed to capture the unique composition of technology and landscape: Their identity is product of architectural and landscape design rather than graphic branding. Their legacy in this form will be the slow and careful, literal and metaphorical, dismantling of concrete and post-war optimism that is the process of decommissioning.

Trawsfynned, Snowdonia National Park (1965)
Architect: Basil Spence. Landscape: Sylvia Crowe

Wylfa, Isle of Anglesey (1969)
Architect: Farmer and Dark. Landscape: Sylvia Crowe

Trawfynned received great attention for its positioning in the Snowdonian National Park and as a result of Basil Spence's involvement, however Wylfa was much more complex in engineering terms as a result of its 1180MW reactors and as the second station to install the reactors and steam generators in pre-stressed concrete vessels.

Source: Author's own.

In the creation and construction of power stations under the auspices of the CEGB, it was said that remarkably collaborative and good relations across design and engineering disciplines influenced design standards across the industry.[xxi] Perhaps this is where the legacy of the CEGB lies. Not in Guyatt's seemingly forgotten flame orange symbol, but in the extension of good design practices from architecture to a house style. Unlike British Rail, whose legacy and identity is captured by a *Corporate Identity Manual*, with glimpses of its past widespread existence remaining in parts of the rail network, the legacy of the CEGB is rooted in the concrete and landscapes brought to life through multi-disciplinary collaboration. And more solemnly, in the lasting traces of the technological progress they will leave behind.

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viii Wainwright, 1964, Designing for Power. Design Journal 224. p47.
ix Wainwright, 1964, Designing for Power. Design Journal 224. p47.
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xx Wearne S H & Bird R H, revised 2017, UK Experience of Consortia Engineering for Nuclear Power Stations, School of Mechanical, Aerospace & Civil Engineering and Dalton Nuclear Institute, University of Manchester, p5.
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