

PUBLIC SPACE AND THE ROLE OF THE ARCHITECT

London Modernist Case Study Briefing

(c. 2016 FABE Research Team, University of Westminster)

SOUTH BANK ARTS CENTRE



CONTENTS

1. CHRONOLOGY	3
2. POLICY AND IDEOLOGY	4
3. AGENTS	6
4. BRIEF	8
5. DESIGN	10
6. MATERIALS/ CONSTRUCTION	14
7. RECEPTION	16
BIBLIOGRAPHY	19

PROJECT INFORMATION

Case Study: The South Bank Arts Centre (Hayward Gallery, Queen Elizabeth Hall, and the Purcell Room), Belvedere Road, London SE1 8XX

Dates: 1960 - 1968 (Queen Elizabeth Hall and Purcell Room opened March 1967; Hayward Gallery opened October 1968)

Architects: Norman Engleback (lead architect), E.J. Blyth, J.A. Roberts, W.J. Sutherland, Ron Herron, Warren Chalk, Dennis Crompton, John Attenborough, Bryn Jones (Hubert Bennett was the Architect to the GLC at the time.)

Client: The London County Council and the Arts Council

Contractors: Higgs and Hill Ltd., with Ove Arup & Partners as structural engineers and over 100 sub-contractors.

Financing: London County Council (public funding)

Site area: 21 acre site (Hayward Gallery ~ 20,000 sq ft. QEH ~ 13,000 sq ft)

Tender price: Quoted £3.7 million (including the refurbishment of the Royal Festival Hall), actual approximately £7 million, of which £800,000 for the Hayward Gallery.

1. CHRONOLOGY

- 1943 Patrick Abercrombie and J.H. Forshaw identified the South Bank as a comprehensive development area in the County of London Plan (1943).
- 1948 Labour Government's Clement Attlee announced Festival of Britain as 'tonic to the nation'.
- 1949 Construction began on the Royal Festival Hall and the Queen's Walk, a public boulevard and embankment extending from the County Hall to Waterloo Bridge.
- 1951 Festival of Britain - Royal Festival Hall inaugurated.
- 1953 LCC approved a masterplan of the South Bank to create permanent developments in what was previously the Festival area.
- 1956 The first scheme for the South Bank Arts Centre published.
- 1957 Initial designs by Norman Engleback's LCC team completed, with the scheme largely fixed as it would later be built.
- 1958 Begun in 1956, the National Film Theatre opened.
- 1960 The designs for the scheme agreed internally. Ron Herron and Warren Chalk transferred to the project from the LCC Schools Division.
- 1961 On 23rd March, the LCC announced detailed design plans for the new £4 million arts centre on the South Bank.
- 1962 Works on the extension of the Royal Festival Hall began.
- 1963 The Shell Centre opened. Construction on the Hayward Gallery and on the Queen Elizabeth Hall and Purcell Room began.
- 1965 The Royal Festival Hall reopened to the public. On 1 April the Greater London Council (GLC) replaced the London County Council.
- 1967 On the 1st and 3rd March, the Queen Elizabeth Hall and the Purcell Room opened to the public.
- 1968 The Hayward Gallery opened by the Queen on 9 July.
- 1977 National Theatre opened; Jubilee Gardens opened.

- 1983 GLC introduced the 'open foyer' policy. The foyers of the Royal Festival Hall were opened to the public all day, seven days a week, with free exhibitions, lunchtime concerts, evening jazz performances, shops, bars and buffets.
- 1985 Thatcher government abolished the GLC, effective 1 July 1986.
- 1994 Allies and Morrison (architects) refurbishment of the Royal Festival Hall. Competition announced for the refurbishment of the 1960s buildings. Richard Rogers' 'crystal palace' wins. Not built.
- 1998 A new development strategy announced for the South Bank.
- 1999 Rick Mather appointed to produce a masterplan for the South Bank. British Film Institute opened the IMAX cinema inside the Waterloo roundabout. Completion of the demolition of concrete walkway on the south side of the Royal Festival Hall. London Eye and the Jubilee Line extension opened. Greater London Authority Act 1999 created the GLA.
- 2000 Draft masterplan for the regeneration of the South Bank was published.
- 2005 RFH closed for Allies and Morrison refurbishment.
- 2007 RFH re-opened.
- 2014 A third set of new plans announced for the South Bank: £120 million refurbishment and extension of the South Bank Arts Centre by Feilden Clegg Bradley. Ongoing.

2. POLICY AND IDEOLOGY

2a) Planning policy in London

Plans for the South Bank Arts Centre site date back to the early interwar period. However, its development has its roots in the *Town and Country Planning Act* of 1947. Among the Act's major innovations, three are particularly important for the South Bank. First, to simplify planning jurisdictions by reducing the number of planning authorities from 1441 to 145 (Ward 2004, 100), with each of the new local planning authorities to prepare a twenty-year development plan. The second innovation was to make compulsory purchase a much simpler task. This meant that the government had much more power to purchase land for state development, making possible many of the ideas about comprehensive redevelopment from *The County of London Plan* in 1943, and *The Greater London Plan* in 1944. Thirdly, the Act gave planners for the first time powers to refuse proposed developments, to suggest amendments, and to enforce those rulings. According to Ward (2004, 101), the Act shifted planning to a discourse around the public interest, "to think of land more as a neutral platform for activities and buildings than as a source of private gain and object of speculation".

The Town and Country Planning Act of 1944 had within it a stipulation for 'reconstruction areas', whereby a planning authority could designate an area to work on 'so as to deal comprehensively with blitzed and blighted areas' (CRC Archives, Edinburgh). With the improvement of the compulsory purchasing from 1947, in 1951, *The Administrative County of London Plan* identified over 100 areas with the capital that would require redevelopment, and proposed to start with eight. They were the City of London, Stepney / Poplar, Bermondsey, South Bank, Elephant and Castle, Bunhill Fields, Lewisham Clock Tower and Woolwich. Rebranded "Comprehensive Development Areas", these eight sites would be redeveloped by the LCC, which was then able to choose the extent to which a development was public or private. In the redevelopment of Elephant and Castle, for example, the LCC decided that the masterplan would be produced "publicly", i.e. by their own Architecture Department, but that some of the commissions for new buildings could be awarded to private practices. On the South Bank, however, a smaller development, all the new buildings and their external areas were produced "publicly", that is, by the LCC itself.

Also innovative was the consideration of transport, open spaces, circulation and landscape as integrated systems within the eight London CDAs. This enabled the public and private architects for the South Bank, Elephant and Castle, and the City of London (primarily in the New Barbican) to explore the separation of pedestrians and traffic both as site-specific responses, and parts of a potentially London-wide system. Where Stepney/Poplar was an exemplar of separation through the neighbourhood precinct model (see Johnson-Marshall 1956, 146), the South Bank, Elephant and Castle and New Barbican kept pedestrians and traffic together but separate, on different levels, with pedestrians moving above the roads on their own walkway system. Although designs were finalised for the buildings on the South Bank site between 1960 and 1962, when work began, the concept for the site is twenty years older.

2b) Political parties

Local Authority Politics

From 1937 to 1965 the London Metropolitan Borough of Lambeth was controlled by Labour. In 1965, a new constituency was created that incorporated the Metropolitan Borough of Lambeth with parts of the Metropolitan Borough of Wandsworth. In the first elections of the newly established GLC on 7 May 1964, Labour was elected in Lambeth. In 1968, the vote turned to the Conservative, then back to Labour in 1971.

Municipal Politics

The LCC from 1955 – 1965 was dominated by the Labour party. The first GLC government elected in 1964, taking power on 1 April 1965, was also Labour.

GLC

1964 - Labour

1967 - Conservative

1970 - Conservative

1973 - Labour

1977 - Conservative

1981 - Labour

1985 - Thatcher government abolishes the GLC effective 1 July 1986

Greater London Authority (established in GLA Act 1999)

Ken Livingstone (Labour) 4 May 2000 - 4 May 2008

Boris Johnson (Conservative) 4 May 2008 - Present

State Politics

Winston Churchill (Conservative) 10 May, 1940 – 26 July, 1945

Clement Atlee (Labour) 26 July, 1945 – 26 October, 1951

Winston Churchill (Conservative) 26 October, 1951 – 6 April, 1955

Anthony Eden (Conservative) 6 April, 1955 - 10 January 1957

Harold Macmillan (Conservative) 10 January 1957 – 18 October 1963

Alec Douglas-Home (Conservative) 19 October 1963 – 16 October 1964

Harold Wilson (Labour) 16 October 1964 – 19 June 1970

Edward Heath (Conservative) 19 June 1970 – 4 March 1974

Harold Wilson (Labour) 4 March 1974 – 5 April 1976

James Callaghan (Labour) 5 April 1976 – 4 May 1979

Margaret Thatcher (Conservative) 4 May 1979 – 28 November 1990

3. AGENTS

3a) Client

The client was the London County Council, later the Greater London Council, but the brief was also developed for the Arts Council of Great Britain. The Arts Council had a permanent collection, but also a requirement to host and tour national and international art exhibitions throughout the country. With a purpose-built gallery on the South Bank, they could consolidate and show their collections, and store touring exhibitions.

As with the redevelopment of Elephant and Castle, the South Bank Arts Centre was both commissioned and designed by the LCC. The client/architect relationship is therefore exceptional by today's standards, and reproduces that found in the Elephant and Castle case study:

The LCC was the client, and the LCC's Architecture Department was required to deliver a large number of architectural and urban projects on site. The Department had 3000 people working in 15 divisions, in what its then head, Hugh Bennett, referred to as a 'commonwealth of divisions' (Bennett 1970, 8).

The official aims of the Department were:

1. to achieve a high standard of architectural quality and value for money in terms of professional fees and building costs;

2. to carry out the work within the programmed timetable;
3. on the statutory side, to produce controls which would provide adequate safeguards with facilities for experiment and the use of new methods and materials.

On the one hand, this represents a normative and unsurprising focus on fiscal responsibility. What is surprising is the equally important focus on 'experiment and the use of new methods and materials', and is key to the development of innovative urban and architectural typologies like Elephant and Castle and the Southbank Centre, some of which were successful; some of which weren't.

A still radical horizontal working structure was initiated by John Forshaw in the 1940s:

1. to have high quality staff competent and willing to work towards achieving the aims, using specialists wherever appropriate, organised on a group basis;
2. to have a minimum of levels of control between the departmental head and the individual groups;
3. to delegate to the latter within a broad framework of standardisation and rationalisation of procedures, freedom to manage the design and execute the work included in the building programmes referred to the department.

This was not met with unqualified approval. H. Brockman, architectural correspondent of the *Financial Times*, noted that "[i]n the case of highly specialised public buildings of prestige value such as [the South Bank Arts Centre], the mark of individual inspiration is essential to the creation of consistent character and detailing throughout" (in Mullins 2007: 93).

At the same time that standardisation is ensured across the 3000 staff, there is an explicit desire for institutionalising exceptions to that standardisation. Minimum levels of control may have been an economic concern - to cut out middle managers and speed up the production process, but the expectation was that such a system would also produce innovation. The emphasis on delegation allowed projects to move ahead independently, without architects having to constantly refer upwards. As Bennett wrote: "a straightforward project which does not meet difficulties could theoretically be progressed by the Group Architect virtually without reference to higher authority. Each team is intended to resemble a small private practice" (ibid. 9).

In part, the heavy involvement of the state in the form of municipal government was the result of the on-going restriction of building licenses in the UK, a holdover from the war. This limited private development of the South Bank in the post-war era as much as the largely public ownership of the site for the Festival of Britain and central government's post-festival plans.

3b) Architect

In the case of the South Bank Arts Centre, historians vary on the origin of the design ideas. Officially, Hugh Bennett, as Architect to the LCC at the time, was named as author of the buildings, but in fact Norman Engleback was appointed by Leslie Martin, Bennett's predecessor,

to lead the Special Works group that designed the three buildings.

'Engleback joined the LCC architects' department in 1952 and was quickly promoted by Leslie Martin, who became Architect to the LCC in 1953. Throughout his career, Martin developed his ideas through younger collaborators, and Engleback was the first of these to hold a permanent post. He was soon joined by John Attenborough and Bryn Jones as his assistants. Together the team designed the National Sports Centre in Crystal Palace, which opened in 1964, the central feature of the LCC's regeneration of the Crystal Palace.

'For the extensions to the Royal Festival Hall in 1964, it was Engleback who moved the main entrance to the river frontage, after Robert Maxwell produced new elevations, and Alan Forrest suggested broad walkways, since most people arrived at the RFH from Waterloo station or by crossing the Thames bridges at that level. It had always been intended that the concert venue should have a second, smaller auditorium, but this had been omitted in the haste to open in time for the Festival of Britain in 1951.

'First, however, Engleback had to design the National Film Theatre. The underside of Waterloo Bridge was the only space available, and Engleback's broad auditorium was constructed in only 15 months.

'His team developed a reputation for by-passing bureaucracy and getting things done. The noisy location informed the heavy concrete treatment of the South Bank Arts Centre, for which Attenborough, Warren Chalk and Ron Herron provided the detailing. But Engleback was also part of the local authority culture of efficient and experimental building process and prefabrication, which are as much a part of the South Bank as the marble floor and heavy metal doors of its main foyers. The concrete is also of the highest quality.

'When Hubert Bennett, Leslie Martin's successor as Architect to the LCC in 1956, saw Engleback's scheme for the first time, he demanded its withdrawal. Engleback and his team offered their resignations, but Isaac Hayward, leader of the LCC, was anxious to complete the project during his term of office, and Bennett had to back down. For as long as Bennett remained in charge, however, there was no further promotion for Engleback, although he worked extensively on expansion schemes for Thamesmead, Hastings and Andover. He was later a founder of the Indolent Tendency, a group that took early retirement rather than witness the decline of the Greater London Council (which had replaced the LCC in 1965) under the Thatcher government (edited version of Norma Engleback's obituary, *The Guardian*, December 15, 2015 by Elain Harwood: <https://www.theguardian.com/artanddesign/2015/dec/15/norman-engleback>).

4. BRIEF

The South Bank Comprehensive Development Area (CDA) in the 1943 *County of London Plan* by Abercrombie and Forshaw was one of eight such CDAs identified in London. Prior to this, there were significant land purchases on the South Bank by the LCC between 1934 and 1940,

led at that time by Herbert Morrison. With the interwar rebuilding of Waterloo Bridge in London, and the failed attempt to transform the Hungerford rail bridge into a roadway, Morrison was free to create plans for a south bank site between Waterloo and Hungerford Bridge (Academy Editions 1994: 6). These included plans by William Goddesmith (1935), William Holden (1948), and Gordon Cullen (1949) (Wall et al. 2012: 8; Academy Editions 1994: 6).

It is one of the great anomalies of the capital that while the river, from Westminster eastwards, is lined on the north side with magnificent building and possesses a spacious and attractive embankment road, the corresponding south bank, excepting St Thomas' Hospital and the County Hall, should present a depressing, semi derelict appearance, lacking any sense of that dignity and order appropriate to its location at the centre of London and fronting onto the great waterway.

[The South Bank]...might well include a great cultural centre, embracing, amongst other features, a modern theatre, a large concert hall and the headquarters of various organisations. (Abercrombie and Forshaw, *County of London Plan*, 1943)

London had been without one of its major concert halls since the Queen's Hall was bombed in 1941. The only halls remaining were the Wigmore Hall (always under threat) and the Royal Albert Hall. Charles Holden was therefore commissioned by the LCC to prepare a proposal for the South Bank, envisioning a National Theatre and concert hall between the two bridges, and a promenade where their frontages would be determined by a line known as the 'Holden line'. There was at that time a collective political will to invest in public institutions, as part of the national reconstruction and social redirection that was begun after the Second World War.

The Festival of Britain (1951) brought about the complete transformation of the site through the demolition of the existing urban fabric, and the creation of structures and landscaping for exhibitions and entertainment. Before the Festival, the site was covered with docks, warehouses, breweries, a timber yard and some housing. Given the speed of the preparations for the Festival (it was announced in 1948 by then Prime Minister Clement Attlee), the Holden Plan for the South Bank, designed in-house at the LCC, was put on hold. Instead, the head of the LCC architecture department, Robert Hogg Matthew, along with deputy architect Leslie Martin, worked on the Royal Festival Hall, in an effort to demonstrate to the nation the foresight and capacity of the LCC Architecture Department (Harwood 2014).

The success in delivering the Royal Festival Hall had a bearing on the internal conflicts about the role of the architect in the LCC. During the design of the Royal Festival Hall, the responsibility for Housing had been removed from the LCC Architecture Department and handed to the LCC Valuer's Department (in charge of site acquisition and management) (Harwood 2014). Following the success of the Royal Festival Hall design within such a short timeframe, LCC Housing was moved back to the Architecture Department in 1950 (ibid.). The original intention for the Royal Festival Hall was to have a large and a small auditorium, as well as an art gallery (Mullins 2007, p. 70). Given the time constraints of the build, however, only the large auditorium was completed in time, and the small concert hall on the Belvedere Road frontage was shelved.

The idea was to contribute one permanent building to the festival and at the end of it remove the temporary structures, and build to the Holden plan, but in the end the Holden plan was not developed. Instead, between 1952 and 1953, Graeme Shankland, an Assistant Group Planning Officer within the Planning Division at the LCC, detailed a plan for the South Bank that included an arts complex and conference centre, as well as a hotel, air terminal, restaurants, and a helipad at Waterloo station. Shankland had also been a planner on Elephant and Castle, and was the first to envision an extensive system of raised circulation for pedestrians, though some bridges and pedestrian walks were already in place for the Festival of Britain.

The resulting 1955 brief for the South Bank Arts Centre filled the cultural gap left by the destruction of the Queen's Hall during the war (1941), London's only major concert venue, and fulfilled the original intention of building a second smaller concert venue and arts exhibition space within the Royal Festival Hall. The plan to extend the Royal Festival Hall to include a second venue was curtailed by road works that constrained the site on the south end, and by the Underground lines (Northern and Bakerloo lines) that ran underneath. It was then decided that the new additions would have to be built separately from the Royal Festival Hall, and were then allocated to the site the National Theatre was originally intended to occupy.

5. DESIGN

5a) Design intentions

Ambitions were high for the South Bank as a whole. In 1953, Isaac Hayward, then leader of the LCC, claimed that the South Bank would be "one of the best of London's riverside open spaces", and that "day or night, there will always be life and light and movement on the South Bank" (CRC, Edinburgh, GB0237/PJM/LCC/B/1).

In late 1957, Hubert Bennett reaffirmed the importance of consistency of design across the site. He explained that "after careful consideration, the Architect [Bennett] is of the opinion that the three projects, that is the car park, new small hall, and ICA accommodation, cannot be treated as separate entities architecturally but that to secure the best possible treatment of the South Bank they should be regarded together with the existing RFH as a single complex" (in Harwood 2009: 185). Norman Engleback later explained that "in deciding to break down the buildings into their components and expressing them, there was the basis of a solution" (1967: 24), though not the solution Bennett had envisaged, which was to have been much more deferential towards the Modernism of the Royal Festival Hall.

The broader context of post-war reconstruction and the debates within Modernism inevitably had a significant impact on the evolution of the South Bank Arts Centre design. The Modernisms of Sweden and Brazil were seen as heralding 'the emergence of new regional variants determined by local climate and culture, marking the next stage in the evolution of the Modern Movement' (Bullock 2002: 32). England's 'regional modernism' was set out in the *Architectural Review* in 1944: "We propound a simple thesis: That England has a traditional way of seeing things in Picturesque theory and practice" (Bullock 2002: 35). Instead of central control and order,

“English planners were now to learn from Picturesque theory to develop an approach to rebuilding London that would acknowledge diversity and difference, in a manner fitting to democracy, to make a virtue of London’s existing contrasts” (Bullock 2002: 35).

The British MARS (Modern Architecture Research) Group, founded in 1933 and affiliated with CIAM, called for a more humanist approach post-war that would be “less dogmatic and which recognised the full range of human needs” (ibid: 36). This echoed calls from Siegfried Gideon for a ‘New Monumentality’ – an architecture that “could go beyond utilitarian issues to address the civic and spiritual needs of society” (ibid: 42). In terms of post-war architecture, the Royal Festival Hall was the first public building of significance to be built in Britain – a test of the New Monumentality, and the first step in realising the *County of London Plan*’s cultural centre on the South Bank (ibid.: 61): “What seems to have caught the imagination of critics and public alike was the opportunity to experience for the first time an urban landscape that was self-consciously modern” (Bullock 2002: 75). All the architects who worked on the South Bank Arts Centre between 1956 and 1962 had experienced the Festival of Britain, and the growing debate about the future of architectural Modernism that it provoked in England.

There was a counter-vision to the New Humanism as England’s architectural future, however: the New Brutalism. In 1955, *Architectural Design*, the journal of the British avant-garde, published a statement by the architects of the Economist Buildings, Alison and Peter Smithson, in which they aligned themselves with Mies van der Rohe and the Le Corbusier ‘of *béton brut* and the *Unité*’ (Bullock 2002: 95). They held to the earlier Modernist “truth to materials”, and rejected the cosier Modernism of the Festival of Britain, even though the Smithsons worked at the LCC from 1949-1950. From the second half of the 1950s, the LCC Architects’ Department had both factions in it, New Humanists and New Brutalists, the first seeing architecture as the servant of society, the second as the transformer of society (Bullock 2002: 102), the first seeing high art as educational, the second recognising no difference between high and low art:

These divisions led to an identification ... of political values with architectural values. The New Humanism and the enthusiasm for Swedish architecture was happily attacked as the ‘People’s architecture’, the architecture of social realism and hard-line Communism...[some architects were members of the Communist Party]... Equally, this led to counter-charges that those opposed to the New Humanism were arrogant bourgeois revisionists or mere ‘formalists’, self indulgently playing with architectural forms devoid of any social meaning. (Bullock 2002, p.103)

As an example of the New Brutalism, the Smithsons’ Golden Lane Estate entry was contradictory. On the one hand it was supposed to re-establish for working class London “the vital relationship between the house and the street...children run about..., people stop and talk, dismantled vehicles are parked...: you know the milkman, you are outside your house in your street.” (Smithsons, “An Urban Project”, AYB, 5, 1953, pp.48-55). On the other, it was derived from Corbusier, using “as found” materials unrelated to working class domestic architecture (e.g. vitreous enamel wall panels and reinforced concrete), and categorically repudiating the ‘People’s Architecture’ of the left-wing faction.

Many of the architects working with Norman Engleback were of the Smithsons' generation, and were influenced as much by them as they were by the debates about the Picturesque, Townscape and the New Monumentality. The South Bank Centre's powerful abstract forms in bare concrete were clearly informed by the Brutalist agenda, while the Picturesque is evident in the way in which the buildings sit in an artificial landscape, with no attempt made to create a ceremonial or axial approach, instead unfolding as one walks through them.

In addition, there was a long-standing interest in the use of walkways as a means of separating the circulation of pedestrians and cars. Many commentators (including the critic Charles Jencks writing at the time) suggest this was influenced by the work of Alison and Peter Smithson in their Sheffield University submission in 1952, and their Berlin Hauptstadt project from 1958. This may have been a reference for some of the architects working on the scheme, but pedestrian bridges had been used already during the Festival of Britain (1951) (Academy Editions 1994: 7), and in archival notes from earlier proposals for the site, dating from 1952-53, there is much discussion about raised platform levels (CRC Archives, Edinburgh). This points to perhaps a broader societal notion around the question of circulation, movement in the city, and the appropriate design response for an imagined future. As Engleback remarked, "these terraces create the basis of a pedestrian network which is bound, in the future, to move into most of the central area activities" (Arup 1967: 24). More practically, raised circulation was cheaper than underground parking. Harwood notes that in October 1957 "it was clear that excavating an underground park for 445 cars, seen as a minimum provision for South Bank audiences, was too difficult and expensive" (Harwood 2009: 184). The solution was to raise the whole programme to the level of the existing Festival Terraces, creating space below for parking.

Importantly, Engleback had envisioned the South Bank Centre's public spaces as animated by a series of smaller scale insertions – a programming it would have to wait for till the end of the 20th century. "They said the South Bank couldn't have all the cafes and bars, shops, private galleries and artists' studios we'd dreamed of weaving through the complex, because these small enterprises wouldn't have been able to pay the going rent. Of course they couldn't; so they never came." 'They' were "estates officers, valuers, those sorts of chaps" (Engleback 2015). This stood in direct opposition to "The idea at the time ...that people deserved the best, and after the war and austerity, they jolly well did" (ibid).

5b) Design provenance

The raised walkways have a complicated history, and there are many versions. Charles Jencks in the *Architectural Review* (1968) likened the design to the Smithsons' earlier 1952 raised walkway design for Sheffield University. Warren Chalk, Ron Herron and Dennis Crompton, all of whom would form part of the influential group Archigram, are often cited as influencing the design of the South Bank Arts Centre. They have said the same thing themselves. In 1967, Chalk wrote that 'at the time it was designed, the architects thought they had something to say, and said it consistently: through the mixed vocabulary of the building came the message of the city as a single building' (Chalk in Harwood 2009: 189). In a 1967 article in *Architectural Design*,

Chalk cited the Smithsons' 1957 Berlin Hauptstadt competition entry with its raised pedestrian network as a direct influence (ibid: 188).

However, at the same time as the Smithsons submitted their plans for the Sheffield University project, Leslie Martin's plan for the South Bank was announced, with detailed design by Graeme Shankland. Included in the notes from a press conference from 15 October 1953, Isaac Hayward noted: "[m]any features of the plan have related uses and they should be of considerable assistance and value to one another. This relationship is in fact recognised and strengthened in a practical way in the plan by the proposed links between buildings, often bridging the roads between them' (Centre for Research Collections (CRC), Edinburgh, GB0237/PJM/LCC/B/1).

The 'walkways' were envisioned not only as instrumental pedestrian transportation, but also as open spaces for the public. In 1960, Freda Corbet, the Chairman of the LCC General Purpose Committee noted that "the upper terraces would be extended to form a continuous landscaped pedestrian promenade ... in a way fitting to the noble site" (Harwood 2014: 191). Equally, in a release on the 6 July 1962 from the LCC Press Bureau, the LCC stated:

Upper level terraces will connect the Royal Festival Hall, the Concert Hall and Exhibition Gallery and give access to Waterloo Bridge, Hungerford footbridge and Waterloo station free from vehicular traffic. These terraces will add to the open space available to the public and for a continuous pedestrian promenade.

Terraces at still higher level (over the lower level of the exhibition gallery and the foyer of the small concert hall) will provide a secondary access from Waterloo Bridge to the South Bank, and spacious observation and seating areas away from the more busy lower levels. (CRC, Edinburgh, GB0237/PJM/LCC/B/1)

The initial plans for the South Bank Arts Centre were completed in 1957, with final plans accepted by Lambeth County Council in 1959, with the decision to include walkways and expanded terraces already taken. Chalk, Herron and Crompton didn't join Engleback's team until early 1960. On the other hand, Sadler suggests that this "first chunk in a fantasy-brutalist multilevel city" (Sadler 2005: 31) was '[d]esigned by Chalk, Herron, Crompton and John Attenborough for group leader Norman Engleback" (ibid: 32). These aren't necessarily contradictory statements, however. It's one thing to declare the desirability of raised pedestrian walkways. It's another to produce their detailed design.

In a 1966 article in *Arena*, Chalk wrote: "The original basic concept was to produce an anonymous pile, subservient to a series of pedestrian walkways, a sort of Mappin Terrace [the artificial mountain at the London Zoo] for people instead of goats" (ibid: 33.).

However, in 1969, a year after the Hayward opened, Reyner Banham argued that the South Bank Arts Centre "would have looked very much as it does, in all probability, had the *Archigram* connection never come to exist" (in Harwood 2009: 191). This is reinforced by an entry on "LCC Architects" in the Oxford Dictionary of National Biography, which suggests that while Norman

Engleback was assisted by Warren Chalk, Ron Herron and Dennis Crompton, the South Bank owes most of its processes and materials (including the interiors) to Engleback.

5c) Design as built

Reflecting on the location chosen for the arts centre, Engleback wrote, “The site is not an easy one, it is dominated on all three sides by Waterloo Bridge, the Shell offices and the formality of the Royal Festival Hall and it is, moreover, shaped in the form of a wedge, which meant that to achieve a satisfactory relationship with one element would, inevitably, create problems with the other two” (Arup 1967: 24). There was therefore an ambition not only to avoid competing visually with the Royal Festival Hall, but to defer to it: “The assembly of the elements of accommodation designed including those of an art gallery, both substantial in size, required particular care on site. It would have been physically possible to assemble all these elements into a simple formal building, but this would have rivalled the mass of the Royal Festival Hall itself” (ibid.).

Rather than begin with site, context or a consideration of the design intentions of the mass or volume in relation to it, the LCC team began with what was necessary both in terms of size (number of seats), and acoustics, and then worked from those decisions out to the envelope – form follows (programmatic) function. As Engleback recalled: “In writing about the design of the Queen Elizabeth Hall it may seem curious to some that one deals at length with the acoustical problems, right down to the details of absorption and platform design. This is the fundamental basis behind the design as it is now seen on the South Bank. It was designed, so to speak, inside out” (Arup 1967: 23).

5. MATERIALS/ CONSTRUCTION

The Queen Elizabeth Hall is an in situ reinforced concrete box that measures some 154 ft. long, 86 ft. wide and 70ft. high (Arup 1967: 26). The concert hall is a ‘propped cantilever’ with two columns on each side where the cantilever begins carrying 2500 tons each (ibid). The walls are structural (15 inches thick in some parts, and heavily reinforced), and “the walls, ducts and columns have both exposed Cornish granite precast cladding and fair-faced finished externally” (ibid: 27). Inside the concert hall, the stage end and side walls have off-shutter concrete finish, while the resonators at the back, and the internal cladding are of timber. The roof of the concert hall auditorium is again a 15-inch reinforced concrete slab spanning 85 ft. The Purcell Room is also a concrete box and sits underneath the plant room (ducts, air, power, etc. which itself is another concrete box at 55ft. above ground level), and there is a 3 inch air gap between the walls of each to prevent unwanted sound from the plant room entering the Purcell Room (ibid: 28).

Between the roof terrace of the Queen Elizabeth Hall and the upper terrace of the Hayward Gallery is a 90 ft. footbridge. The walkways themselves are 2ft. concrete slabs and are ‘cellular’, “the voids being formed by means of corrugated cardboard boxes” (ibid: 29). These are held up by octagonal mushroom columns, cast in one operation, which are 2 ft. 9 in. in diameter, and

vary in height up to 18 feet. There are two footbridges across Belvedere road that connect into the Shell building offices, one on each side of the Hungerford Bridge, with a temporary walkway connecting the upstream bridge to the downstream side of the Hungerford. All of these construction methods were very innovative, and the level of investment risk was remarkable in a public commission for public buildings.

6. RECEPTION

Contemporaneous trade press

A.J.J. Bartak, 'Structures', *The Arup Journal*, July 1967, pp. 24-31:

The site is not an easy one, it is dominated on all three sides by Waterloo Bridge, the Shell offices ...

"It would have been physically possible to ... (produce) ... a simple formal building, but this would have rivalled the mass of the Royal Festival Hall... In deciding to break down the buildings into their components and expressing them, there was the basis of a solution."

I purposely quote the architect as I consider that these sentences contain the precise statement of this almost impossible task and the basis for his, in my opinion, brilliant solution. (24)

The adoption of the principle of functional fragmentation of the complex resulted in an exciting array of forms and shapes. (24)

There was nothing that was conventional or repetitive, nothing that could be solved by the rule book. It demanded a fresh and imaginative approach in the choice and use of materials, and in creation and application of new construction techniques. (24)

'Art gallery', *The Architects' Journal*, 10 July 1968, pp. 53-64:

In the case of the concert halls this architectural vocabulary has resulted in a relatively simple block, but for the Hayward Gallery, which lacks any large central element to hold the composition together, the result is a confusing arrangement of façades all heavily modelled and overlaid with a bewildering arrangement of ducts and terraces. When seen from a distance, these terraces, staircases and ventilators pile up in a disorderly rather than picturesque confusion. (53)

Externally the main finish is off-the-shutter concrete and precast concrete panels with exposed Cornish granite aggregate. This produces the usual overall grey tone which at present is reasonably acceptable but it is doubtful if this will remain so with the inevitable pattern staining and streaking already taking place. (53)

This colour, with the various slits and apertures in the façades and the general absence of windows, gives the building a disturbing fortress-like quality quite at variance with its use.

Rather than welcoming and attracting visitors, it has that secretive and repelling character that one associates with top security research establishments. (53)

Because of the complicated system of pedestrian terraces that provide access, it is difficult from street level to find the principal entrance...'(53)

The lighting of the internal circulation spaces and stairs is by industrial bulkhead fittings of what can only be described as battleship quality. (53)

[On the natural light on the top galleries:] While this may be technically satisfactory, the inevitable result, seen at its worst in the Queens Gallery, is to produce the effect of being at the bottom of a tank which many people find psychologically disturbing. (53)

An inexcusable omission in the gallery is any kind of café, bar or lounge for visitors. It is incomprehensible that in a new building this should have been overlooked. ... The omission of the facility shows a lack of understanding of the purposes of a gallery and is a fact of that thinking which assumes that works of art are more important than the people who look at them. (56)

[The choice of] exposed concrete carefully finished to show the boarded shuttering has produced an overall effect, both internally and externally, of a harsh and depressing greyness. These new galleries are intended to provide a series of spaces in which the public are encouraged to appreciate and enjoy seeing works of art. This and only this is the criterion by which they must be judged. ... The gallery may perfectly satisfy some questionable technical requirements but in doing so it has lost the very qualities that justify its existence. Will these grey boxes and windy terraces foster a receptive attitude to the warmth of a Matisse or the clarity of a Mondrian? If they do it will be only by contrast. (56)

Perhaps because of the lack of any sense of enclosure on these terraces, the few pieces of sculpture in the modern idiom arranged on them looked uncomfortably like the usual odd pieces of pipes and ductwork so often left behind by contractors on roofs of newly completed buildings. (58)

SBAC South Bank Arts Centre', *The Architectural Review*, July 1968, pp. 14-26:

Coupled with disciplining detailing throughout and the use of one material (in-situ concrete) for all three component parts [Queen Elizabeth Hall, Purcell Room, Hayward Gallery], the overall effect is of a complex labyrinthine unified mass. (16)

By a system of terraces and footbridges, the pedestrian is free to walk from Waterloo station of the bridge to the Festival Hall, the Queen Elizabeth Hall, the Purcell Room and the Hayward Gallery. (16)

Charles Jencks 'Adhocism on the South Bank', *The Architectural Review*, July 1968, pp. 27-30:

...[I]t is necessary to outline the variety of judgments on the South Bank Arts Centre. To begin with a statistical survey, the Queen Elizabeth Hall was voted by forty-six per cent of five hundred engineers as "Britain's Ugliest Building." ... There is no apparent structural logic which engineers would like to find. ... there is no underlying coherence, no visual logic which helps to explain the functional logic. If anything the appearance confuses the function. ... In fact anyone who tries to read off each function separately is completely baffled by the confusion of shapes and ambiguity of forms... Common sense is further annoyed by the dark useless space beneath the circulation deck... And every time there is a change of level, the stairway, instead of turning out and expanding in a gesture of welcome, turns inward and pinches... [T]here is no provision for daytime social activity. The whole complex, especially when the National Theatre is added, will just be one more post-war cultural ghetto. And, to add the final blow, the humanitarians might insist that the project dramatises movement and mechanical equipment rather than art, which is does everything to hide behind a confusing, hostile pile of jagged in-situ sludge.

All this criticism which has occurred, which understandable, is slightly beside the point. ... the architects were not trying to create a building in any conventional sense, but rather a sequence of extended places and events on a route. And where they were trying for a building, it was probably intended to be conventionally ugly. So while the critics may have reacted in the right way, they have drawn the wrong conclusions. (27)

An extreme example ... is the Lincoln centre in New York, which is a wonderful specimen of a closed and moribund aesthetic. ... There is no chance of an accident, much less a planned accident. No so the South Bank scheme, where one can imagine deliberate acts of burlesque. (28)

That this [bricolage] was part of the process which underlay the creation of the South Bank scheme was made clear by one of the designers, who freely admitted that the major parts all came from former sources: the different levels of movement came from the Berlin schemes of 1958; the acoustic geometry from the long, straight halls of the Continent; the exposed concrete and precast slabs from former LCC works; the mushroom columns from Owen Williams; the heavy balustrades from Japan, etc. One could say there is nothing new about this scheme except the whole (which isn't a whole). (29)

In short, judging by the list of credits, the South Bank scheme was put together by semi-autonomous teams of no less than seventeen different specialists. The implications of this are those of the city: it is created by a series of ad hoc forces which reach some kind of political compromise. (30)

The South Bank scheme ... is not meant to be the last word on cultural centres, or even the second to last; for it implies that development extends infinitely backwards and forwards with no final end. Instead of proclaiming some universal tenet about concert halls and art galleries, it avoids all such claims as pretentious, unwarrantable, unscientific. Instead of being ethnocentric, it is ethnofugal. It is non-repeatable, provincial, embedded deeply within a few traditions among many. (30)

John Carter, 'Hayward Art Gallery. Building revisited', *The Architects' Journal*, 3 February 1971, pp. 243-254:

Two and a half years is comparative infancy in the life of a building, but perhaps long enough to show where trouble is likely to come to the fabric. On the whole the place is weathering well. In situ concrete and exposed aggregate panels were accurately and competently done. (254)

[T]here is an imbalance between attention given to the "architecture" (external character, lighting, etc) and to the behind-the-scenes functioning. (254)

Norman Engleback, one of the project architects has said "building forms, difficult in other materials, are perfectly possible in situ concrete...", but this has proved a two-edged freedom. (254)

...[T]he present reviewer has an old-fashioned wish for buildings to speak truthfully, and where apt humanely, of their purpose; to make an art gallery (of all places) look forbidding is really rather a queer aim. (254)

Edward Jones and Christopher Woodward in Sadler 2005, p. 32,

...the raised pedestrian decks and bridges seem both inconvenient and irrelevant on this quiet site, with no through traffic from which pedestrians might need protection. The decks are windy, offering no protection from the weather, and are difficult for the frail or disabled to negotiate.

BIBLIOGRAPHY

Bullock, Nicholas (2002) *Building the Post-War World*. London: Routledge.

Engleback, Norman (1967) *ARUP Journal: South Bank Arts Centre*, July, 20–31.

Engleback, Norman (2015) in “Norman Engleback architect – obituary”, *The Telegraph*, Dec. 27, 2015. <http://www.telegraph.co.uk/news/obituaries/12070662/Norman-Engleback-architect.html>. Accessed Nov. 1, 2016.

Harwood, Elaine and Alan Powers eds. (2006). *Twentieth Century Architecture 6: The Sixties*. London: Paul Hoberton Publishing.

Harwood, Elaine (2015) Norman Engleback obituary. *The Guardian*, December 15, 2015. <https://www.theguardian.com/artanddesign/2015/dec/15/norman-engleback>. Accessed Nov. 1, 2016.

Johnson-Marshall, Percy (1966) *Rebuilding Cities*. Edinburgh: University of Edinburgh Press.

Mullins, Charlotte (2007) *Festival on the River*. London: Penguin Books.

Sadler, S. (2005) *Archigram: Architecture without Architecture*. Cambridge, Mass: MIT Press.

Stamp, Gavin (2001) “The South Bank Site” in *Festival of Britain*, Elaine Harwood and Alan Powers eds. London: Twentieth Century Society, 11-24.

Wall, Christine; Clarke, Linda; McGuire, Charlie and Munoz-Rojas, Olivia (2012) *The art of concrete: building the South Bank Arts Centre*. University of Westminster.

Ward, Stephen (2004) *Planning and Urban Change*. London: Sage Publications Ltd.

Archives

Centre for Research Collections (CRC), Edinburgh