When, in December 2007, Time Out magazine celebrated the National Theatre as one of the seven wonders of London, a significant moment in the rising popularity of the building had occurred. Over the decades since its opening in 1976, Denys Lasdun’s building, listed Grade II* in 1994, has come to be seen as a London landmark, and a favourite of theatre-goers.

The building has served the NT company well. The innovations of its founders and architect – the amplenness of the foyers, the idea that theatre doesn’t start or finish with the rise and fall of the curtain – have been triumphantly borne out.

With its Southbank neighbours to the west of Waterloo Bridge, the NT was an early inhabitant of an area that, thirty years later, has become one of the world’s major cultural quarters. The river walk from the Eye to the Design Museum now teems with life - and, as they pass the National, we do our best to encourage them in. The Travelex £10 seasons and now Sunday opening bear out the theatre’s 1976 slogan, “The New National Theatre is Yours”.

Greatly helped by the Arts Council, the NT has looked after the building, with a major refurbishment in the nineties, and a yearly spend of some £2 million on fabric, infrastructure and equipment. Board and management are united in feeling a responsibility to maintain the building in good condition for audiences of up to 20,000 per week and for the 1,000 or so permanent staff, actors, directors and designers who work here year-round.

Hence our decision to commission this Conservation Management Plan. As its pages reveal, the more one knows about the building, the more one understands. The Plan will influence ongoing care and maintenance and future capital development will respond to, and be shaped by, its recommendations.

Nick Starr
Executive Director
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Notes on terminology and references:
The National Theatre will also be referred to throughout the document as the NT and the National.
The Conservation Management Plan may be abbreviated to CMP
Previously cited sources will be shortened to (Author, date)
National Theatre terraces from Waterloo Bridge, with St Paul’s in the background (montage). NT Archive 1970s
Introduction

The Purpose and circumstances of the Conservation Management Plan
The National Theatre is an exceptional public building of national and international importance. Since its opening in 1976, the theatre has undergone a number of changes in response to perceived shortcomings or new operational needs. Under the directorship of Nicholas Hytner and Nick Starr, the NT is now approaching a new phase of thinking about its mission, which may include the provision of additional facilities and extensions. Under these circumstances, the need for a reference guide to the qualities of the NT’s architecture, underwritten by both the theatre and by statutory conservation bodies, has become clear.

Commissioned by the NT’s Directors and Trustees, the Conservation Management Plan (CMP) will be used to examine the architectural and cultural significance of the Grade II* listed building, to assess the ways in which past alterations have either contributed to or detracted from that significance, and to provide a framework within which any future changes or repairs to the building should be developed.

The Plan anticipates, but remains independent from, a Future Strategy document that will explore the ways in which the building could respond to its changing context and to the NT’s currently evolving ideas of institutional transparency.

The scope and limitations of the Plan
The CMP is not an academic treatise, nor is it a comprehensive catalogue of every physical aspect of the building. Rather, it is a working document to assist decision-making around the issues of prospective change, necessary repairs and ongoing maintenance. In order to arrive at a concise conservation strategy, however, it is necessary to understand the roots of the architecture.

The scope of the CMP as a whole is to:
- Place the building in its historic architectural context
- Trace the original design intent and development of the design, including the aspirations for the external spaces and relationship to its urban context
- Describe and assess the main changes that have occurred over the years, including urban developments in the surrounding area
- Rate the current fabric in terms of conservation value and significance
- Identify opportunities for improvements, connections or extension to the building
- Provide a clear set of principles and policies to which any such changes must comply.

These principles and policies are framed to:
- Recognise the primacy of Lasdun’s vision for the place and value the hierarchy that distinguishes the treatment of major public spaces, minor public spaces and performers’ and staff areas, and service areas

10  National Theatre Conservation Management Plan 2008  Final Draft
• Permit adaptations and new works which are compatible with the above and which will make the place more effective in its principal intended use as a performing arts centre
• Identify elements which adversely affect the place and which should be modified or removed
• Retain the intended sequence of experiences both day and night as patrons and visitors progress through the space and around the building
• Retain the character and quality of the building and its various elements, including its immediate setting
• Retain the integrity of the original structural systems
• Provide an approach to the conservation of deteriorating fabric
• Draw attention to the need for co-ordination of planning, continuity of conservation advice and good housekeeping procedures
• Outline procedures by which the objectives above may be achieved

**The CMP is divided into the following sections:**

1. Understanding
   - Describes the history and architectural conception of the National Theatre and its building.

2. Significance
   - Summarises the key points of the Understanding section and gives a concise reference guide to the NT’s values.

3. Issues and Opportunities
   - Describes the pressures that currently bear on the building, and the threats these may pose to significance, as well as the ways in which they might be enlisted to reinforce the architecture.

4. Conservation Strategy
   - Analyses all aspects of the building as a series of elements and sets out policies for maintenance, repair and change. The approach to conservation strategy is tailored to different elements of the building according to a stated hierarchy of significance.

   Elements that are considered of high architectural value have specific and detailed policies to guide maintenance, repair, alteration and development; while other areas, such as the interiors of workshops for example, are regarded as spaces in which the ongoing operational requirements of a major producing theatre may take greater precedent.

5. Sources of Information
   - List of Illustrations, Published and unpublished sources, the Statutory Listing Description and South Bank Conservation Area Statement.

6. Appendix
   - Plans - as built and current.
Introduction

The Plan will be revisited every five years and new editions produced in light of any changes that may have taken place to the fabric or management of the building.

Authorship, stakeholder participation and consultation process
The CMP has been commissioned by the National Theatre. Haworth Tompkins Ltd has researched and prepared the Conservation Management Plan with contributions from Dr Barnabas Calder, who has written extensively on Denys Lasdun, and Dr William Fawcett of Cambridge Architectural Research Ltd (CAR Ltd). The plan has been developed in close consultation with the National Theatre directors and staff team, Lambeth Planning Department, English Heritage, the Twentieth Century Society, the South Bank Centre, the South Bank Employers Group and the Lasdun Group, comprising members of the original design team. Advice on the structuring and content of the Plan has been provided by CAR Ltd and David Heath, formerly chief architect of English Heritage.

Ownership of the Plan
The Conservation Management Plan is directed at a wide readership and will be of use and interest to anyone working in and using the building. The Conservation Strategy sections and associated policies will be regularly referred to by all those who take decisions with regard to the fabric, and must be available to designers, consultants and contractors working on the building.
1. Understanding

The foundation of the National Theatre was the product of decades of pressure from a dedicated minority. The first proposal for a theatre to stage serious drama was in 1848, and fundraising and campaigning for a building dedicated to a national theatre continued energetically but with limited success through to the Second World War. The following chapter presents a concise history of the National Theatre and its building on the South Bank, examining the relationship between the broad cultural ambitions of the institution and the development of its architectural form.

The Idea of a National Theatre

The first proposal for a National Theatre was made in 1848 by London publisher Effingham Wilson and found support in a number of leading figures of the day including Charles Dickens, critic Matthew Arnold, and actors Charles Kemble and Sir Henry Irving. Thirty-two years later, Arnold wrote an impassioned plea for subsidised theatre in London, but it was not until 1903 that the first detailed plans for a National Theatre were published by actor/director Harley Granville Barker and critic William Archer.

Circulated privately, ‘A National Theatre: Scheme and Estimates’ covered staff, specimen repertoire, size of company, wages, seating capacity, a subscription scheme and seat prices. Granville Barker followed this guide with a later publication, The Exemplary Theatre (1914), which was presented as a polemic on the cultural ambitions of the theatre and ‘a plea for the recognition of the theatre as an educational force’. It was emphasised that the theatre must serve as its own advertisement, through cultural prominence and broad social reach:

It ‘must impose itself on public notice, not by posters or column advertisements in the newspapers, but by the very fact of its ample, dignified, and liberal existence. It must bulk large in the social and intellectual life of London...It must not even have the air of appealing to a specially literary and cultured class. It must be visibly and unmistakably a popular institution, making a large appeal to the whole community...It will be seen that the Theatre...would become absolutely – the property of the nation.’

W. Archer and H. Granville Barker, London 1907

Granville Barker also stressed that an exemplary theatre should both sustain and extend the dramatic tradition through experimentation, self-appraisal and learning, and these aims were directly invoked in the detailed design proposals put forward by architects Denys Lasdun & Partners in 1967:

The architecture attempts visually and operationally to reflect the pioneer aims of Harley Granville Barker, who conceived the National Theatre as a living organism and an educational force rather than a civic monument.

Denys Lasdun & Partners, Design report 1967

The aspirations articulated in Granville Barker’s two early twentieth-century publications thus became founding principles for the National Theatre, and remain both a characteristic and ongoing ambition for the NT today.
A Site and Architect for the National Theatre

Finding the Money
After decades of campaigning and fundraising, it was the social and political climate of this post-war period that finally enabled the National Theatre to come into being. Politicians of the left and right in the 1940s, '50s and '60s shared a sense of mission: something good had to come out of the war, and the state must organise it, as it had organised the war effort. The main focus was on housing, schools, and university expansion, but it was also incumbent upon local and national government to encourage, subsidise, and even initiate cultural activity.

The pre-war attempts to raise money from the public for a National Theatre, became after 1945 an attempt to secure funding from central and local government through the subsidy provided by the Arts Council, which had developed a powerful and growing role in the national arts. Influential figures such as Lord Cottesloe and Oliver Lyttelton 1st Viscount Chandos, who treated the lobbying of the government as a new form of patronage, also brought their extensive influence to its support.

The 1949 National Theatre Bill offering £1M towards the cost from central government was the first success of this campaign, and was followed in 1961 by the London County Council’s offer to contribute the rest of the cost if the government would release the promised funds. Following new theatre commissions in the two most forward-looking regional cities of the post-war years, Coventry (the Belgrade Theatre) and Nottingham (the Nottingham Playhouse), the LCC was keen to bring about the National Theatre, near to its headquarters in County Hall, as a prominent civic theatre for London.

The commitment made by the LCC and Government to share funding responsibilities for the new theatre had been made on the condition that the theatre would absorb the Royal Shakespeare Company, the Old Vic and Sadler’s Wells, in order to cut subsidy requirements; and in 1962, the South Bank Theatre and Opera House Board was established. When the merger between the RSC and NT was later abandoned, the Governors of the Old Vic agreed to offer their theatre on a five-year lease to the National Theatre Company. The newly established company, with Laurence Olivier as artistic director, defined itself in clear opposition to the RSC’s emphasis on Shakespeare and English drama, aiming instead to offer a broad spectrum of world drama.
A Site and Architect for the National Theatre

Finding the site
Between 1909 and 1942, the ‘Shakespeare Memorial National Theatre’ group had considered sites across London for the theatre, and plans were proposed by a succession of architects including Sir Edwin Lutyens and Cecil Masey, who produced the first designs for a site on the South Bank. Granville Barker had expressed prophetic hopes for a theatre on the South Bank of the Thames as early as 1930, but it was not until 1942 that negotiations with the London County Council led to the acquisition of a new site near to the present location.*

Site History
The twentieth century witnessed great changes in the character of London’s South Bank, pivoted around the destruction wrought by World War II. In the post-war years, new opportunities arose to redefine an area previously dominated by transport and industry, which had flourished following the decline of the pleasure gardens, concert halls and theatres of the seventeenth and eighteenth centuries.

The industrial development during the nineteenth century paralleled a rapidly increasing population density, encouraging outbreaks of chronic disease and cholera epidemics. Slums were gradually cleared in preparation for the construction of Waterloo Station in the 1840s and more intensively following the 1890 Housing of the Working Classes Act, but it was the destruction caused by the Blitz that eradicated the last remaining slum housing and much of the remaining industrial activity.

Bomb-damaged land on the South Bank owned by the London County Council (LCC) became a focus of post-war regeneration. Abercrombie and Forshaw’s Plan of 1943 proposed offices, shops, leisure facilities and open space as well as a theatre, and was followed in 1948 by Charles Holden’s scheme proposing a theatre and concert hall on a site between Hungerford and Waterloo Bridges. The 1948 plan sites the buildings significantly back from the riverfront along what became known as the ‘Holden Line’, which still defines the wide promenade along the Thames despite supercession of the overall plan by the Festival of Britain in 1951.

* For a full history of how the National Theatre came into existence see the ‘Stage by Stage’ chronology exhibited on the NT website: http://www.nationaltheatre.org.uk/9786/stage-by-stage/the-beginning-18481962.html
1. Cuper's Gardens on the site of the NT, c. 1825 - Lambeth Archive

2. Waterloo Bridge looking south c. 1900. The current bridge, designed by Sir Giles Gilbert Scott, was completed in 1942 - Lambeth Archive

3. Descriptive Map of London Poverty, Booth, 1899. Note areas to the south of the NT site, classified as 'very poor, casual, chronic want.'

4. South Bank plan, LCC County of London Plan, 1943

The site facing the river, between County Hall and the Surrey approach to the new Charing Cross Bridge, is about all that one can wish for; a National Theatre could hardly be better placed.

Harley Granville Barker, 1930

5. Festival of Britain, 1951

6. South Bank Centre in the 1960s
The Building

The appointment of Denys Lasdun
Denys Lasdun was selected as architect of the National Theatre at the end of 1963. The theatre’s Building Committee, which was keen to develop an open dialogue with an architect who had no preconceived ideas on theatre architecture, had created a selection procedure in which architects were invited to provide written accounts of their attitude to theatre and proof of architectural ability, but not designs.

A panel of architectural experts appointed by the RIBA selected a long-list of twenty architectural practices, who were invited to interview. The intention was to produce a shortlist of two or three who would produce preliminary designs in discussion with the theatre experts. The twenty selected were almost all well-known practices including Stirling and Gowan, Ernő Goldfinger, the Architects’ Co-Partnership and Howell Killick Partridge & Amis. Lasdun clearly outperformed all the others at interview. Impressed by Lasdun’s stated willingness to learn from the Building Committee 1, and his assertion that ‘the essence of designing a theatre is a spiritual one’ 2, the panel chose Lasdun unanimously and the selection process was terminated.

Scheme development and construction
The firm of Denys Lasdun & Partners was to work on the project for 13 years, steering the scheme through one further change in site and extensive briefing discussions with the Building Committee and the South Bank Board client.

The brief for which Lasdun was appointed proposed a National Theatre and Opera House sited in the area bounded by County Hall, the Shell Centre and Hungerford Bridge. The NTOP would have been sited adjacent to the 1951 Royal Festival Hall, part of the prominent cultural landscape that was developing with the construction of the Hayward Gallery and Queen Elizabeth Hall.

Lasdun’s proposals for this site, published in 1965, were widely met with admiration - but by 1967 budget constrictions led to the removal of the Opera House from the scheme. Proposals were developed for a new, smaller building in the present site in 1967, and construction began in 1969. The concrete shell was complete by 1973, within a year of the scheduled time, but thereafter the oil crisis, labour shortage and strikes of the 1970s slowed the fitting-out process to a crawl. The three theatres opened one at a time, 1976-77, and installation work on the hugely ambitious stage equipment continued after evening performances for some years.

1 The Building Committee was headed by Laurence Olivier, with nine directors (Michael Benthall, Peter Brook, Michel St. Denis, George Devine, John Dexter, Frank Dunlop, Michael Elliott, William Gaskill and Peter Hall); four designers (Roger Furse, Jocelyn Herbert, Sean Kenny, Tanya Moiseiwitsch); a lighting designer (Richard Pilbrow); a manager (Stephen Arlen); and an actor (Robert Stephens). Kenneth Tynan, literary manager of the National Theatre, was also consulted.

2 NT Archives: ‘Denys Lasdun’s National Theatre’
1. Denys Lasdun with Sir Laurence Olivier, 1960s
2. Model of NTOP scheme, 1965
3. NTOP model in elevation showing balance of two volumes
4. Lasdun and Olivier with model of NT, after 1967
5. Denys Lasdun with NT model
6. NTOP model, with Hungerford bridge and the Royal Festival Hall, 1965
The Building

The Building: Design Development
Between the architect’s appointment at the end of 1963 and the proposal of a near-definitive scheme in 1967 came years of discussions and a highly ambitious briefing process guided by the National Theatre Building Committee, under the joint chairmanship of Sir Laurence Olivier and Norman Marshall. This was supported by a Technical Sub-Committee that advised on all aspects of the theatres.

The strong personalities of the Building Committee engaged over a sequence of monthly meetings in a fundamental debate on the nature and needs of theatre. The overwhelming majority of these discussions were dedicated to the design of the largest theatre, and specifically how it was to achieve a successful relationship between actor and audience. The theatrical effects of different seating patterns, different room and stage shapes, and varying scenic capabilities were gone over in great detail, and the Olivier Theatre is the fruit of this lengthy process. The evolution of the brief as recorded by Lasdun in the 1967 proposal is included in the appendix to this document, but a summary of developments reveals an important part of the theatre’s history.

Between 1964 and March 1967, the architects were working towards the NTOP scheme, during which time successive designs and debates surrounding the auditoriums were developed. The initial brief called for a small, experimental space and one large adaptable theatre that could accommodate both an ‘open stage’ and proscenium. By spring 1964 it was concluded that a single theatre could not successfully satisfy both typologies and towards the end of the year the need for a total of three auditoriums was accepted.

The 1965 published scheme for a combined National Theatre and Opera House in front of the Shell Centre was to have had the Theatre to the south next to County Hall, and the Opera House by Hungerford Bridge. Linking the two would have been a cascade of open terraces, presided over by the fly towers of the two complexes. The architecture possessed a monumentality articulated through scale and symmetry, approachable from every side where walkways or stairs met the system of terraces. In ’66, when the Opera House was dropped from the scheme and the theatre moved to the current site adjacent Waterloo Bridge, an architectural re-conception was required. The imposition of a tight budget required cuts all over the building, including the terraces, which were maintained only along the important riverside elevation.

Lasdun however found the new site advantageous in a number of ways. The axial design development of the auditoriums found focus in the new location, and while the exterior language of stratified horizontality remained fundamental, the new building developed a convincing autonomy as well as better integration into the neighbouring Arts complex. The introduction of a more prosaic brick enclosure for the workshops departed from the NTOP scheme in its clear articulation of the hierarchy between the public and private areas of the building.
The Building

The problem of monumentality
The formal expression of the theatre’s architecture in relation to its dominant position within the cityscape clearly articulates its civic importance. However the prominence and scale of the National has sometimes sat uncomfortably between the need to ‘give the institution a suitable monumental and symbolic framework.’ (Curtis) and a contemporary scepticism identified by Lasdun about ‘the permanent housing of institutionalized culture’ and ‘the doubts about architectural form-making’. The National Theatre building both contains and plays upon such conflicts and contradictions.

Lasdun designed one of London’s great post-war landmark buildings, but throughout the design process he sought to reconcile the need for an iconic identity with the democratic, non-institutional ideals of the National as an organisation. The clear views of the building from the north bank and the primacy of its north-west facing elevations indicates a certain monumentality and civic dominance, by which the flytowers become the primary architectural expressions of the performance activities within. The terraces meanwhile are a counterpoint to the commanding presence of the flytowers, and aim to represent the openness and availability of the building as a whole. As ‘a vehicle for addressing rhetoric, size, procession and urban ritual’ (Curtis, 94), the National’s clear hierarchy of forms and axial planning proclaim its stature and singularity – while the stratification of its north-western edges invites a layered and plural relationship to its context.

NT Strategic location - The Triangle
The National Theatre’s siting on the South Bank of the Thames as the river bends towards the City, offers a dual aspect that strategically locates the building at a point from which the two historic cities of London form the urban backdrop to the theatre’s layered terraces:

...it’s at a point in the river....which turns through almost 90 degrees and picks up a panorama of the City of London that stretches from St Paul’s round to Somerset House and on to Hawksmoor’s towers at Westminster Abbey. It’s a magical position...probably the most beautiful site in London.
Denys Lasdun, Building Vistas / 1, The Complete Guide to the National Theatre, 1977

The figurative relationship between these key landmarks was referred to by Lasdun as ‘the triangle’; and the 45° degree axis of the Olivier, the generating element from which the rest of the building was developed, roots the building’s architectural composition in a wider urban symbolism. This axis is reinforced in the architectural progression from the river front to the Olivier Theatre via the ‘anchor’ stair and is the experience around which the front of house was designed. The disposition of the interior foyer spaces and the external expression of their structural relationship thus stems from this geometry and position within the city.

Situating the open theatre in this way [at 45 degrees to the river] involved both a grand gesture and a sculptural response to other points of monumental intensity in the cityscape. The triangular geometry which is felt in every facet and angle of the National Theatre stems, in the long run, from this.
Curtis, ‘94
The dominant elements in the design of the building are the Olivier Theatre auditorium and flytower, posed over the main entrance on a diagonal axis inflected towards Waterloo Bridge. The flytower of the Lyttelton Theatre is a subsidiary element which serves to modulate the scale to that of the neighbouring buildings. Below these elements terraces recede in rhythm from the riverside and continue into the building to form the main foyers from which can be enjoyed the main panorama of the river stretching from St Paul’s along King’s Reach to Somerset House and on to the Palace of Westminster. Outside the terraces extend from the riverside promenade to link up with the existing system of walkways between the Royal Festival Hall and Waterloo Bridge. Higher up they become a ‘fourth’ theatre for events and happenings with the city as a backdrop as well as providing external space for theatre audiences, promenades for the public, places for relaxation for those working in the building and essential fire escape routes. The horizontal elements of the building or ‘strata’ which form these terraces have a diagrid construction giving them richly modeled soffits which continue right into the building.

A Language and a Theme - The Architecture of Denys Lasdun & Partners, RIBA Publications 1976
The Building

This western inflection was also a response to the nature of the South Bank to the east of the site at the time of construction. Apart from the new cultural buildings to the west and Waterloo Bridge itself, the area was largely undeveloped. The public riverside terminated at the NT site with no eastward route, and the land immediately to the south consisted primarily of derelict or obsolete industrial stock and undeveloped wartime bombsites.

Towards an architecture of Urban Landscape

The most significant principle in the architecture of the National Theatre, and in Lasdun’s work as a whole, is that of the idea of ‘architecture as urban landscape’. This had been explored by the architect throughout the 50s and 60s; but it is in the National that the conception of the individual building as an extension of its surroundings is crystallized:

*It is an architecture without facades but with layers of building, like geological strata, connected in such a way that they flow into the surrounding riverscape and city.*

Curtis, AR ’77

The building is considered not simply as an isolated object but as an intrinsic part of its context, so that the principal point of arrival beneath the ‘anchor’ stair on axis is supplemented by a number of other points of penetration into the building – at Waterloo Terrace level from the bridge, or via the circular stair to the Baylis Terrace, where direct access to the Olivier stalls foyer is available. Performing most successfully on the west facing riverside corner, the strata, occupied as terraces and (less effectively) as routes across and around the building, aim to function as raised ground, layered landscapes and elevated streets that connect to the raised walkways of the South Bank Centre.

Contemporary admirers of the building such as William J.R. Curtis have pointed out that whilst the building attempts to ‘graft’ itself to the bridge, the circuitous route between bridge and terrace has undermined the conception of the building as a fluid extension of its surroundings; that ‘despite their hospitable symbolic stance towards the city as a whole, the strata are hard to penetrate’. It is worth noting that designs submitted to the Board in 1967 showed a more generous link to Waterloo steps, as well as a wide ceremonial stair leading to Theatre Avenue where we now find the circular escape stair.
By fusing together archetypes of theatre and landscape it gave shape to an ideal of communal culture in an urban setting and explored the ideal of an open and democratic institution. Needing to combine rhetoric with liberality, monumentality with availability, it showed that it was possible to fuse a modern conception of space with some substructures of the classical tradition.

Curtis '94
The Building

The Fourth Theatre
As extensions of the city and places for gathering and communal events, the terraces and foyers were conceived by Lasdun as the ‘fourth theatre’. The strata, receding on the exterior and cut through in the interior to create soaring triple height spaces, aimed to function as both public stages and urban auditoriums simultaneously, and as Curtis emphasises, are reminiscent of the stepped landscape of early rural theatre, as well as the urban performance settings of street and square:

*The theatre is part of the city, the city part of the theatre. Street and square were the earliest urban settings of drama and there is a return to street theatre when events occur (either planned or spontaneously) on the ‘fourth theatre’ of the strata. As levels of landscape they recall the earliest rural setting theatre – the side of a slope or a bank.*

W.J.R. Curtis, AR '77

The foyers, characterized by vertiginous shifts in scale and changing qualities of natural and low-level artificial light, were conceived as elegant, abstract and largely unadorned spaces, in which the people become the animating elements and decoration. There is a real sense in which Lasdun imagined the human congregation and procession of the audience and the passing public as vital elements of the architectural vocabulary of the NT. The foyers were to be regarded not solely in terms of pure form and light, however sublime, but as places for exploration and discovery, for prospect and refuge, for journeys and destinations. In the 1977 Architectural Review, Girouard’s description of moving through the NT’s interiors meanwhile alludes to both the spatial artificiality of the stage set and to the landscape analogies suggested by the building’s forms:

*One parades up and down through a series of inter-connecting stage sets, striking conscious or unconscious attitudes and watching others do the same. One looks up at people leaning over balconies above one, or down through clefts, along valleys, or into pits, at the people parading below.*

Mark Girouard, AR ’77

Audiences at the time were said to be awed and delighted by the experience of occupying the front of house, in which they were ‘given such sense of being actors contributing to a festive occasion’ (Sir James Richards, Radio 3, 15/10/76) Lasdun also suggested that the patterns of occupation of the theatres and foyers recall the tidal rhythms of the river:

...I want the feeling that the audience – like the tide of the river – flow into the auditoriums and become a community within them. Then the tide ebbs and they come out into the creeks of the small spaces that are made by all these terraces; because they’re not vast terraces, they are very small, human, little places for people to go to. Outside and inside.


It is interesting that Lasdun employed such temporal terminology in imagining the spaces, enlisting the non-permanent and the ephemeral as essential counterpoints to the permanence of the built forms within a hierarchy of elements. In doing so he demonstrated an instinctive understanding that theatre space is by definition a provisional, shifting landscape – a constantly evolving ‘community’ of architecture and human interaction.
One of the fascinating things about the National Theatre is the way it demonstrates how a public building can be designed as a setting for numbers of people ... I know of no other theatre where the audiences are given such a sense of being actors contributing to a festive occasion.

*Sir James Richards, Radio 3, 15/10/76*

The spatial layering observed on the exterior is also felt on the interior. Banks of stairs pass to the upper floors. Volumes open up as many as three levels at a time ... one finds rich sequences of form and space, flowing into each other, opening to admit more light, or closing to give a sense of protection. Elements shift and align in new relationships as one moves about the interiors.

*Colin Amery, The Architectural Review, 1977*
Public – private hierarchies

From the perspective of the north bank and bridge, the north-west elevation is formally defined by the horizontal stratification underpinning the vertical volumes of the flytowers. A pictorial flatness to the elevation is apparent from this distance, achieved by receding the strata so that no shadows are cast on the terrace parapets below. It is clear on approach however that the north-western edge is deeply modeled, with an ambiguous relationship to the layered ground of bridge, walkway and river.

At the National’s north corner, where the strata form narrow terraces for the private realm of administrative offices, the relationship between strata and ground is made distinct and separate. Dominated by imposing raking buttresses, the north elevation re-establishes the layers of building as clearly defined, receding floor plates, cantilevered above a brick-infill volume - a clear contrast to the ambiguous relationship between building and ground at the western corner. Lasdun separated the public and private zones of the north elevation explicitly by the abrupt termination of the public foyer ‘diagrid’ soffit as it meets a double escape stair tower. In 1976 this division was logically underpinned by the termination of the external public realm of river walk and the sharp curvature of the river bank beyond to the wharves and derelict warehouses to the east of the site. Today, with the continuation of the river walk and the straightening of the river bank to accommodate the terraces of the later IBM building (also by Lasdun) the logic is less clear.

The architectural expression given to the differentiation of public and private is stated most definitively however in the brick box of the workshop area, whose elegant but prosaic language is entirely distinct from the ceremonial juxtaposition of the concrete strata and towers. The back of the building proclaims its privacy with an almost unbroken sheer face that turns its back on the theatre as well as offering little to its context to the south. While ‘the riverside dissolves into the richness of its context here a firm line is drawn’ writes William J.R. Curtis of the workshops’ rear wall (Curtis, ‘94 p. 113).

What is clear from Lasdun’s use of brickwork at the southern edge is that the concrete structure of the front of house and auditoriums provides the framework for the ceremonial, public architecture – while the private realm of the workshops and rehearsal rooms is carefully detailed but clearly subservient.
1. National Theatre model, c.1967

2. Junction between workshop block and concrete structure - HTL 2008

3. Workshop block and paintframe with administrative offices and flytower behind - HTL 2008

4. Front of house terraces - HTL 2008
The Building: Structure and Engineering

Lasdun’s use of concrete generated a building whose architectural language is inseparable from its structural system. The National’s Theatre’s concrete structure gives form and enclosure to the main internal spaces and facilitates the language of stratified horizontal planes through the layering of the diagrid. This is a term used by Lasdun to describe the front of house floor slabs, which are characterised by exposed concrete coffered soffits that are oriented to the diagonal axis. Concrete also provided the necessary acoustic separation between the theatres and public spaces through the efficient use of a single material serving both form and surface.

The inter-dependent relationship between architectural and infrastructural structural thinking was emphasised by Flint & Neill in a 1977 article, in which the engineers described the key structural and servicing principles and evolution of the design. ‘The structure of the theatre is essentially the architecture, and its evolution closely followed the development of the enclosures serving the planning needs.’

*Form, space, structure and surface made manifest by the nature of concrete.*
Denys Lasdun

Elements of significance identified by the engineers included the full use made of the vertical support provided by the concrete walls, enabling the introduction of only a few slender columns. In the front of house areas, these were positioned to meet the support requirements for the galleries and roof while permitting maximum parking space below; while columns that support the administrative areas were raked to avoid obstruction to the vehicular access route on Cottesloe Avenue. Coordinated services and systems routes were designed through the structure in order to eliminate the need for ductwork.

A crucial and innovative part of the structural design is the use of post-tensioning technology, which was used to reduce movement and cracking and to provide adequate strength within constricted parts of the structural envelope. Parapets and balustrades are all in-situ post-tensioned construction, and the stability of the entire stratified administration wing is reliant upon the main body of the building through post-tensioning.
1. Olivier Theatre flytower structure, Isometric (Flint and Neill)

2. Administrative offices structure, isometric (Flint & Neill)

3. Movement joints (Flint and Neill)
The Building

Materials and Detailing
The National is perhaps the UK’s pre-eminent 20th-century example of a limited material palette used to maximum architectural effect to express a consistent and beautifully articulated hierarchy of form and surface throughout the building. The primary material elements are the concrete structural members – walls, columns, balustrades and parapets – whose pale grey colour was chosen to rhyme with the stone of Waterloo Bridge, Somerset House and St Paul’s.

The concrete is the dominant vessel for the architectural expression in the building and was almost entirely cast in-situ with an extremely high level of workmanship. In 1977, the client and architects, together with engineers Flint & Neill and contractors Sir Robert McAlpine & Sons, received a Concrete Society Award for Outstanding Merit in the use of concrete. Lasdun later praised McAlpine for the ‘extraordinarily important role’ played by the highly skilled men working on the concrete and shuttering.

The most striking treatment of the concrete is the board-marking used throughout the front of house areas internally and externally – whose horizontally textured surface (re-iterating a sense of sedimentary stratification) is contrasted with the smooth finish of the coffered soffits.

Formwork was sawn Douglas Fir on a six-inch module for most parts of the building, and all boarding is horizontal with the exception of the semi-circular stairs, in which vertical boarding was used to emphasise the points of circulation. These concrete elements are read in conjunction with the diagrid that expresses the axis of the Olivier Theatre and gives human scale and grain to the soaring volumes of the foyers while reinforcing continuity between interior and exterior. Cast into purpose-made GRP moulds, the diagrid has a smooth surface that glows with light reflected from the columns and walls. Along the edges of the workshop block, the rough, bush-hammered treatment of the concrete plinth reinforces the sense of a robust, almost topographical base layer to the brickwork, entirely distinct from the wrought forms of the board marked concrete elements of the public areas.

Slender fenestration in the aluminium-framed windows enables the openings to be read as continuous screens between the stratified floor plates, while their set-back from the bottom edge of the terrace balustrade emphasises the horizontality of the strata. During the day, windows appear dark and recessive and the building’s interior is hard to visually penetrate; as night falls, the boundary between inside and out dissolves as the continuity of the diagrid soffit becomes clearly apparent.

Artificial lighting was also critical in bringing out the warmth and texture of the primary concrete surfaces, particularly through the recessed uplighters that obliquely lit the columns from below. The low, atmospheric lighting reinforced the dramatic atmosphere of the ‘fourth theatre’, creating a sense of mystery and anticipation, as well as moments of intimacy enclosed by concrete that took on a tactile, fur-like quality.
All details were designed to enhance the play of light on surfaces, and to respond to the major geometries and guiding ideas of the design. The strata were accentuated by horizontal wooden imprints, and the coffering of the ceilings was made to articulate the diagonal inflection of the building towards the bridge being detailed so that glazing joints did not interrupt the flow from inside to out.

W. J. R. Curtis, Building Vistas/2, NT Publications 1977
Concentrated light was used to add sparkle and accentuation to secondary elements such as bars, cloakrooms and entrances. Colour was similarly used to support but not compete with the subtle grey of the concrete, enhancing the landscape metaphor through vegetal tones against the ‘rock’ of the primary structure.

Lasdun used a pale grey calcium silicate brick wherever he wished to differentiate secondary or non-loadbearing surfaces, predominantly in the back of house workshop areas. Brickwork is also to be found in the foyer staircase from ground floor to basement level, marking a transitionary zone between the formal space of front of house and the service area of the car park.

Dark Wenge timber was used as a decorative veneer in the public spaces for doors and fascias. Painted timber was used in back of house spaces for doors, partitions and frames.

A dark purple /blue brick paviour was used for internal and external floors at ground level, with a dark mauve wool carpet used in other foyer areas. The earthy tones of concrete and wood against the subtle heathers and golds of the carpets and hessian wall coverings was lifted by the use of polished stainless steel for handrails and signage. No natural stone was used in the project.
5. SEFT lighting at the edge of a staircase soffit - HTL 2008


7. Original timber and hessian bar with mauve carpet, 1970s

8. Wenge and leather window seats - HTL 2008
The Auditoriums

The Theatres
The National’s three theatres have distinct spatial characteristics that recall three principal precedents: that of the classical Greek theatre of Epidauros, from which the Olivier is derived; the proscenium theatres of the seventeenth, eighteenth and nineteenth centuries that to some extent provided a model for the Lyttelton, and the Tudor inn courtyards and Spanish Corrales from which the Cottesloe was later developed.

Following a protracted and complex process of brief development in which the needs of the open and proscenium theatres were debated through design and discussion, the requirement emerged for a theatre consultant to mediate between architect and theatre, and to ‘clarify and establish all the spaces and equipment needed to realise the architect’s conception for the theatres.’

It became clear that the scale of productions and changing repertoire envisaged by the National would require permanent mechanical plant as well as generous rear and side stage storage space for effective changeover between shows. The technical sub-committee, including representatives of the theatre, the architects and the theatre consultants,* worked to develop spatial and infrastructural solutions to the overall theatre forms developed within the Building Committee. Many of the design innovations were truly theatrical ‘firsts’, and the building remains a benchmark for developing technology to offer new production possibilities and bespoke repertory solutions.

Open Stage – The Olivier
The conceptual starting point for the open stage auditorium was a square room with a stage in the corner, which set up a two-directional relationship between stage and audience and an angularity that both excited and concerned the Building Committee. Following the development of the 45-degree axis of the Open theatre, the auditorium adopted a bowl-like configuration with an arc of seating that more directly referenced the precedent of Epidauros.

The great concrete arc of the seating tier grasps the stage with an axial focus emphasised and contained by the steep rake of the seating and by the side banks of seats and ‘jaws’ that sit between the lower and upper tiers. There is a strong continuity between stalls and circle, and a sense of unity in which the audience feels part of a shared, collective experience framed by the architecture.

There is no doubt that the Olivier is a magnificent, harmonious architectural space, but as a space for theatre, opinion is more divided. Despite its capricious acoustics, amplified by a comparatively huge volume per audience member, and the notorious difficulty of focusing the playing area, the epic room is highly effective for successful productions and full houses. For more vulnerable work and a smaller house, however, it can feel unsupportive and over-scaled.
We searched for a single room embodying stage and auditorium whose spatial configuration, above all else, would promote a dynamic and emotional relationship between audience and actor – between a fixed architectonic geometry of vision, acoustics and concentration and the chance irregular demands of performance. We searched for an open relationship that looked back to the Greeks and Elizabethans and, at the same time, looked forward to a contemporary view of society in which all could have a fair chance to see, hear and share the collective experience of exploring human truths. The room thus offers many possibilities and certain contradictions.

Denys Lasdun
The Auditoriums

Proscenium Theatre – The Lyttelton
In contrast to the open theatre, the Lyttelton sets up a frontal relationship between actor and stage, contained within a rectangular concrete volume with slightly curved seating rows. The side walls adjacent the stage are cast in-situ concrete, with angled board markings of varying depths. Elsewhere in the building, the thickness of boarding used for formwork was modulated at random by the contractor; but the Lyttelton walls are modelled to specific depths for acoustic and artistic effect. Much care was taken over this part of the theatre and the architects considered it to be a very highly significant element of the building. However, these walls, with their pronounced surface qualities, and atypical, diagonal orientation, feel somewhat independent from the overall space and were indeed modelled as separate objects in the design process. The division between the auditorium and stage is less strongly stated, with a proscenium opening of variable width and height. This was commented on in the ‘77 AR, in which the proscenium was described as ‘strangely undefined by the architecture and much more delineated by lighting and areas of blackness’ – a quality that theatre makers have gratefully exploited.

The parallel walls and frontal seating lends the space a cinematic feel in which the audience is relatively unaware of the rest of the auditorium. This was an attempt to sweep away the social segregation created by balconied auditoriums, in which the wealthy sat below with good views and acoustics while the poor occupied the high galleries, but in fact the stalls and circle audiences are separated to an unusual degree. The Lyttelton does manage to provide excellent sightlines and consistent acoustics throughout the auditorium, and has proved popular with many designers; but it has also been criticised as lacking intimacy and as a somewhat generic solution to the architectural challenge of the proscenium.

Studio Theatre – The Cottesloe
The smallest theatre, the Cottesloe, was initially built only as a shell to cut costs, the theatre within being designed at a later stage by the theatre specialist Iain Mackintosh and the National’s head of design, John Bury. It was immediately popular with audiences and theatre makers and has become one of the benchmarks for ‘courtyard’ style performance spaces. Its separate entrance, now often criticised for being too remote from the main foyers, was a conscious policy on the part of the National Theatre, who wished to have an entirely separate venue for younger directors and audiences at a time when ‘fringe’ and ‘mainstream’ theatre forms were far more distinct.

Recalling the precedent of historic inn yards, combined with 20th-century studio theatre adaptability, the Cottesloe is characterised by audience galleries on three sides, each with a single row of seating and a row behind of standing or leaning audience members. Within the space defined by the galleries, a variety of stage and seating configurations can be achieved, including steep rake scenic end stage, theatre in the round, long and short traverse and flat floor promenade, as well as a shallow rake end stage and thrust stage formats not in present use. The auditorium is painted black, a stark studio space that nevertheless possesses great atmosphere and intimacy during a play.
1. Working model of Proscenium Theatre, date unknown

2. Lyttelton Theatre - Mike Smallcombe - date unknown

3. Study model of the Lyttelton wall, date unknown

4. Concrete side wall detail - HTL 2008

5. Cottesloe end-stage configuration - HTL 2008

6. Cottesloe's retractable seating - HTL 2008
The National Theatre: Reception and Esteem

The building: reception and esteem

The 1965 design for the combined National Theatre and Opera House in front of the Shell Centre seems to have met with universal admiration, and the 1967 scheme almost as built was greeted with similar warmth at its publication. But by the time the building itself was nearing completion in 1977 a rising tide of hostility to assertive modern architecture, and exposed concrete in particular, ensured a less positive reception.

Critics from a range of aesthetic and ideological positions praised it: John Summerson, William J.R. Curtis, Mark Girouard, Peter Cook, Izi Metzstein, Michael Wilford, Jørn Utzon and John Betjeman are amongst the long list of those who have at various points expressed their admiration for the architecture of the National Theatre. Particularly dear to Lasdun were letters from members of the public thanking him, for example, for ‘a most refreshing sense of space in the foyers, and we did like the texture of the concrete and the satiny finish of the stainless steel.’

After all the sniping and griping, it is a relief to be able to report that the new National Theatre feels not like a white elephant or cultural mausoleum: more like a superb piece of sculpture inside which it is possible to watch a play or walk and talk in the lobbies without feeling dwarfed by one’s surroundings.

Michael Billington, The Guardian, 12 March 1976

Denys Lasdun’s ambitious building has brought off a triumph to confound the sceptics. The huge foyer, which, with its tables and Folies-Bergère Manet bars, with its people of all ages and classes walking up and down, listening to music, talking, creates an ambiance of social enjoyment that the French find it easy enough to evoke with their cafe tables spreading over the Paris pavements, but which has hitherto been unknown in London.

Harold Hobson, The Sunday Times, 1 August 1976

Admiring members of the public were often quick to interpret and express Lasdun’s ambitions for the experience of the spaces. One letter praised the National as ‘a description of space, of texture, of form, of contrasts; it is geometry made tangible…’ and ‘a framework for human sculpture’ in which the people moving around are the colour, the noise and the movement.

One of the fascinating things about the National Theatre is the way it demonstrates how a public building can be designed as a setting for numbers of people; it’s deliberately been made incomplete without people…I know of no other theatre where the audiences are given such a sense of being actors contributing to a festive occasion.

Sir James Richards (Radio 3, 15 October 1976)

Equally, strongly felt opinions existed to the contrary, from postmodernist critics like Leon Krier, who objected to the lack of bright colours and the absence of recognisable historical architectural forms. The Prince of Wales famously attacked it in 1988 as ‘a clever way of building a nuclear power station in the middle of London without anyone objecting’

Those who regard the South Bank as something of a cultural concentration camp might be dismayed at the NT’s embattled silhouette. With its drab battledress of grey, very grey, concrete, its array of lift shafts and fly-towers punching upwards through heavily stratified decks, the NT
The National Theatre: Reception and Esteem

Certainly gives off a strongly militaristic flavour, rather like an aircraft carrier in collision with a Norman keep.
The Economist, March 5 1976, Economist Architectural Correspondent

As postmodernism has faded from view so has this line of criticism, but a public objection to exposed concrete remains widespread, especially amongst older generations. An indication of the arc of popular reaction to the building comes from two media polls. The first, in 1989, represents perhaps the lowest period in the architectural reputation of the National Theatre. In a vote among Observer readers the building was ‘the runaway winner as worst building in the country.’ Its competitors for the title were largely, like the Theatre, post-war modernist buildings. In 2001 the BBC Today Programme conducted a similar poll, and while 11.3% of voters still selected the National Theatre as the ugliest building, it had also a sufficient quantity of admirers to be voted the fourth most-loved building in the country.

Much of the dislike the public directed at the National stemmed from its contextual relationship with the Southbank centre, which for a long time was considered unpleasant, unsafe and unsuccessful as a cultural venue. Times have changed and with the first stage of Rick Mather’s masterplan complete, the South Bank is enjoying levels of popularity not seen since the Festival of Britain. The National Theatre building itself seems to have been positively re-aligned in the public’s imagination, particularly through projects on its exterior, including lighting, projections and the Watch This Space season.

Some criticisms at the building’s opening remain problematic today, however. William J. R. Curtis, who has consistently been a great admirer of Lasdun and the National Theatre, was concerned about the relationship of the ‘blank’ brick façade to its southerly context, and further questioned the accessibility of the terraces. From the outset, and in common with many new theatre projects, opinions of the building have also often varied between architects and theatre makers, despite the involvements of both professions on the Building Committee. Even before construction was complete, some theatre-makers were expressing their doubts about the solution over which they had collectively presided. One member of the committee, the director Michael Elliott, speculated (in a seminal BBC radio broadcast) whether such permanent architecture could ever properly support the ephemeral, temporary processes of theatre. Another eminent director felt the architect had gone too far in seeking a monumental, almost sacred, architectural language at the expense of functionality and theatrical permissiveness.

The two larger auditoriums have been criticized by theatre directors, actors and designers for, amongst other things, a difficult acoustic response, for being insufficiently intimate compared with older theatres of similar capacity, for an unsympathetic ambience and for too much architectural fixity. This tension between the need for a significant civic building and a supportive space for theatre making, evident from the earliest debates about the nature of the architecture, has defined much of the serious thinking about the direction in which the theatre building could develop in the future.
1. Rear view of the Theatre - AR 1977

2. Riverside view of the National Theatre, date unknown, NT Archive
Denys Lasdun & Architectural Context

Denys Lasdun (1914 - 2001) began his career in the 1930s working for the avant-garde architect Wells Coates and subsequently with Berthold Lubetkin at the Tecton group. Following war service, Lasdun returned to Tecton as a partner until its dissolution in 1948. In the 1950s Lasdun made an international name for himself through housing schemes and schools, which revealed Lasdun’s preoccupation with specificity to site and user, including attention to individual and institutional cultures.

In the 1960s Lasdun built extensively and to wide acclaim for the expanding university sector, but also completed more unusual projects, notably a luxurious headquarters building for the Royal College of Physicians. In addition to the RCP, which is now listed at Grade I, his most significant buildings were the University of East Anglia (1962-68) outside Norwich, and the National Theatre (1967-76). The former was his most internationally influential building; demonstrating how new social and educational theory could be combined with economic building techniques and a strong artistic vision. The National Theatre was less internationally influential, coming at the end of the dominance of concrete modernism, but was the building that most richly embodied his mature architectural vision. The 1980s were difficult times for modernist architects, and Lasdun’s jobs after the 1970s were less exciting and drew less attention than those of the previous decades.

The defining feature of the National Theatre is its concrete, which signals it unmistakably as a building of the 1960s and ’70s. In Lasdun’s earlier work most of the exposed concrete is made in controlled conditions on the ground or in a factory, and lowered into place by cranes onto a core that was cast into wood or steel moulds in place. At the National Theatre the concrete of the front of house is entirely produced on site, poured into wooden and fibreglass moulds. The National Theatre is the most spectacular and public example of this concrete technique in Britain, and is remarkable by international standards for the quantity and quality of its in situ concrete work.

The predominance of board-marked béton brut (raw concrete) in the National recalls a number of other buildings of the period that have been popularly (and often inaccurately) grouped under the banner of Brutalism. The movement was championed in Britain by Alison and Peter Smithson through projects such as Smithdon High School, Hunstanton (1949-1954, listed Grade II*); and was re-articulated in Reyner Banham’s 1955 article *The New Brutalism*, which appeared in the December ’55 issue of the Architectural Review. While Lasdun admired many of its aims, particularly in the sense of ‘letting the object itself bear, without any interference, the full significance of the idea’ he was keen to position himself outside the movement, and described a number of his reservations in a 1957 article in the ‘Thoughts in Progress’ series, published in Architectural Design. The term ‘Brutalism’ has however been misappropriated to informally refer to a broad range of concrete buildings of the sixties and seventies, and the public view of the National initially suffered as a result of this association.

The volumetric immediacy of the National recalls contemporary public buildings such as
1. Stepped Residences at University of East Anglia, 1960s

2. NT from Waterloo Bridge - HTL 2008

3. Royal College of Physicians, photographer unknown, 1950s

4. Royal College of Physicians, photographer unknown, 1950s

5. Le Corbusier’s Dom-ino reinforced concrete skeleton, 1914

6. Le Corbusier’s Unite d’Habitation, Marseilles - René Burri 1959

7. Le Corbusier’s Couvent de La Tourette - René Burri 1959
Denys Lasdun & Architectural Context

Kallmann McKinnell & Knowles’ Boston City Hall (1963-68), whose civic monumentality and horizontal emphasis was strongly influenced by Le Corbusier’s La Tourette (1956-60). The complexity of the NT’s interior spaces also finds precedent in Rudolph’s Yale Art and Architecture School (completed 1963), whose sculptural concrete mass is punctuated by labyrinthine passages that require, and reward, exploration.

Lasdun’s most strongly influential precedent was Le Corbusier, and his work was clearly rooted in the traditions of Modernism, seeking to develop an architectural vocabulary guided by the constructional possibilities of reinforced concrete. The horizontal emphasis and interplay of strata and tower that define the National Theatre’s urban forms recall an underlined passage in the architect’s student copy of Le Corbusier’s *Towards a New Architecture*, revealing perhaps the germ of this central theme:

*Reinforced concrete has brought about a revolution in the aesthetics of construction…suppressing the roof and replacing it with terraces…These set backs and recessions are quite possible and will, in the future…lead to a play of half-lights and of heavy shade with the accent running not from top to bottom, but horizontally from left to right.*

As well as seeking an architectural language appropriate to the constructional possibilities of the day, Lasdun was, like Le Corbusier, strongly influenced by aspects of the classical tradition in his search for coherence through the ‘control of light, space, movement, material, proportion and form’ (Curtis ‘94).

*Classicism respects human scale, proportion, rhythm, repose, tactile qualities. I am a classical architect and it is a classical building, a serious building, an austere building, not at all frivolous. It’s modern, it’s sculptural, it’s not in any style except ones own. Pure form, nakedly displayed…* Denys Lasdun (quoted by Peter Lewis 1990)

10. Le Corbusier at La Tourette - René Burri 1959


11. Kallmann McKinnell & Knowles' Boston City Hall - Kidder Smith 1981
Developments since 1977

Although the structural skeleton of the National Theatre has remained unchanged, there have been a number of accretions to the fabric over the years that have, to varying degrees, affected the character and occupation of the building.

The detailed analysis of building elements, including additions and alterations, can be found in section 4: Conservation Strategy, which assesses threats to the architectural significance.

Lasdun’s Strategy for the Future, 1989

In 1989, a time when public opinion towards the building was at its worst, Lasdun produced an illustrated document titled ‘A Strategy for the Future’, which was presented to the National Theatre Board as a series of guidelines for appropriate maintenance and potential additions to the building. The document was self-initiated by Lasdun in response to minor modifications and accretions over the years that he considered inappropriate and detrimental to the architecture. Changes had included re-positioning of the bookshop, box office and the creation of the Espresso Bar. These operational developments were not objected to in principle but Lasdun was concerned that the design of new fittings were often not in sympathy with the original fabric.

Anticipating the need for change at various scales, the Strategy sought to establish hierarchies of elements, clarifying ways in which materials relate in their detailing. Lasdun stated that the purpose of the strategy study was ‘to examine ways in which the building can be adapted to meet some of the demands now being made upon it... without harming its architectural integrity’. Lasdun clearly felt the need to both defend the building’s qualities, and to take part in addressing some of the operational issues facing the theatre.

The document provides a revealing insight into the possible changes that the architect anticipated for the building, including reorganization for the road system; and the detailed language that Lasdun considered appropriate to new developments. Proposals were put forward with reference to a set of architectural guidelines, based on well-defined layers of relative permanence, intended to govern the implementation of current and future works. These ranged from external landscaping, through Olivier acoustic issues, to possible rooftop extensions. The list of proposed works is outlined in the Appendix. It is noteworthy that Lasdun proposed a number of quite playful interventions (tensile canopies, stalls and kiosks for example), working in counterpoint to the more formal and permanent-looking elements of the existing structure.

Still relevant today are Lasdun’s observations on the accretion of clutter, temporary signage and incongruous furniture, accepting that the inadequate provision of front of house storage had contributed to these accumulations. An intriguing proposal, not described in the Strategy (related anecdotally by Susan Lasdun but for which no surviving documentation has emerged), was for a single storey, independent bookshop pavilion connected to the eastern ground floor foyer by an ‘umbilical’ link.
1. Back cover to Landun’s Strategy for the Future, showing tensile structures on the Baylis terrace and a jetty on the river. 1989

2. Lyttelton Foyer - AR 1977

4. Lyttelton Foyer balconies, mid morning - HTL 2008
Major works
The most significant alterations to the building were undertaken in 1997 as part of a major
refurbishment project under the directorship of Richard Eyre, designed by architects
Stanton Williams. The consistently well-detailed proposals for the building were focused
on three key points: removal of the one-way road system around the building, introducing
a two-way road on each side; the internalization of the porte-cochère in a new glass
structure accommodating an expanded bookshop and box office / entrance foyer; and
the creation of ‘Theatre Square’ at the building’s north-western corner. The work also
included a new lighting and signage strategy throughout the front of house, refurbished
services, new lift access to the Terrace Café, and a reconfiguration of the Cottesloe
foyer.

The extent of the initial proposals put forth by Stanton Williams in the early nineties,
which had included partial removal of the Waterloo Terrace bridge link, was opposed by
Lasdun and others. The building was listed at Grade II* in 1994 and the proposals were
scaled down considerably, resulting in no alterations to the concrete structure.

The successful creation of a new public space in Theatre Square has proven to be
particularly popular in the summer months of the Watch This Space season, and
encourages greater pedestrian permeability between the building and river. The removal
of the road and the addition of a new glass entrance enclosure and bookshop has created
a lively outdoor gathering and entertaining space to the north western approach, but has
also created a relatively dead area to the eastern side of the bookshop, where the service
and delivery yard, bin stores and surface level car park are situated.

Following the realignment and extension of the river walk during the construction of the
IBM building in the 1980s, the northern corner now has a weaker relationship to the
dramatic raking struts supporting the overhanging terraces above, and appears somewhat
lacking in activity and public presence at ground level.

The bookshop has been operationally successful in its prominent new position, although
it has restricted views out of the building and has obscured the axial and symmetrical
entrance approach of the original design. Another key change to the foyer space occurred
in the relocation of the glazing line of the Lyttelton foyer, which was moved outwards to
create more space internally. This has been successful in relieving the space pressure
on the foyers, and the glazing was treated in sympathy with the original windows. The
move has however reduced the rotational symmetry and compression of the two enclosed
staircases that embrace the triple-height void of the foyer, loosening the once tightly
enclosed directionality of the Lyttelton foyer.
1. Original signage to the Auditoriums - AR 1977
2. New glass enclosure beneath former porte-cochère - HTL 2008
3. Service yard and parking area at the north corner - HTL 2008
4. Auditorium signage - HTL 2008
5. Theatre Square, summer - Photo: David Heath 2007
6. Watch This Space in Theatre Square - HTL 2008
Alterations to Restaurants, cafes and bars
Over the years successive alterations have been carried out in the restaurants, cafes and bars, enabling the various types of catering facilities to promote their different characters and operate more successfully.

Front of House bars were upgraded as part of Stanton Williams’ major works in 1997. Whilst the bars and box office fittings have maintained a consistent, albeit different aesthetic and material treatment throughout the front of house areas, the restaurant and cafes have been re-designed over the years as distinctly branded spaces, though all catering is in fact in-house. The varied catering offer, which ranges from formal dining to canteen meals, tapas and pizza, has been distinguished from non-revenue generating front of house areas by the use of wall coverings, dropped ceilings, lighting and furniture. The Mezzanine restaurant and Olivier Circle Café have also been separated from adjacent circulatory spaces through the addition of glass screens and sections of timber parquet flooring. These interior design moves reflect successive responses to the challenges posed by the original architecture, in which catering spaces typically lacked a clear relationship either with the interior foyer spaces or the exterior frontages. The occupation of the former box office with the Espresso Bar was the first, successful attempt to extend the Theatre’s catering provision to the outside.

In general however, whilst recent fit-outs and additions to restaurant and café areas are of high quality in themselves and have met the current catering brief well, it is debatable whether they reinforce the essential spirit of the architecture or contribute to a consistent, overarching sense of theatricality.

Within the foyers themselves, experiments with different furniture and seating systems have lent a welcome degree of informality but in places lack a clear design narrative, and relate to the original fabric with a material inconsistency. More recent fit-outs, such as that of the Terrace Café, using a simple palette of materials that do not conflict with the concrete framework of the original architecture, suggest a more appropriate direction in which to take future fit-outs.
1. 'Ovations' Restaurant, date unknown

2. Original timber and hessian bars - NT 1970s

3. Terrace Cafe interior - date unknown (1980s?)

4. 'Mezzanine' restaurant glass partition - HTL 2008

5. 'Mezzanine' Restaurant - HTL 2008


Approaches to the temporary

The building was conceived as a series of overlapping and inter-dependent layers of permanence, from the timeless concrete to the ephemeral flow of audiences in and out of the auditoriums.

Lasdun’s notes make clear that the foyers, terraces and bars, which together constitute the ‘fourth theatre’ of the front of house spaces, were not to be regarded as unchanging places of silent contemplation but for conviviality and encounter, for noise and bustle, for the social transactions of everyday life. Lasdun enlisted the imagery of street markets, fairs, stalls and kiosks to conjure up the demotic, playful, secular activities that would leaven the formality of his building, and the daily activities such as foyer music and, to a lesser extent, exhibitions encourage a more vibrant occupation of the interior spaces.

Events on the building’s exterior have proved hugely successful – particularly the annual Watch This Space season in and around Theatre Square, which celebrates its tenth anniversary this summer, and temporary installations on the flytowers such as the Fourth Wall projections and Ackroyd & Harvey’s turf-covered Lyttelton flytower (2007). Together with the popular new polychromatic lighting of the building exterior, these ephemeral changes to the appearance and occupation of the building have positively re-aligned Lasdun’s building within the popular imagination.

The rigour with which permanent changes or accretions to the fabric should be developed can be successfully balanced with a more playful, evolving approach to the temporary. This is already being managed well on the riverside elevations, but it could be extended to the interior foyers, in which the primary elements of the ‘base’ architecture interact not only with the semi-permanent secondary fittings but also with the theatrical landscape of each production or series of productions.
1. Lyttelton Flytower at night from Waterloo Bridge - HTL 2008
2. Watch This Space in Theatre Square - HTL 2008
3. Ackroyd & Harvey's Turf Flytower with Anthony Gormley sculpture - Photo: David Heath 2007
4. Anthony Gormley sculpture on the NT - Photo: D. Heath 2007
5. Tea Dance in Theatre Square - Photo: David Heath 2007
The National Theatre Today

The National as cultural institution

The National’s cultural remit extends far beyond that of performance; it is an interrogator of the social and political climates of the past and present, an educational force and a prominent urban presence. The conception of its building as an extension of the urban landscape, through which the theatre of everyday life could be revealed against the backdrop of the cityscape, has expanded its urban role and provided a vehicle for broader public engagement with theatre.

The National Theatre is central to the creative life of the country. In its three theatres on the South Bank in London it presents an eclectic mix of new plays and classics from the world repertoire, with seven or eight productions in repertory at any one time. And through an extensive programme of amplifying activities – Platform performances, backstage tours, foyer music, publications, exhibitions and outdoor events – it recognises that theatre doesn’t begin and end with the rise and fall of the curtain.

National Theatre Mission Statement 07-08

As the company approaches fifty years in operation, the opportunity to re-examine the cultural role of the institution, and in particular the changing modes of public participation, has also been recognised as a chance to further the building’s conception as an accessible, public institution.

The Artistic programme

Following Laurence Olivier’s tenure as Artistic Director (1963 – 1973), Peter Hall was appointed Director in preparation for the move to the National’s new building on the South Bank, in which the first performance took place in 1976. Richard Eyre succeeded Peter Hall in 1988; Trevor Nunn took over in 1997, and Nicholas Hytner in 2003.

While the core mission of the theatre has remained consistent, successive artistic directors have developed varied programmes according to personal preoccupations and in response to the evolving socio-political context. The National’s continuing objective under the current directorship is to present a diverse artistic programme, through which the repertory system is a means of balancing artistic risk and audience demand. The distinct characteristics of the three auditoria are reflected in the choice of repertoire; the Olivier is often used for ‘state-of-the-nation plays and large-scale public dramas; the Cottesloe is used mainly for new and experimental work, while the Lyttelton presents a wide-ranging programme including classics and musicals. The National also provides support to pioneering companies based outside the building, such as Punchdrunk or Shunt. Touring throughout the UK and abroad enables the work of the National to extend far beyond the South Bank, and West End transfers, produced by the NT, have proved to be highly successful ventures.

The three theatres are currently enjoying commercial and critical success, while the amplifying activities are proving to be increasingly popular and well attended. A key aspect of the theatre’s recent success has been the introduction of new audiences, encouraged particularly by choice of repertoire and by initiatives such as the Travelex
The New National Theatre is yours.
£10 season, which runs for six months each year in the Olivier and has played to 90% capacity for the past five years.

The National is governed by a Board, whose members are non-executive and un-paid, and managed by the Director, currently Nick Hytner, as well as the Executive Director, Nick Starr, and Finance Director, Lisa Burger. The board delegates to the Director the selection and staging of all productions and events performed at, and under the auspices of, the National. The Director is supported in making repertoire decisions by four Associate Directors, as well as the NT Associates and a group of people with responsibility for planning, casting, music and the development of new work.

Amplifying activities
In addition to the wide range of work performed in the three theatres and offsite, the National also offers Platform events, backstage tours, foyer music, exhibitions, publications and free outdoor entertainment in the form of the Watch This Space season on and around Theatre Square. These ‘amplifying activities’ that support and extend the work on stage have played a critical role in the life of the building since its opening, and are central to Lasdun’s vision of the many ways in which the building could be occupied. Around 21,000 people a year now take part in the NT’s Platforms, an eclectic programme of lectures, interview and debates connected to the repertoire that take place in the three auditoria before performances, and the growing popularity of these activities is evidence of an increasing eagerness to engage and participate in theatre in a variety of ways. This has begun to inform the NT’s thoughts about its evolving educational role, which has been central to the aims of the institution since its inception.

It is increasingly becoming our responsibility in the theatre to look beyond the work we do on our stages, and to offer, besides the performance of the great drama of the past, everything an audience might want to fully appreciate it.’
Nicholas Hytner: annual review 06-07

Participation
The role of the Education Department itself, which was formed in the eighties, was traditionally aimed primarily at young people, providing materials to enable teachers to develop their own understanding and communication of key works. NT Education delivered a variety of initiatives including performances and post-show discussions around the UK, the Stagework website (an online resource providing comprehensive information on selected productions) as well as lesson plans and guidance notes for teachers and the Connections programme of new plays for young people. As there is no dedicated space for education within the building, many of these activities took place off-site, within temporary structures on Upper Ground and more recently at the Studio.

There is now an aspiration to bring learning back to the National Theatre building, where the idea of ‘education’ could be re-imagined as a programme of public engagement to reach all ages, and in a variety of ways. The parallel development of digital innovations
and new media initiatives will continue to expand the National’s influence as an internationally accessible learning resource.

The recently launched ‘Discover’ programme of public engagement has extended the educational remit of the NT, and will build upon the existing, highly successful programme of Platforms, tours and events to include individual self-generated learning, active participation and workshops. A key part of the programme is to celebrate the on-site making of theatre, revealing the activities and processes that are currently unseen by the public.

**Making Theatre**

The NT is unusual in accommodating almost all production-related activities in-house - from the crafting of performance in rehearsal to the making of scenery, props and costumes – and the organization recognises the importance of sustaining these traditional theatre-making skills while hosting the development of new technologies such as video. The extent of this on-site making is key to the culture of the institution yet largely unseen by the public, concealed within the introverted enclosure of the workshops and elevated offices. There is however a growing public interest in the process of ‘making theatre’, and the 20,000 people a year who now take part in the NT’s backstage tours are given a behind-the-scenes view to the stages, workshops and back of house areas.

**Structure and Departments of the National Theatre**

The NT is a large and complex organization employing 800 permanent staff, as well as around 150 actors, designers and directors working in the building at any one time. There is much cross-over between departments, but the company may broadly be divided into public, theatrical, administrative and building-related activities as follows:

**Public**

These are the activities and departments that interact directly with the public, communicating and supporting the productions on stage. They include the Front of house team, Bookshop and Publications, Press, Marketing and Development; Amplifying activities, Access, Archive and Catering, which also serves Back of house.

**Theatre + backstage**

The departments that participate most directly in theatre making and production include workshop activities such as Carpentry, Paintframe, Props, Costume, Lighting and Sound, as well as Stage Management, Technical and Production.

**Artistic Planning and Management**

Repertoire-related activities such as Casting, Planning and Touring are carried out with the support of the Associate Directors and NT Associates. General Management and administrative activities are undertaken by Directors’ Office, Finance, Personnel and IT, which support the efficient running of the organisation and in the case of Company Secretarial the non-executive NT Board.
Building
Departments such as Fire & Security and Health & Safety and Housekeeping work across the above categories in responding to issues in both the public and private areas; but along with Engineering, their activities might be understood to address the occupation and fabric of the building itself. The responsibilities of the Engineering department are particularly broad and challenging and at present include maintenance, alterations and repairs to the following:

- Structure – care of the structural fabric, including cleaning of the concrete Services
- Mechanical and electrical Utilities – gas, water, power Systems Engineering – maintenance and design of automated stage equipment Capital replacements – including refurbishments to toilets, corridors and offices

Finance and Management
The National Theatre is a company limited by guarantee and a registered charity, established in 1963 for the advancement of education and to procure and increase the appreciation and understanding of the dramatic arts.

The key financial objective is to budget for and achieve a balanced outcome for each year so that taking account of regular Arts Council funding, the National is able to continue its current level of artistic activity. The National maintains a 60/40 balance between self-generated income - box office, fundraising, trading income, and public subsidy from Arts Council England. Of the 60% self-generated income, just over half comes from box office sales, 25% from trading and 25% from development / fundraising.

Box office income has been running at an average occupancy of 85% over the last five years, net fundraising income has doubled and a windfall has come from the commercial exploitation of The History Boys. These income sources are recognized to be uncertain and an unrestricted reserve of £1m, (2% of annual turnover) has been built up to provide a cushion against volatility.

A mixed stream of income sources has served the NT well and the institution is keen to further diversify its income in particular looking for more regular earned income sources.
Trading activities
The NT’s trading operations, which include catering, bookshop, programmes, car-park and costume hire, are conducted through a subsidiary company that pays its profits back to the National. At present, the revenue generated by trading operations is strongly associated with audience numbers, but there has been a recent growth in catering profit following renovation of facilities that exceeds increased performance attendance. The NT has two key aims with regard to trading operations – to build and sustain the NT brand, and to deliver commercial return – in which the development of the NT brand should be prioritized should conflicts arise. The provision of food, drink and publications must be as good as the performances – and importantly must share the aim to be open, accessible and affordable. Operating these activities in-house has provided more control over the offer and pricing, enabling a balance between profit-making and promotion of the theatre.

Capital Spending
The National aspires to set aside sufficient from its profit and loss account on an annual basis so that it can fund capital replacement and major maintenance needed over a rolling three year period.

During the period 1996 to 2003 the National was the recipient of an Arts Council Lottery Grant of £32m which relieved the profit and loss account of a making a significant annual provision for capital. The estimated annual spend is £2m per annum. Major technical equipment upgrades (eg refurbishment of the Drum) or enhancements to the public areas (lighting the Fly Towers) are in addition to this annual spend and have been financed by one-off windfalls from the profits earned from the History Boys or from fund-raising.

The capital plan for 2008-9 is fully funded but capital expenditure budgets for the subsequent years are currently in excess of the amount which can realistically be financed from the profit and loss account.

The National is currently working on a ten-year Capital plan to address both the regular refurbishment and renewal discussed above, and long-term investment needs. This will be integrated with the existing Technical masterplan that sets out short, medium and long-term strategies for the maintenance, repair and replacement of the technical and stage infrastructure.
South Bank Today

The South Bank, London’s most important cultural district, has seen great changes in recent years. Over half a century after the Festival of Britain re-introduced a sense of cultural celebration to the area, the riverside quarter is once again a thriving centre for the arts.

Developments to the east and west such as the Globe, Tate Modern and the London Eye, as well as improved pedestrian connections across the river, have vastly increased the footfall along the river, now served by active frontages along many sections of the river walk that were either moribund or non-existent when the National Theatre was first built. As the previously inert river frontages become more animated with restaurants, shops and cafes, the commercial character of the South Bank has developed and public expectations for the area have become more demanding. The following section presents a brief recent history of the changing South Bank, including an overview of the successive master plans for the area.

The cultural centre of the South Bank
The three major post-war buildings that stand at the core of this remarkable cultural area each make strong architectural contributions of great individuality. The first, the Royal Festival Hall, although re-fronted in the 1960s and heavily refurbished 2005-07, still embodies the spirit of 1950s design with its openness, its optimism and its attention to humane details in richly tactile materials. The second, the Hayward and Queen Elizabeth Hall complex, is an equally uncompromising expression of the architectural spirit of the 1960s, and tends to polarise opinion between those who dislike its Brutalist concrete aesthetic intensely and those who passionately admire its integrity of programme, construction, and formal inventiveness. The National Theatre is linked to the rest of the complex by a tunnel beneath the Waterloo bridge at mid level, but frustratingly separated at both river and bridge level. The NFT, which had occupied the space beneath Waterloo Bridge since the 50s, including expansion in 1970 and the creation of the Museum of the Moving Image (MoMI) in 1988, was re-launched in 2007 as BFI Southbank.

Post-war development
The increasing popularity now enjoyed by the area to the west of Waterloo Bridge was preceded by decades of public disaffection. Much of the criticism was leveled at the architecture, which in its strong horizontal emphasis and layered separation of pedestrian and vehicular circulation was seen to be a significant but problematic product of a particular historical and ideological moment. The architectural innovation displayed in the South Bank buildings, with their promotion of the public over the private realm was never entirely satisfactory in practice, and the dark undercroftes and obscure circulation around the South Bank proved to be deeply unpopular. The relatively low footfall, combined with a lack of inhabited, active frontages, an ineffective maintenance regime and the indistinct merging of public circulation and service routes, generated a sense of insecurity and abandonment over much of the district.
The National Theatre and City skyline from Waterloo Bridge, by Andrew Murray, 1977
South Bank Today

Southbank Centre Masterplans
In response to these failings, three separate master plans have produced for the Southbank Centre (SBC) since 1988, when the centre was created to consolidate the management of the Hayward Complex and Royal Festival Hall. Terry Farrell’s first proposal, to demolish much of the area and start again with a large introduction of commercial retail stock, revealed the sense that only radical redevelopment would address the South Bank’s deep-rooted urban problems. The plan was not implemented, and was succeeded by Richard Rogers’ Crystal Wave proposal, centred around a vast glazed roof that aimed to give a unified architectural expression to the South Bank buildings. By the time the Rogers proposal was abandoned, public opinion towards the concrete of the South Bank had softened somewhat and less invasive solutions started to be explored. In 1999, Rick Mather Architects produced a master plan in which the key buildings would be retained but each would be subject to individual design competitions for major refurbishment. Additional buildings were proposed to meet operational expansion needs and generate commercial revenue.

This plan remains current, albeit in a revised form. Broadly, it has sought to re-establish the distinctive set-piece buildings within the civic framework exemplified in the Festival of Britain, through the rationalisation and increased visibility of key pedestrian routes, the creation of public squares, clearer definition of public and private realms, and the separation of service yards that previously dominated the southern edges.

The first phase of Rick Mather’s plan is now successfully complete, and has focused on rationalising pedestrian access around the site through the removal of redundant high-level walkways and discreet re-routing and covering over of service roads. New active frontages, public lifts and ‘grand stairs’ with clear visual connections have reinforced axes between destinations and provided more lively, safer environments at all levels of the South Bank complex.

A key focus has been to animate Waterloo Bridge by creating stronger connections to and from it, increasing the sense of the bridge as a vibrant street rather than a vehicle flyover.

The next stage in the Rick Mather Southbank Centre Masterplan, currently under consultation, continues to address the need for a clear, safe-feeling pedestrian realm with improved accessibility and a more recognisable primary public route around the buildings.

The future of the Hayward and Queen Elizabeth Hall remains uncertain, although the buildings have been under consideration for listing by the Department of Culture Media and Sport for some years. The South Bank Conservation Area Statement identifies the Hayward complex as potentially warranting a local listing designation.
1. Before: Rear of the RFH - Rick Mather Architects, 2000
5. Before: Festival Terrace - Rick Mather Architects, 2000
South Bank Today

South Bank – the wider context
In parallel to the Southbank Centre’s protracted master planning process, key destinations along the river were being developed - including the Globe and Tate Modern to the east, and the London Eye to the West. The riverside regeneration, linked by the extended Thames Path and by north-south pedestrian routes across the new Hungerford and Millennium bridges, has increased footfall along the river dramatically in recent years and has reinvigorated an already popular pedestrian route.

The establishment of the South Bank as a key cultural quarter has been paralleled by regeneration initiatives including Lasdun’s own IBM office building adjacent to the National, completed in 1985, which extended the visual language of the theatre when seen from over the river and re-aligned the public river walkway.

Other developments have been directed at its residential community, for whom the revitalized cultural district and resultant increase in visitor numbers is a mixed blessing. This has occurred most notably through Coin Street Community Builders, a social enterprise and development trust that has driven projects including co-operative housing projects, a neighbourhood centre and the proposed mixed-use Doon Street development, sited directly to the south of the National Theatre. While the future of the Doon Street scheme is not fully clear at present (December 2008), the development would if completed radically change the urban nature of Upper Ground.

The expanding and vibrant community now living around the National was an important part of Lasdun’s ambitions for the site, and he is quoted in the 1977 Architectural Review Guide to the National Theatre claiming:

_Way back in 1967 in the official report to the South Bank Theatre Board, I stressed the importance of the River Thames and the need for housing...what is still needed is a community of houses, flats and shops on the King’s Reach site. I want the theatre to be surrounded by life day and night and I hope that one day it will stand at the centre of a regenerated part of the city._

Denys Lasdun, AR ‘77
1. Extent of the Coin Street Neighbourhood - Coin Street 2007

2. Proposed Doon St development to the south of the National Theatre - Coin Street 2007


4. Aerial view with proposed Doon St development - Coin Street 2007

5. Coin Street Housing, Haworth Tompkins - photo: M. Von Stemberg 2001
2. Statement of Significance

Architectural Significance
The National Theatre, designed and built between 1969-76 by Sir Denys Lasdun, is a major UK public building of the post-war period by one of its leading architects. It is an internationally significant example of late 20th century modernist theatre architecture, and retains the majority of its original primary fabric. The building was listed at Grade II* in 1994, preceding a major refurbishment project completed in 1997.

The vertical flytowers are the principal architectural expressions of the performance activities within, while the stratified terraces provide a horizontal counterpoint and communicate the openness of the building as a whole. Predominantly constructed in reinforced concrete, with a distinctive board-marked finish of exceptionally high quality, the structural members and ‘diagrid’ soffits are visible on the exterior and throughout the interior front of house areas. The concrete is materially contrasted by the more prosaic but elegant brick enclosure of the workshops to the southern part of the building.

Urban Significance
The National is a prominent London landmark, occupying a key site on the South Bank of the Thames to the east of Waterloo Bridge. The dual aspect towards both Westminster and St Paul’s strategically locates the building at a point from which the two historic cities of London form the urban backdrop to the theatre’s layered strata, which provide places for gathering, events and public stages to form an ‘architecture of urban landscape’.

The National Theatre is sited alongside a number of important post-war structures, including the Royal Festival Hall, Hayward Gallery and Queen Elizabeth Hall, which together form a highly significant ensemble of mid-20th century cultural buildings. The National also has a strong compositional relationship with the Grade I and II* listed structures of Somerset House and Waterloo Bridge.

Cultural Significance
The National Theatre is at the heart of the cultural life of London and of the UK, and is an internationally renowned centre of theatrical excellence. The company was established in 1963 for ‘the advancement of education and, in particular, to procure and increase the appreciation and understanding of dramatic art in all its forms’. An eclectic mix of new plays and classics are performed within the theatres, while touring enables the National’s reach to extend beyond the South Bank. As an educational force the National provides a broad cultural experience that is accessible, challenging and unique.
Theatres' Significance
The National Theatre three theatres are highly distinct architectural conceptions supported by innovative technical equipment, which each offer a variety of theatrical possibilities. The largest theatre, the Olivier, is an open stage space accommodating 1120; the Lyttelton a proscenium stage seating 890; and the Cottesloe is an adaptable studio space of up to 400 seats. The Olivier and Cottesloe in particular have proved to be highly influential, and together the three theatres represent the most ambitious ensemble of post war performance spaces in the UK.

Back of house and Production Significance
The backstage and workshop areas house the processes of theatre making – set construction, painting, propmaking and rehearsal, with costume and wig making on the upper floors. These are significant as ‘factory’ spaces in which the work on stage is produced by a large on-site team of engineers, craftspeople and artists. The National is unique in London Theatre in accommodating so much of its production activities and making under one roof. The administration offices still offer some of the best working spaces in London, with far-reaching views and river terraces.
3. Issues and Opportunities

1. Changing attitudes towards the building
The listing of the National Theatre at Grade II* in 1994 reflects the acknowledgment of the value and significance of the building by Conservation bodies. There is also a new level of recognition by the general public of its architectural merit, supported by the increasing popularity of the wider South Bank.

This growing appreciation of 20th century architectural heritage is putting the NT under pressure to respond to the concerns of Conservation groups, and to take a more considered approach to maintenance and alterations to the fabric. Potential changes and developments that may impact upon the significance of the building will need to have very strong architectural and operational justification. This Conservation Management Plan should be used as a tool to assess the implications of any such change.

2. The changing role of the National Theatre
The current commercial and critical success of the theatre has led to new and increasingly diverse audiences coming to the building with a variety of expectations about what the National might offer as a cultural experience. The National can no longer rely upon the majority of its audience to possess a working knowledge of the canon (classical, or theatrical), but there is also recognition of a growing and more sophisticated interest in theatrical process amongst audiences. Increasing enthusiasm towards Platforms, backstage tours and online resources demonstrates that while audiences may have more limited ‘inherent’ knowledge, they also have a greater appetite for the broad educational role of a National Theatre.

This includes a desire to participate more directly in the making of theatre, and the recently launched ‘Discover’ is providing ways in which this can be explored through online resources and the Archive. The long-term ambition however, is to encourage a more porous and permeable occupation of the building itself, extending Lasdun’s aims for the public spaces to include the private zones of theatrical production.

*I feel that all the public areas of the building, the foyers and terraces, are in themselves a theatre with the city as a backdrop. The National Theatre is not a temple, and the policy of the company is that it should be a very open building....It is very important that the National Theatre becomes part of the city. Any idea of a cultural ghetto has gone.*

Denys Lasdun ‘Humanising the Institution’ – Architectural Review 1977

The hierarchies between public and private are integral to the principles of the architecture, and attempts to blur such boundaries may pose threats to significance if approached without a careful understanding of the language of the original building. It must also be emphasised that the National’s aspirations towards ‘institutional transparency’ and ‘permeability’ should not be considered synonymous with architectural transparency. The possibility of greater public access to the backstage areas for example, to which there are currently few external openings, will need to give careful consideration to the significance of the workshop enclosure.


3. The changing context of the South Bank

The South Bank is now becoming the thriving cultural centre and mixed-use neighbourhood that Lasdun had originally envisaged. Despite the physical isolation of the National Theatre building on completion, it was hoped that the theatre would not be regarded as a stand alone, inviolable monument, but rather that its scale and presence would become progressively leavened by surrounding urban developments. Lasdun saw the National as a catalyst for re-urbanisation of the wider site, a process that he hoped would over the years generate a diverse fabric of housing, recreational spaces and workplaces. As the river frontages become animated with restaurants, shops and cafes, the commercial character of the South Bank has developed and public expectations have evolved. The National’s inert rear and side edges, its lack of porosity at all but its western corner, and the presence of a service yard on prime riverside territory now appear incongruous in this changing context. The increasing vibrancy of the area, though beneficial to the NT, has also served to highlight the relative under-use of the National’s advantageous qualities - its siting, interior spaces and generous terraces.

As the commercial activities along the river continue to develop, the parallel thoroughfare of Upper Ground / Belvedere Road is also undergoing change. Active streetscapes to the riverside buildings’ rear facades have begun to locate the structures in a civic landscape oriented to both north and south. In response to the creation of Festival Square on Belvedere Road and the increased volume of pedestrians from Waterloo and the Cut, the urban environment to the south is demanding a higher quality public realm. In particular, the proposed mixed-use Doon Street scheme, which is sited directly opposite the workshops, will intensify street level activity around the National and offer an opportunity to create a new public space of genuine quality.

The National sees potential in activating the southern edges of the building and its roofscape, which offers further possibilities for engagement with the layered urban landscape of the terraces, bridge and Southbank Centre. This presents opportunities to reinforce the cultural institution of the National and provide a more engaging relationship with the urban context. However, any such change could also pose a potential threat to the architectural significance of the building, and will need to be approached with sensitivity.
South Bank - land ownership and adjacencies:
There are a number of complexities surrounding land ownership and management in and around the National’s layered context, dominated by the large arts complex of the Southbank Centre and a major transport route along Waterloo Bridge. Many proposals under the SBC Masterplan would have direct consequences for the National’s relationship with the wider site, yet these are subject to a number of currently uncertain phases of development. Such changes may not be implemented for many years; but they illustrate the nature of the thinking surrounding the wider site and present an opportunity for more coordinated decision-making between the NT and the SBC.

There are for example a number of changes under consideration to the grade II* listed Waterloo Bridge, which is realised would impact upon the NT. The focus of proposals is to provide increased activity and circulation at bridge level, connecting to new high-level public space. In shifting the focus of pedestrian circulation up to bridge level, the tunnel currently connecting the NT to the Southbank Centre may become redundant. Its potential closure would effectively isolate the NT from the elevated routes of the SBC, unless alternative links to the bridge were investigated.

In addition to these future uncertainties, there are a number of current issues surrounding management of the urban setting. Unlike neighbouring South Bank buildings that typically own their adjacent section of River Walk and embankment, the NT’s land extends only to Theatre Square and the service yard, with the area between the NT and the river owned and managed by the Southbank Centre. The SBC’s proposed landscape and lighting strategy for this area will benefit the National and its setting, and is evidence of the drive to improve the public realm. However, the piecemeal and ad-hoc accumulations of the past are beginning to clutter the Queen’s Walk in this area, impeding the flow of pedestrians along an increasingly crowded route. An unsightly news kiosk near the service yard has for example had a negative impact on the significance of the setting, despite providing a useful service and enlivening an otherwise barren area.

A further key issue for the National is the density of the trees along Queen’s Walk, which now greatly hinders the building’s relationship with the river. Although the original planting scheme had indicated that alternate trees be removed after a period (as has been proposed in front of the Royal Festival Hall), the NT is currently unable to press for such changes. There are strong arboreal arguments for intervention, but Lambeth Council has so far resisted calls to thin the trees, which are subject to a tree preservation order.

Opportunities should now be sought to develop a vibrant and high quality public realm, through a more coordinated approach to the significant settings of the South bank buildings.
Issues and Opportunities

4. Public Circulation and Accessibility

Exterior Circulation:
One of the key characteristics of the South Bank buildings is the separation of pedestrian and vehicular traffic. The South Bank Conservation Area Appraisal - which describes the NT and its immediate surroundings as ‘progressive, modern and innovative’ and ‘an architectural showcase for the post-war period, promoting the public over the private’ (Waterloo Area Opportunity Development Framework, 2007, p.28) – praises this mix of ground and high level routes through complex building forms. It is observed however that while these layered urban relationships add ‘depth and interest to the urban grain’, they are often illegible and provide poor accessibility for people with disabilities.

The WOADF also states that while the ground-level spaces around the buildings form important pedestrian routes to and along the river, they are often inert service streets with poor streetscape design, which tend to privilege the riverside edges over routes to the south. This is re-iterated in the Lambeth Unitary Development Plan (p.193, Lambeth Council, August 2007), which notes that while a number of buildings are of a high architectural quality, ‘overall they impose an impenetrable superstructure on the area’. Policies focus on providing clearer pedestrian movement, active street frontages, the separation of pedestrians from service lanes and delivery yards, improved access for disabled people and the creation of permeable open spaces. Such recommendations follow the principles of the Rick Mather Urban Design Strategy, proposed in 1999. The completed phases of Rick Mather’s Masterplan have successfully improved pedestrian circulation and orientation in certain areas of the Southbank Centre (see South Bank Today).

The 1997 changes to circulation and landscaping around the NT have improved the pedestrian relationship between the building and river walk, and the creation of Theatre Square has provided street-level activity during the summer months. While pedestrian routes are now far more generous, there are areas in which the lack of definition in the landscaping has deprived the building of a clearly articulated base (formerly provided by the circulating pavement). High level entrances and terraces also remain underused, due to the lack of clear vertical routes.

Any opportunities to improve horizontal and vertical circulation around, over and into the building, through more effective signage and lighting or by way of exterior lifts; should enable the external spaces to become high quality, accessible public realm while respecting the integrity of the architecture.

Interior Circulation:
Despite the National Theatre’s ambition to appear open and available, the interior spaces are also underused during the day. Once inside the building, orientation is hampered by the lack of clear level connections between the three theatres, which has always proved problematic. The building’s circuitous routes and complex spatial relationships...
are however considered an important part of the theatrical experience of the foyers, and an exploratory occupation of the space is to be celebrated and encouraged. The navigational legibility of the foyers nevertheless needs improvement, and there is now an opportunity to re-appraise the signage and lighting within the foyers, as well as clarify the entry sequence through which visitors are introduced to the building. Alterations should seek to reinforce the axial clarity of the original design; and opportunities to re-instate a more sympathetic relationship between signage, lighting and architecture should be investigated.

Front of house signage and lighting remains a contentious issue with regard to accessibility. While a 2001 audit noted significant improvements in access terms following the 1997 work, there is also a consensus that in architectural terms, the changes to lighting and signage are the most problematic aspects of the front of house, being too bright and dominant.

The complex vertical organisation of the architecture presents challenges for DDA wheelchair access within certain areas of the building. The National is committed to a rolling programme of improvements to the accessibility of both Front and Back of house areas. Current pressing issues include the width and weight of entrance doors; sanitary provision and wheelchair access to the Concert Platform and Espresso Bar. There is also unsatisfactory accessibility to the auditoriums and backstage areas of the Theatres. There is no lift access to the upper levels of the Olivier, resulting in the installations of chair lifts within the foyer. These have had a negative impact of significance and the provision of alternative methods of vertical access should now be sought.

An updated audit will be needed to assess these issues and the challenge will be to reconcile best practice and conservation requirements.
5. Operational Pressures

Changing use of the foyers:
The current under-use of the Front of House areas and terraces by the public during the
day contrasts with the growing popularity of activities – live music, bars and food offer -
that occur around the shows during the early evening. This has placed new demands
on the foyers, catering facilities and bookshop and can create problems for staffing,
security, wear and tear as well as lead to an increase in temporary signage.

While catering spaces were provided in the original design, some have proved to be
under-used and commercially challenging. In response, there has been a pressure to
individually define revenue-producing catering and retail facilities, often through a
suppression of the original architectural qualities of the spaces - concealing the concrete
walls and coffers and re-lineing the spaces with materials considered appropriate to the
nature of the catering offer. The introduction of these new materials has created distinctly
branded spaces, disrupting the spatial fluidity and material consistency of the foyers. A
new approach to the interiors should respond to the needs of the catering offer while
adhering to the design principles based on Lasdun’s hierarchy of elements.

Increasing use of front of house areas for development and fundraising events has also
generated conflicts between the ‘democratic’, access-all-areas nature of the public foyer
spaces, and the need to cordon off and define private events. The Deck, a temporary
pavilion on the roof at Olivier Circle level, has relieved some of this pressure in providing
a separate space for private hire. Its success has highlighted the demand for independent
spaces that can accommodate a variety of activities without interfering with the operation
of the theatres.

The increasingly diverse uses for the foyers, coupled with a resultant lack of storage
 provision, has produced a large amount of clutter in the form of seasonal and temporary
furniture, musical and technical equipment, ice cream stands and moveable signage.
Accessible storage areas need to be created and managed on a hierarchy of use.

There is a lack of space in the Cottesloe foyer, which has always been too small for the
auditorium, whose capacity was determined late in the design process. There are long
queues to the bar and toilets, which in turn are suffering from excessive wear and tear.
The 1997 modifications to the foyer attempted to gain space at ground floor level by
demolishing the original large staircase, but the new stair has obscured the vertical
connection by employing high, opaque balustrade panels. There is a pressing need to
find additional space.
Changes in Theatrical Production:
The most notable change in theatrical production has been the development of digital
technologies, particularly video and sound. Spaces dedicated to these activities are
currently inadequate and there is a pressure for expansion or improvement of current
facilities. Having outsourced much of the set-, prop- and costume-making during the
eighties, the National now takes great pride in the extent of its on-site activities and is
keen that new production methods and technologies amplify, rather than replace, these
traditional theatre-making skills. There is an aspiration to combine new digital facilities
with a dedicated space for visiting designers for meetings and design development with
directors, the production department and workshop heads.

The presence of successive artistic directors and visiting teams has had an impact
on the stages and back of house, as the aspirations of particular productions push
the development of new technologies, as well as improvement to the performance of
existing facilities. Where the accretion of technical infrastructure has impacted upon
the architectural reading of the auditoriums, however, some loss of significance has
occurred; these are described in more detail in section 4: Strategy.

Space pressures
Space is generally at a premium throughout the back of house and the building is now
accommodating many more people and activities than were originally designed for. Use
has been made over the years of the triple-height of the workshop block, with infill
floors constructed for office and storage space. High level offices in the workshops have
obstructed daylight to spaces below, yet are often poorly lit and ventilated themselves.

There has been an increase in administrative space requirements across the NT.
Departments such as Engineering, Housekeeping and Technical Resources have expanded
and there are new departments such as Education and Development that were not catered
for in the original design, and which now require more generous accommodation. The
increasing space requirements have often led to offices being established in inappropriate
locations, with no daylight and inadequate ventilation.
6. Sustainability

Environmental Sustainability:
The long-term aim for the National Theatre is to become exemplary in its approach to sustainable strategies for reducing carbon emissions by improvements to heating, cooling, ventilation and power systems. At the same time the NT is looking at reducing water use and improving waste stream management. As a model institution for the Mayor’s Climate Change Action Plan (CCAP) for Theatres, the National is already under way towards the development of a comprehensive environmental strategy. There are significant opportunities to develop more coordinated neighbourhood strategies for waste management, power supply, deliveries and water management, including initiatives currently being researched by South Bank Employer’s Group and London South Bank University. The National has established - and is expected to meet - its own 2008 sustainability targets with regard to water and energy consumption, and has engaged in a high profile collaboration with Philips Lighting (‘Green Switch’ initiative) to provide low-energy lighting solutions throughout the building. Further development is needed on this issue, as lighting specified in the 90s has resulted in localized areas of overheating, as well as staining of the concrete. A lack of lobbied entrances at ground floor is also causing thermal discomfort and energy wastage.

Surveys by the Carbon Trust have identified a number of areas in which the National could further increase energy efficiency. Both immediate and long-term solutions have been proposed, concentrating initially on improvements to existing systems through the introduction of variable and automated controls and more extensive sub-metering. An overhaul of the Cottesloe ventilation system was also recommended.

A full environmental audit will be carried out as part of the forthcoming Master Plan to develop long-term coordinated strategies for improvements to the efficiency the existing systems and the built fabric. Environmental upgrades will need to follow conservation principles laid out in this document, while responding to the sustainability guidelines put forth in the Waterloo Opportunity Area Development Framework. There may be potential conflicts between the drive towards maximum sustainability and the need to conserve architectural significance, and careful consideration will need to be given to conservation constraints in the investigation of more efficient but highly visible building components such as glazing systems.
Wear and tear:
The National Theatre is a robust building that has been in constant use, six days a week (now seven), for over thirty years, and the fabric is durable and structurally sound. The exceptional quality of the concrete, which displays very high levels of workmanship, requires careful maintenance to protect its surface. Graffiti is a growing problem on the South Bank, and while there is a pressure to remove it as quickly as possible in order to deter repeat attacks, the NT is aware that specialist cleaning is required to minimize damage to the concrete. Free graffiti removal provided by South Bank Employer’s Group is therefore not taken advantage of due to the harmful methods used.

Localised rust staining is visible on the surface of the exterior concrete due to the presence of small amounts of ferrous matter in the aggregate, or exposed reinforcement; and there is some degradation of the glazing system indicated by staining of windows. Front of house interior concrete surfaces have survived well, although distinct marks are visible in the location of the original steel lettering, removed in 1997. Carpets, also replaced in 1997, are suffering wear and tear, with gaffer tape masking damage to the carpet edges and extensive areas of unsightly ‘watermark’ shading caused by localized changes in the orientation of the pile. Other original floor finishes have been replaced with timber parquet, which is at odds with the original material palette.

The Cottesloe auditorium is also in need of a major overhaul. The seating system is inflexible, obstructive in many configurations and difficult to change, the ventilation system is inefficient and the technical systems are nearing the end of their working life. While there is no wish to radically re-design the successful proportions of the auditorium, most of the componentry within the space now requires renewal or major renovation.

Maintenance and repairs to the fabric are carried out by the Engineering department; including renovation of toilets, corridors and offices. The original public WCs have been refurbished as necessary, often replaced with undistinguished or incongruous fittings and decoration that do not contribute to the significance of the building. Back of house areas are in a varying state of repair, having been refurbished on a rolling capital programme, and without a long-term strategic approach to repair and replacement. Limited funds and a lack of clear design guidance on such works has sometimes resulted in poor quality interventions, but the NT should be commended for its general approach to the fabric. The wear and tear on the building is being well managed and does not represent a significant threat at present, but needs to be monitored in terms of choices for replacement components and finishes.

The NT has already begun to implement a more purposeful approach to the refurbishment of certain back of house areas, seen for example in the corridors adjacent to the stages; although many high traffic areas remain in poor condition, with low ceilings and institutional finishes. There is now an opportunity to rectify the piecemeal and unsympathetic changes with a more robust approach in keeping with the original architecture.
Issues and Opportunities

Commercial and business pressures:
The National has in the past maintained a healthy balance between ticket sales, public funding and trading activities. Historically, the revenue generated by trading operations has been strongly associated with audience numbers, but there has been a recent growth in catering profit following renovation of facilities that has exceeded increased performance attendance. This has highlighted the opportunity for commercial activities to deliver a more sustainable source of income that could support the growing amplifying activities, ensure maintenance of the building, and sustain affordable ticket prices.

The increased footfall along the river supports the ambitions for trading activities to attract a greater proportion of non-theatre goers and daytime visitors. There may however be threats to architectural and cultural significance should the revenue-generating activities come to challenge the core theatrical activity. The National currently manages the balance between the delivery of commercial return, and the more critical aim to build and sustain the NT brand, by operating the activities in-house. This has enabled the NT to exercise control over the offer and pricing, ensuring profit-making does not supplant promotion of the theatre and that the provision of food, drink and publications shares the aim to be open, accessible and affordable.

The success of the commercial strip beneath the Royal Festival Hall, which includes a number of well-known branded restaurants, has however placed arts organisations such as the NT under increasing pressure to expand and diversify the nature of its offer. While the precedent of the RFH model, in which space is leased to independently-run businesses, has proved financially attractive, there is also some concern that the character of this unique cultural quarter may suffer from an increasing commercial focus. Any proposal should give careful consideration to the nature and scale of any new or expanded commercial activities, both in relation to existing architecture, and to the promotion of the theatres within.


4. Conservation Strategy

This section presents the strategy for conservation, management and development of the fabric at the National Theatre. The overall objective is to address the issues and opportunities outlined in Section 3, ensuring that significance is retained or enhanced.

Having identified the key architectural, cultural, technological and social values of the National Theatre and its company, this section examines in more detail the physical components of the building and their relationship to use and inhabitation. Each element of the NT is considered in turn – its significance is assessed, particular observations noted, and component parts assessed where necessary. Policies / recommendations for that element are subsequently made to indicate how the Conservation Principles should be applied. The Principles provide a guide to the development and care of the building and site in order to ensure its architectural and cultural significance is retained and reinforced. This section also presents a method of impact assessment, showing how the Conservation Management Plan can be used to evaluate any proposed change to the buildings or site.

Explanation of Terms

- **Alteration** means modifying the existing fabric to meet new objectives.
- **Conservation** means the process of looking after a place so as to retain its significance. It includes maintenance and may according to circumstances include preservation, restoration and adaption and will be commonly a combination of more than one of these.
- **Fabric** means all the physical material of the place.
- **Maintenance** means the continuous care of the fabric, contents and setting of a place, and is to be distinguished from repair or replacement.
- **Planned maintenance** means a programme of preventative maintenance that is carried out before the breakdown or failure of the element or component, as opposed to unplanned or corrective maintenance which takes place after failure.
- **Policy** means a plan of action for a specific element which should be followed when planning and carrying out work to that element.
- **Preservation** means maintaining the fabric in its existing state and retarding deterioration.
- **Principle** means a fundamental standard or rule to be applied to all work on the site and buildings.
- **Repair** involves like-for-like replacement of materials.
- **Restoration** means returning the existing fabric to a known earlier state. This is not to be confused with conjectural reconstruction.
- **Setting** means a building’s surrounding external area (including other buildings) which is seen in views of the building. Significant settings are those seen in important views of significant buildings.
- **Significance** means the sum of the heritage values attached to a place. The significance is inherent in the place; it can be revealed or reinforced by the management of the place.
Impact Assessment

The Conservation Management Plan is a tool in the process of impact assessment, through which proposals for change are evaluated. It is essential that the Conservation Management Plan is applied as a whole. A proposal for change may be affected by a number of Principles and Policies / recommendations, and all of them should be taken into account when assessing the impact of the change. If the Conservation Management Plan is applied selectively, there is a risk of drawing invalid conclusions.

The procedure is based on the Principles set out in the following pages. All relevant criteria for conservation management should be covered by the Principles, so it should not be necessary to introduce additional factors when carrying out impact assessment. If it turns out that additional criteria have to be considered, there is probably a need for new or amended Principles or Policies.

Structure for impact assessment
The impact assessment procedure has four components, described below, which would normally be presented in a report. The four-part structure should be suitable for assessing proposals of any scale, but the level of detail would vary depending on scale and importance - the length of an impact assessment could vary from a page or two to a short report.

A Key data - the basic data for the impact assessment:
A1 Identify the proposed work
A2 Identify the elements of the building that are affected, and the level of significance attached to them in Section 4 of the Conservation Management Plan
A3 Assess whether further research or analysis is necessary
A4 Identify the Principles in Section 4 of the Conservation Management Plan that have a bearing on the proposed work;
A5 Identify Policies that are relevant to the work, if any.

B Description of the proposal
This can be in words or drawings, in sufficient detail for the evaluation to be carried out. The reasons for the proposed change should also be stated.

C Evaluation
For each element that is affected (A2), consider each of the relevant Principles (A4) and Policies (A5), and state whether the proposal is consistent with the Principles and Policies. Often the evaluation will go beyond a simple, factual exercise: judgement may be required, and in such cases the basis for the evaluation should be set out clearly.

D Conclusion
The conclusion establishes whether, having reviewed each element for each Principle and Policy, the proposal is or is not consistent with the Conservation Management Plan. If the proposal is consistent for every element and relevant Principle and Policy, it should normally be acceptable from conservation point of view; whereas if it is inconsistent for one or more of the elements and Principles or Policies it may not be acceptable.
Conservation Principles

1. The Conservation Management Plan (CMP) should be applied whenever work to the building or its setting is being planned or carried out

1.1 The CMP should be formally adopted by The National Theatre.

1.2 The CMP should be approved in principle by English Heritage and the local planning authority, Lambeth Council, and accepted as the basis for the conservation of the NT by The Twentieth Century Society.

1.3 Copies of the CMP should be passed to all consultants involved in work to the buildings and setting, and it should be made available to all contractors.

1.4 The CMP should be made available for information and consultation by all interested parties and members of the public.

1.5 The NT should refer to the CMP and follow the Principles in it whenever work to the buildings or setting is planned, commissioned or carried out.

1.6 The CMP should be regularly reviewed and updated every 5 years or after major changes to ensure its continued relevance and use.

2. Coordinated planning procedures should be established and used

2.1 A system of planning and decision making, involving the NT, relevant specialists and outside bodies with roles affecting the NT should coordinate the whole range of interventions to the building and its setting.

2.2 Systems of planning and decision making should work on the longest feasible timescale, to maximise opportunities for consultation, coordination and efficient working, and to minimise the risk of damaging actions.

2.3 Policies for maintenance and management should be incorporated in the NT’s day-to-day maintenance activities and maintenance planning. Where these Policies affect the listed building, the local planning authority should be informed that the Policies are being pursued, referring to this CMP.

2.4 Whenever the NT wishes to carry out work to the listed building that is in accordance with a Policy for refurbishment and alteration, the local planning authority should be informed and detailed information about the way the Policy is to be carried out should be submitted to the local planning authority for comment, information and monitoring purposes, referring to this CMP.
Whenever the NT wishes to develop proposals that are in accordance with a Policy for Potential changes, the local planning authority should be consulted, proposals should be developed in accordance with the Principles in this CMP, and the proposals should be submitted to the local planning authority for planning and listed building consent, if appropriate, referring to this document.

Whenever the NT wishes to carry out work that is not covered by a Policy, proposals should be developed in accordance with the Principles in this CMP and submitted to the local planning authority for planning and listed building consent, if appropriate, referring to directly to relevant sections of this document.

**3 Work to the building and its setting should be planned on the basis of expert knowledge**

**3.1** Documents about the design, construction and alterations of the building and setting should be recorded and catalogued by the archivist to provide a complete historical record, in a form that is easily accessible in the archive or other agreed location.

**3.2** Whenever non-maintenance work is carried out to the building and setting, the structure, materials and services of both the existing and new work should be recorded, and the information added to the catalogue. This information should be used to inform revisions to the CMP (see 1.6).

**3.3** Whenever possible, knowledge about the building and setting held by individuals should be recorded in suitable documentary forms, and the information added to the catalogue.

**3.4** Work to the building and setting should be planned by individuals and organisations who have made themselves familiar with their history, construction and significance, and who have proven expertise in the relevant field of work.

**4 New development should respect the significance of the existing building and setting**

**4.1** Alterations or new development that would reveal or reinforce the significance of the building or its setting should be carried out whenever there is an opportunity.

**4.2** If proposed alterations or new development present a threat to significant settings, alternative strategies should be thoroughly investigated in order to minimise any detrimental impact on the setting.
Conservation Principles

5 Alterations should respect the significance of the existing building and setting

5.1 Alterations to the existing building or setting that would enhance significance should be carried out whenever there is a practical and affordable opportunity.

5.2 Preservation should be a priority for elements of very high significance. Alterations that would detract from their significance should only be considered for the most compelling and exceptional reasons and any such alterations should be carried out so as to minimise the damaging impact of the work.

5.3 Alterations that would detract from elements of high significance should be pursued only if there are no practicable alternatives that would lead to a reduced loss of significance.

5.4 Alterations that would detract from significant elements should only be made if they meet an essential need of the NT and any such development should be carried out so as to minimise any loss of significance.

5.5 Alterations to elements of some significance or no significance should not normally be constrained for conservation reasons, so long as there are no secondary damaging impacts on elements of higher significance. Original materials in elements of some significance should be retained where possible.

5.6 When alterations are required by health and safety or other regulations, alternative strategies should be thoroughly investigated to identify ways of complying with the regulations that avoid or minimise detraction from significance.

5.7 When alterations are made, original materials in significant elements should be retained where possible, and only removed if there is no appropriate strategy that would allow its retention. Where significant fabric is removed, its location should be recorded and, where possible, items or samples catalogued and stored in a conservation environment/repository for possible future re-use or reinstatement.

5.8 Priority should be given to using significant elements in ways that reveal or reinforce their significance.

5.9 Whenever possible, alterations to significant elements should be carried out in ways that are reversible, rather than in ways that are irreversible.

5.10 During alteration work, opportunities to improve the environmental performance of the NT should be exploited, in ways that avoid or minimise detraction from significance.
6 Management, maintenance and repair activities should respect the significance of the building and setting

6.1 The building and setting should be cared for by a planned maintenance programme based on a complete knowledge of the elements and their significance, with regular inspections and preventative action.

6.2 Where significant elements of the building or setting have deteriorated, they should be replaced, repaired or restored in such a way as to regain significance. Original building elements that are worn or weathered should be repaired or restored rather than replaced, so long as they are still serviceable.

6.3 Repairs to significant original material should retain the original qualities, in particular:
   • colour, texture, reflectivity, geometry
   • dimensional accuracy and precision of joints
   • resistance to physical deterioration
   • security and fire resisting properties

6.4 Maintenance and repair work to significant elements should be carried out by persons who are qualified and experienced in working with the relevant materials.

6.5 Care should be taken to supervise and, where relevant, train operatives to ensure that fabric is not damaged by maintenance and repair activities.

6.6 Particular attention should be paid to keeping in good order roofs, gutters and rainwater drainage systems to conduct water safely away from the building.

6.7 Evidence of defects should be reported and investigated, and remedial work prioritised to minimise damage.

6.8 When practicable and affordable, makeshift alterations carried out in the past should be removed or modified to ensure that they do not detract from significance or present a threat to the fabric.

6.9 During repair or maintenance work, every opportunity should be made to improve the environmental performance of the building, in ways that avoid or minimise any detraction from significance.
Conservation Principles

7 Service systems should be appropriate to the architectural character of the building

7.1 Wherever practicable, uses should be assigned to parts of the building whose inherent characteristics provide suitable environmental conditions with minimal reliance on service systems.

7.2 Service systems for lighting and heating should be designed to enhance the significance of spaces they serve, in terms of (i) the environmental conditions created, and (ii) the visual and acoustic impact of the system components.

7.3 The replacement of old service systems by new systems that perform better should not normally be constrained for conservation reasons, so long as the new systems avoid or minimise damaging impact on significance.

7.4 Where components of old service systems are significant but functionally obsolete, redundant ducts or openings should be sealed to protect the integrity of the fabric whilst retaining the components’ visual appearance.

7.5 When new service distribution networks are necessary, alternative distribution routes should be thoroughly investigated to identify routes that avoid or minimise damaging impact on significant elements.

7.6 Makeshift insertions of service systems carried out in the past should be removed to ensure that they do not detract from significance, or present a threat to the fabric.

7.7 Redundant services system of no significance should be removed where possible.

7.8 Service systems should be provided with access to allow for maintenance and renewal with minimum disruption to the fabric.

7.9 Whenever service systems are refurbished, practicable opportunities to reduce energy and water consumption and carbon emissions should be exploited.
Elements

The elements of the National Theatre are considered individually. These elements constitute areas of the building, from the scale of exterior architectural systems to interior spaces and components. The typical entry for each element has four sections:

**Assessment of Significance**

The assignment of significance to each element of the National Theatre is based on the information in Sections 1, 2 & 3. The overall assessment is given in Section 2; Statement of Significance; here the relative importance of different elements is considered, so that proportionate weight can be given to the care of the more important elements.

Note that the element assessments in the Conservation Management Plan do not relate to functional performance or usefulness, but solely to the element's architectural and historic significance. As a result, recent additions may appear to be under-valued if they are not considered significant in conservation terms.

Significance is rated according to the following hierarchy:

**A. Very High Significance**
Elements of exceptional interest that are outstanding examples of their kind, which make a fundamental contribution to significance

**B. High Significance**
Elements of considerable interest that are excellent or rare examples of their kind, which contribute strongly to significance

**C. Significant**
Elements of intrinsic interest that are good and representative of their kind, which make a contribution to significance

**D. Some Significance**
Elements of interest that are typical or representative examples of their kind, which make some contribution to significance

**E. No Significance**
Elements that have no significance in conservation terms, may be visually intrusive, do not contribute or detract from significance

The assessment is not intended to be a systematic survey, but it points out features (sometimes quite small) and identifies functional issues that should be taken into account when any work to the element is being considered.

**Component assessment**

Elements can cover zones of the building and are usually assigned to one of the levels of significance. Often it is necessary differentiate components, aspects or features that define the element, if they have different levels of significance.
Policies / recommendations:
These have been made to manage the future pressures facing the NT and indicate how the Conservation Principles should be applied to particular elements. This is not exhaustive. As new situations arise, these policies and recommendations should be revisited, new ones generated and superseded ones removed.

There are three types of Conservation Policies / recommendations:

Potential changes
Strategic opportunities identified; future consent required

Refurbishment and alterations
Specified changes to fabric; currently require listed building consent

Maintenance and management
No change to fabric; no listed building consent required
**Schedule of Elements**

<table>
<thead>
<tr>
<th>Significance Level</th>
<th>Elements</th>
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<tbody>
<tr>
<td><strong>A. Very High Significance</strong></td>
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<td><strong>B. High Significance</strong></td>
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<td><strong>C. Significant</strong></td>
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<td><strong>D. Some Significance</strong></td>
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<tr>
<td><strong>E. No Significance</strong></td>
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**Urban Context**
- South Bank
- Pedestrian & Vehicular Circulation
- Waterloo Bridge
- Queen’s Walk
- Cottesloe Avenue & Service yard
- Upper Ground
- Theatre Avenue
- Theatre Square
- Signage, Public realm lighting

**External Edges**
- A West Corner
- B North Corner
- B Cottesloe entrance
- C Workshop Block
- C Waterloo Bridge Link
- A Terraces
- C Roof
- C Dressing Room Courtyard
- D Basement
- A Concrete
- B External Windows
- B Brickwork
- C External Lighting

**Front of House**
- A Front of House Foyers
  - A Primary Elements
  - C Secondary Elements
  - C Furnishings: Colour
  - C Furnishings: Furniture & Fittings
  - C Furnishings: Signage and Displays
- B Lighting
  - E Entrance Foyer, Bookshop, Box office
  - C Basement Foyer
  - B Lyttelton Foyer
  - E Lyttelton Cafe & Espresso Bar
  - C Terrace Cafe
  - E Mezzanine Restaurant
  - A Olivier Foyer
  - E Olivier Circle cafe

**Olivier Theatre**
- A Auditorium
- C Technical

**Lyttelton Theatre**
- B Auditorium
- C Technical

**Cottesloe Theatre**
- C Foyer
- B Auditorium & Technical

**Back of House**
- D Offices
  - D Kitchen & Canteen Areas
  - C Dressing rooms
  - C Wigs, Wardrobes & Dye Rooms
  - D Circulation & Secondary Spaces
  - D Workshops, Drum Road & Dock Door
  - D Rehearsal rooms
  - E Service spaces
Urban context: South Bank

‘I feel that all the public areas of the building, the foyers and terraces, are in themselves a theatre with the city as a backdrop. The National Theatre is not a temple, and the policy of the company is that it should be a very open building... The strata of the building are like new levels of ground and they will become real places. It is very important that the National Theatre becomes part of the city. Any idea of a cultural ghetto is gone.’
Denys Lasdun, AR ’77

Observations
The South Bank is a highly significant cultural quarter that includes a number of important listed buildings, including the National Theatre. The character and popularity of the area has greatly improved following the implementation of the first stage of the Rick Mather Southbank Centre Masterplan, which has focused on improving pedestrian routes and connections.

The Waterloo Area Development Framework and South Bank Conservation Statement identify areas for improvement, although uncertainty about future development in the immediate vicinity of the theatre can make coordinated decisions difficult. The NT can however make a large contribution to improving the public realm by strengthening connections to the cultural quarter, which is seen as a motor for regeneration in the wider area.

The National is close to the major transport hub of Waterloo and is increasingly the focus of north-south pedestrian communication; but the public areas to the south, east and west of the NT currently support little activity other than as through routes. Many pedestrians arrive at the National from the south and the blank workshop facades engender an unwelcoming sense of ‘backstreets’ compared to the primary riverside areas. In the context of intensifying development along Upper Ground, the introversion of the NT’s southern elevations has become increasingly problematic in urban terms.

The area has witnessed a vast increase in footfall along the river and better daytime use of new facilities at ground level. But the National has not benefited from the increased concentration of visitors and workers to the same extent as the newly refurbished Royal Festival Hall, and the foyers and cafes are still under-used during the day.

Entry and Circulation
The footprint of the National Theatre is sited in an orthogonal relationship to Waterloo Bridge and the River Thames. The volumes of the Lyttelton and Cottesloe Theatres and Workshops follow this orientation, while the Olivier Theatre generates a 45 degree axial geometry to the main entrance that is reiterated in the ‘diagrid’ soffits throughout the front of house.
1. National Theatre from Waterloo Bridge - HTL 2008
2. London Eye from National Theatre terrace - HTL 2008
3. Royal Festival Hall - HTL 2008
4. Hayward Gallery - HTL 2008
5. Increased footfall along the river - HTL 2008
6. New landscaping in front of the Royal Festival Hall - HTL 2008
Urban context: South Bank

Original entry sequence
The primary entrances face the river and were accessible by a one-way vehicular route at ground level via a low concrete porte-cochère and on foot at the piano nobile Terrace level. The Cottesloe was entered separately from the approach road near the south east corner of the building. Staff and actors entered by way of the stage door on the north east face of the building, while the Service access was located on Upper Ground.

Access to the car park from the one-way road system was by way of two ramped entrances, one on Cottesloe Avenue and one (after passenger drop-off under the porte-cochère) on Theatre Avenue. The two exits were on Upper Ground, where cars had to turn left and drive round the National before turning onto Upper Ground.

1997 alterations
In 1997 the road circulating the building was removed in order to create a pedestrian public square at the building’s western edge, and a service area on the north corner. The access to the car park was simplified to one entry / exit route and reversed; entry to the car park is now by way of one of the ramps on Upper Ground; exit is on Cottesloe Avenue and the Theatre Avenue ramp has been covered and replaced with staircases to the car park. This has improved pedestrian occupation of this edge, though the semi-pedestrian character of Theatre Avenue is to some extent compromised by the remaining service access for BFI Southbank Centre.

Both Avenues have been repaved in a high quality engineering brick to match the original base path around the building. Whilst consistent with paving materials elsewhere in the building, the extent of brick paving can appear somewhat unremitting in the absence of active frontages or other public activity. The brick paving surface has subsided in several locations under vehicle loading.

Policies / recommendations:

Potential changes
- Future changes to the setting should ensure that the urban character of the South Bank is preserved and enhanced
- Views from Somerset House, the North Bank and Waterloo Bridge to the National Theatre are key and must not be obstructed

In line with existing frameworks, including those set out by South Bank Employers’ Group, Waterloo Opportunity Development Framework and Lambeth Unitary Development Plan, the regeneration of the public realm should have regard to the following principles:

- Provide a safe, attractive and accessible environment and priority for pedestrians
- Strengthen the relationship between buildings and improved streetscapes
- Create the active street frontages at ground floor level
- Separate pedestrians from service lanes and delivery yards
- Create and enhance public open spaces
- Consider more durable / diverse paving materials and substrates for vehicular surfaces

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8. Early aerial photograph of the NT, showing curve of the river, 1970s - NT Archive


Key:
- [Key Legend]
- [Legend Details]
Urban context: Waterloo Bridge

Observations

Waterloo Bridge is an artery to the West End from the South Bank and strong north-south connection. Many pedestrians arrive by bus and stop off at Waterloo Bridge to walk to the South Bank. The proposed City Square to the south, as well as pavement widening along the bridge, will further increase pedestrian access to the riverside. A strengthened connectivity to the National Theatre will become even more desirable.

Rick Mather’s masterplan for the Southbank Centre aims to animate the bridge by strengthening connections to the neighbouring buildings along generous and self signing desire lines; and removing unsatisfactory routes that feel compromised, threatening and signage-reliant. A key conceptual driver is the aspiration for the bridge to effectively ‘end’ at the river edge, so that south of Waterloo Steps it functions as street rather than highway, connecting to the redeveloped ‘City Square’ proposed for the area around the IMAX.

Included in the current SBC Masterplan is a proposal to remove the tunnel beneath the bridge that currently links the NT’s Waterloo Terrace with the Hayward and Queen Elizabeth Hall, replacing it with a connection at bridge level. The motivation for this decision was generated by the inferior quality and scale of this route and its resulting lack of intuitive navigation, which was exacerbated by the construction of MOMI beneath the bridge. At the time of the NT’s opening, the link beneath the bridge was open to the road below.

Unless a corresponding link can be made to the NT at bridge level, the removal of the tunnel will isolate the National from the South Bank Centre at Terrace level. A stronger connection between the NT and the bridge could be considered, corresponding to a bridge level pedestrian crossing were the connection to occur at higher level.

Note: The Rick Mather masterplan has no statutory weight as a planning document and its status or priority is unclear at this time.

Policies / recommendations:

Potential changes

- Level connections to the Bridge should be investigated in coordination with proposals outlined within the Rick Mather Southbank Centre masterplan
- Any developments must take note of the Grade II* listed status of Waterloo Bridge and the significance of the West corner of the National Theatre.
1. View to NT site across the new Waterloo Bridge, 1940s - NT Archive

2. Walkway beneath bridge prior to construction of NFT, 1970s - AR "77

3. Waterloo Bridge from terraces - HTL 2008

4. Existing Southbank Centre relationship to Bridge - Rick Mather 2007

5. NT approach along Waterloo Bridge - HTL 2008

6. Waterloo Bridge from Baylis Terrace - HTL 2008

7. BFI Southbank beneath Waterloo Bridge - HTL 2008

Urban context: Queen’s Walk

The Queen’s Walk, also known as Riverside Walk, is the spine of the conservation area and presents a very long linear pedestrian boulevard, which has dictated the siting and form of most of the significant post-war buildings. It is a city wide pedestrian route – public space of national importance. For much of its length it is lined by an avenue of mature London Planes which mirror the trees on the N bank of the Thames. Impressive ‘Sturgeon’ lamp standards mark much of this route.


Observations

The post-war buildings within the South Bank Conservation area are set back from the river to create a wide pedestrian promenade. At the time of the NT’s opening, the river walk terminated to the east of the National, but was extended during construction of the adjacent IBM building, which opened in 1984. Approximately 20 million people a year now walk past the National along Queen’s Walk; but this increased footfall along the river is not fully reflected in increased use of the NT’s public areas.

The relationship of the NT building to the river, and to the views of the north bank and St Paul’s from the ground floor foyers, has been compromised in recent years by the density of the trees along the river walk. In ‘NT: A Strategy for the Future’, Lasdun reiterated the original intention to remove alternate trees as they matured. He notes that this would allow fuller use of the Riverside Walkway for a variety of activities, as well as allow the remaining trees to mature fully. Whilst this approach is consistent with normal arboricultural practice, the trees are however subject to a tree preservation order and Lambeth Council has resisted previous proposals for their removal.

There is however a complexity of land ownership and management of Queen’s Walk. Design proposals by consultants Gross Max for the landscape between the National and river, including new street furniture and lighting, are currently underway. Large-scale projects such as this have been successfully coordinated between the Southbank Centre and National Theatre. Some conflicts have however arisen, reflected in the unattractive solitary kiosk in front of the north corner parking area that sits on land not owned by the NT. There is a significant amount of clutter on Queen’s Walk.

Original proposals included a National Theatre jetty, but there is currently no jetty onto the river between the Festival Hall and Bernie Spain gardens.

Policies / recommendations:

Potential changes:
• Investigate ways to exploit more effectively the increased footfall along the river
• Explore potential for a National Theatre jetty
• Investigate the removal of alternate pairs of trees along the river
• Develop a coordinated approach to landscape, public art, lighting and furniture
1. Scenes from The Mystery Plays, 1977 - NT Archive
   Note the clear visual relationship to the river and lack of clutter

2. Large trees now screen the river from the NT, even in winter - HTL 2008

3. ‘Sturgeon’ Lamp standards - HTL 2008

4. Active frontage beneath RFH, summer - HTL 2008

5. Queen’s Walk, summer - HTL 2008

6. Queen’s Walk tree density - HTL 2008

7. Street furniture in need of replacement - HTL 2008
Urban context: Cottesloe Avenue and Service Yard

Observations
In 1976, the public thoroughfare of the river walk terminated to the east of the National, giving prominence to the overhanging terraces. The raking struts were grounded by the pavement and circulating road, which gave a clear and defined base to the building. The relative lack of public activity at this north corner was reflected in the presence of the service yard.

The river walk was extended during the construction of IBM in the 80s, loosening the relationship between the building and river. In 1997, the circulating road was removed, retaining the necessary service zone for the kitchens and waste collection while creating a riverside parking area and vehicular drop off to the new entrance lobby.

The road surface was replaced with a brick paved area, creating a continuous surface for cars and pedestrians. The alterations were intelligently designed within the constraints of the project scope, but the position of the yard as a whole remains incongruous. A service area and parking bay is an inadequate use of an increasingly busy public frontage, and its location puts pressure on Cottesloe Avenue as a service access route, resulting in the need for barriers and a security kiosk to control access to this area. The road is unwelcoming for pedestrians.

Policies / recommendations:
Potential changes
- Promote Cottesloe Avenue as a pedestrian north/south connection between the South Bank and The Cut
- Reconsider the use of the parking area, which occupies a prime riverside location.
- Investigate ways to provide more public activity
- Examine ways in which the pedestrian experience could be clarified and improved through paving, street furniture and lighting
1. Aerial photograph showing termination of River Walk, 1970s - NT Archive

2. National Theatre parking area, - HTL 2008

3. Cottesloe Avenue - HTL 2008


5. North corner, 1970s

6. Kiosk adjacent to NT parking area - HTL 2008

7. Parking area overlooking river - HTL 2008
Urban context: **Upper Ground**

**Observations**

To the south, the immediate urban context was characterised in the 1970s by derelict buildings and car parks, with very little street activity. The area has however developed vigorously since the National’s completion, led by Coin St Community Builders (CSCB) who acquired much of the surrounding land in the mid-1980s. The Iroko and Mulberry housing cooperatives, the Coin St Neighbourhood Centre and the proposed Doon St development will combine to establish a densely populated mixed-use fabric, which in turn will generate a more active street life.

At present the NT’s orientation towards the river characterises Upper Ground as a backstreet, despite its promotion as a spine route and key pedestrian connection. The workshop building is set back unequally from the street line due to the building’s orthogonal alignment with the river, but instead of proscribing a generous open space the street edge is delineated by long vehicular ramps to the basement car park and the dock door service yard, neither of which are comfortable on the now very much more public pavement.

Following the 1997 re-routing of car park access, one of the ramps is now redundant but the landscape remains dominated by vehicular signage and barriers. An infrequently monitored coach parking area exacerbates the sense of pedestrian exclusion, and the dock door has no enclosed service area or laying-off point.

**Policies / recommendations:**

**Potential changes**

- Explore alternative positions for the car park entrance
- Explore the opportunities for active frontage along Upper Ground, respecting the significance of the building and setting.
- Examine ways in which the pedestrian experience could be clarified and improved through types of paving and street furniture

**Maintenance and Management**

- Explore alternative locations for coach parking
1. Undeveloped land around the NT, 1970s - NT Archive

2. Upper Ground and coach parking area - HTL 2008

3. Entrance to NT car park - HTL 2008

4. Street Furniture and coach drop off - HTL 2008

5. Montage of proposed Dyon Street development behind NT - CSCB 2008

6. Hayward complex on Upper Ground / Belvedere Road - HTL 2008

Urban context: Theatre Avenue

Observations
Theatre Avenue was originally a one-way route for vehicles leaving the National, or entering the car park by way of two ramps. A void existed beneath the bridge until the construction of MOMI in 1988, in an area now occupied by BFI Southbank.

Following the removal of the road circulating around the building in 1997, Theatre Avenue became a semi-pedestrian route, with service access retained for BFI Southbank. The area was re-paved in engineering brick, with a lack of distinction between the zone used for periodic vehicular access and that of pedestrian circulation.

Although the external works have been well detailed and thoughtfully designed, the space still feels under-populated. Bounded by the relativelyinactive frontages of the NT and BFI (the latter improved by a recent café installation), Theatre Avenue lacks definition when unoccupied by vehicles, and feels unwelcoming when lined with the large trucks used to deliver BFI equipment.

Fixed concrete benches were added in 1997, but the presence of bollards and security barriers near to Upper Ground discourages use of the street furniture. Bicycle parking is provided beneath the canopy of Waterloo Terrace and appears well-used, though vulnerable to theft.

As a key pedestrian route between Waterloo and the riverfront, local planning policy has identified the opportunities for street-level activity on Theatre Avenue.

Policies / recommendations:

Potential changes
• Promote Theatre Avenue as a pedestrian north/south connection between the South Bank and The Cut
• Investigate ways to provide more public activity, respecting the significance of the building.
• Examine ways in which the pedestrian experience could be clarified and improved through paving, street furniture, lighting and signage
1. Theatre Avenue in 1984 prior to construction of MOMI (now BFI) beneath bridge - SBEG

2. Stair to carpark, added 1997 following removal of ramps - HTL 2008

3. Delivery of equipment for BFI Southbank - HTL 2008


5. Semi-pedestrianised Theatre Avenue - HTL 2008

6. Concrete bench on Theatre Avenue - HTL 2008

7. Theatre Avenue from Espresso Bar - HTL 2008

8. Theatre Avenue - HTL 2008
Urban context: Theatre Square

For the summer months Theatre Square in front of Denys Lasdun’s iconic building on the South Bank becomes the fourth auditorium, where all sorts of surprises are waiting to happen. Watch This Space is the playful side of the National, where we can let our hair down on the lawn and welcome a vast number of extraordinary artists to entertain us.

National Theatre, Watch This Space 2008

Observations

In the area now known as Theatre Square, the circulating road originally separated pedestrians on the river walk from the building. Although this acted as a barrier, it also encouraged use of the anchor stair as a bridge to the entrance at terrace level.

The creation of a pedestrianised square in 1997, following the removal of the road, is a successful addition to the public realm, particularly well used in summer months as part of the Watch This Space season of events. The square is reinforced by the extended foyer beneath the porte-cochère, but this has also compromised the approach from the east (see External Edges: West Corner).

Theatre Square is at a raised level in relation to the original road, and the stepped boundary with Queen’s Walk has become less pronounced. The 1997 natural slate paving and upstands to the bookshop and staircase are a new addition to the man-made palette of concrete and engineering brick used elsewhere around the NT building.

The square is visible from the Lyttelton Foyer and Espresso Bar but there is a lack of permeability between inside and outside, exacerbated by the change in level dictated by the Espresso Bar Terrace.

Policies / recommendations:

Potential changes

• Examine ways in which the pedestrian experience could be clarified and improved through paving, street furniture, lighting and signage

Refurbishment and alterations

• Develop temporary technical infrastructure that is compatible with the significance of the building and setting
1. Anchor stair and porte-cochere in the 1970s - NT Archive

2. Use of the terraces and Queen's Walk, 1970s - NT Archive

3. Watch This Space summer season - photo: David Heath 2007

4. Theatre Square during the Watch This Space season - HTL 2008

5. Theatre Square, winter - HTL 2008
Urban context: Signage and Public Realm Lighting

Observations
Original exterior signage followed the principles of the interior, with polished steel lettering and steel plates bolted directly to the concrete. A large triangulated NT sign designed by F.H.K. Henrion stood at the southern edge of the building on Upper Ground. In the 80s, a large dot matrix sign was erected on the north-western elevation at high level, and is visible from the north bank and Waterloo Bridge.

Exterior signage on the building itself, such as the stainless steel lettering on the Baylis Terrace, was largely removed in 1997. Since then, the NT has been announced by the large 'National Theatre' banners that line Queen's Walk, Upper Ground and the Avenues. These now incorporate light fixtures that illuminate the banners from within. While the banners mark the edge boundaries of the NT setting, they do not offer clues as to how to enter the building, nor to the presence of three individual theatres. They do not respond to the 45 degree axis of the Olivier, and the coloured fabric surfaces are now beginning to fade.

Seasonal signage such as the Watch This Space sign that wraps around the Waterloo Terrace parapet successfully brings attention to the external space of Theatre Square, but makes the main entrance appear more recessive.

Fire escape signage on the building’s exterior escape routes is inconsistent, with recent signs appearing adjacent to some remnants of the original stainless steel signage.

Policies / recommendations:
Potential changes
• Carry out a comprehensive study of the components that furnish the urban edges
• Explore new external signage and lighting that enhances the significance and aids orientation and arrival.

Maintenance and management
• Ensure amenity lighting is well maintained and that signage is consistent. Co-ordinate approach with wider South Bank strategies.
1. Original NT sign designed by F.K. Henrion on Upper Ground, AR '77

2. 1997 main entrance signage - HTL 2008


4. The large dot matrix sign, added in the 80s - NT Archive

5. Original lettering on Baylis Terrace, date unknown - NT Archive

6. WTS signage making the main entrance appear recessive - HTL 2008

7. Cottesloe signage on Cottesloe Ave - HTL 2008
External Edges

The Theatre does not have ‘elevations’ in the normal sense at all. The radiating strata introduce an ambiguity about the exact boundary plane of the building: a deliberate move to fuse the object with surrounding public realm.
Curtis, ‘94

The National Theatre occupies a four-sided urban block, presenting in plan a distinct set of street edges. In elevation however, the building is seen to have a complex relationship with its context through the interplay of three contrasting architectural systems: concrete strata, towers and steel-frame brick box. For the purposes of developing the conservation strategy the external envelope of the building has been divided into six distinct zones, which define the key architectural systems and their points of juxtaposition.

The West Corner
The primary riverside frontage, characterized by stratified, receding terraces, deep undercrofts with external recessed glazing and the projection of the 45 degree axis towards Waterloo Bridge

The North Corner
Dominated by raking buttresses and the elevated strata of administrative offices

Cottesloe Theatre Entrance
Marking the junction between the stratified concrete structure and the workshop block

Workshop Block
A low brick and concrete box that wraps around the southern edges of the building

Waterloo Bridge Link
Bridge link and vertical circulation at the west junction between Workshops and Front of House

Terraces and Roofs
The accessible terraces and roofs connecting the above zones

The key external materials, concrete, glass and brick are assessed independently.

This section of Strategy is preceded by an assessment and summary of the Architectural Principles of the exterior massing and material articulation, which forms the conceptual basis from which policies are derived.
External Edges: West Corner

Assessment: A

...a response away from the isolated monument and towards an architecture of urban landscape. It is an architecture without facades but with layers of building, like geological strata, connected in such a way that they flow into the surrounding riverscape and city.
Denys Lasdun, AR '77

Observations
The west-facing riverside corner is most successful in realising Lasdun’s concept of the building as an extension of the urban landscape, developed through the complementary architectural systems of strata and towers. The Olivier Theatre auditorium and flytower are raised over the main entrance on a diagonal axis inflected towards the west. This 45 degree geometry, also expressed in the diagrid soffits of the terraces, is juxtaposed with the Lyttelton Theatre flytower, orthogonally aligned to Waterloo Bridge. Beneath the dominating vertical elements is a series of receding terraces, or ‘strata’, which mediate between the two geometries and form layers of urban landscape that connect the interior foyers to the bridge and Southbank complex.

The terraces meet the ground via the ‘anchor’ stair, which marks the processional route on axis towards the Olivier foyers. This axial geometry of the western corner is abruptly terminated by the Olivier double escape staircases, arranged perpendicular to the bridge and marking both the junction between front and back of house and the original junction between external public and service territories, now superseded by the extended Queen’s Walk and IBM terraces.

In 1997, the entrance foyer was extended at ground level under the porte-cochère, providing a more prominent position for the bookshop, box office and information desk. The well detailed glass enclosure delineated a new urban edge, to create Theatre Square. New entrance doors were aligned with the Lyttelton geometry, emphasising the ground floor pedestrian entrance from the square.

The original ground floor entrances, hidden under the porte-cochère and blocked by road, and the ‘anchor’ staircase at the prow of the entire composition had never performed entirely satisfactorily as pedestrian destinations. From the outset, audiences never fully engaged with this very important stair in the ways that were intended, to the extent that the first floor terrace entrance was not well used, and the porte-cochère was a relatively recessive main entrance. The 1997 bookshop and entrance alterations were designed to alleviate these problems and strengthen the public connection between the foyers and the riverside. In this respect they have been a success, but in deviating from the primary 45 degree axis they have obscured a key generating principle of the overall design. In some other aspects the new arrangement is also less successful. For example, the base
1. Aerial shot emphasising western inflection, 1970s - photo: Handford

2. Lasdun model, date unknown - NT Archive. photo: Behr

3. Espresso Bar beneath Waterloo Terrace on Theatre Avenue - HTL 2008

4. National Theatre west corner and Theatre Square - HTL 2008

5. The west corner from Waterloo Bridge, winter - HTL 2008

6. Junction between public and private marked by Olivier escape stair - 2008
of the bookshop enclosure has been raised and the glass enclosure designed to hug the
anchor stair, so that the visual and physical connection to Theatre Square behind the
staircase is cut off from the eastern approach. Temporary technical infrastructure for
Watch This Space events can also compromise the primary public entrance from the
west.

The entrance foyer effectively divides the riverside frontage at ground level, and
pedestrians now arriving from east and west riverside directions are not greeted equally.
This has led to some confusion as to the location of the main entrance, generating the
need for prominent signage on the exterior. The need to discourage skateboarders from
using the new level changes around the east wall of the bookshop has resulted in a
remedial and highly unsatisfactory arrangement of freestanding planting tubs. The visual
confusion that this creates is exacerbated by the backs of shop fittings and sign boards
inside the glazed walls to the north and east of the bookshop.

The Espresso Bar now occupies the original box office location and this has proved to
be a popular and successful change. Detailing and planning are well-judged and good
use has been made of limited space. The raised area of brick paving was extended
to form seating areas beneath the undercroft of Waterloo Terrace. This was materially
and conceptually consistent with the original design and creates a successful terrace to
Theatre Square. The Espresso Bar performs well in its current position, but is somewhat
hidden from passing riverside trade. It also produces an awkwardly tight entrance to the
Lyttelton Foyer, particularly used by those approaching from Theatre Avenue.

Component assessment:
Strata and towers: A
Original external windows: B
Altered external window (1997): E
The anchor stair: B
Ground floor main entrance (1997): E
Espresso Bar corner: B - Note: Espresso Bar interior is rated E
Ground floor stepped brick terraces: B
Theatre Square: D
First Floor main entrance: A

Policies / recommendations:
Potential changes
• Explore re-configuring the ground floor entrance sequence to re-align with the Olivier
  axis geometry, creating a clear entry point from both the East and West directions
• Consider an alternative location for the bookshop
• Improve the Anchor Stair as the key processional route up to Waterloo Terrace.
  Consider marking this compositional device with signage and new lighting.
• Explore how the Espresso Bar can strengthen its public visibility and connection with
  Theatre Square

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7. Raised area adjacent to the new bookshop, with planters - HTL 2008
8. Espresso Bar - HTL 2008
10. Bookshop enclosure - HTL 2008
12. Anchor stair and bookshop, winter - HTL 2008
External Edges: North Corner

Assessment: B

Observations

The language of horizontal stratification established at the western corner continues across the riverside façade and is the principal ordering element of the building from the perspective of the north bank and bridge.

At the National’s north corner, where the strata form narrow terrace balconies for the private realm of administrative offices, the relationship between strata and ground is made distinct and separate. Dominated by imposing raking struts, the north corner re-establishes the layers of building as clearly defined, receding floor plates of the private territories that present a clear contrast to the ambiguous relationship between building and ground at the public, western corner. Public terraces are separated from private balconies by the Olivier Theatre double escape stairs, which define the point at which the 45-degree axis of front of house meets the 90-degree axis of back of house.

The striking, coffered concrete soffit defines the undercroft of the projecting strata, where the raking struts meet the concrete framed brick in-fill volume that contains the Cottesloe Theatre, back of house communal facilities (blue/green rooms) on the corner with views of the river, and the kitchen /service areas that cater for the entire building. A first floor terrace wraps around this volume, intersecting with the buttresses. It flows out from within the Cottesloe foyer, and originally terminated along the north side by a semi-circular stair. Each of the two corners of the raking strut system is a beautifully resolved tour de force of in situ concrete work.

At time of construction, the cantilevered north corner appeared almost to project over the water as the river returned south, but the construction of the IBM building in the 80s loosened the architectural relationship with the river.

Alterations in 1997 removed the circulating road, divided the ground floor river frontage by inhabiting the undercroft of the porte-cochère (see West Corner above), created a parking area, and allowed for vehicular drop off to the new porte-cochère entrance lobby. The semi-circular stair to the first floor terrace was replaced, and a service enclosure to the waste-out area provided. The replaced stair includes a new concrete wall with board-marking of lower quality than the original.
1. Original Lasdun model, as if viewed from north bank. photo: Behr

2. Original Lasdun model, north corner. photo: Behr - NT Archives


4. Stage Door - HTL 2008

5. Administrative offices over raking struts - HTL 2008

6. Office strata - HTL 2008

7. Service Yard enclosure with new stair to right - HTL 2008

8. Waste facilities - HTL 2008
External Edges: North Corner

The changes to the river edge and subsequent 1997 alterations combine to highlight the increasingly unsuitable use of this corner. The monumental scale of raking buttresses exacerbates the evident lack of activity or public purpose appropriate for such a prominent riverside location. The building now lacks a contained base formerly provided by the pavement edge. Instead, the brick paving is made to extend beyond the point at which it ceases to reinforce the architecture and becomes a neutralizing presence in the public realm.

While the route from the east and between the Cottesloe Theatre and main foyers remains an important pedestrian thoroughfare, this route is now dominated by a service enclosure and unsightly, noisy wall-mounted retrofitted plant units that have accumulated outside the kitchens. The Stage Door entrance also suffers noise from car park ventilation units. A metal barrier has been installed for security and visual screening. Whist this is a reasonable solution, it appears incongruous in such a prominent public location.

The lack of civic presence of this north edge of the river elevation and a tantalisingly empty area between the river walk and the delivery route, exacerbates a sense of vacuity at a point where one might expect a more active, more celebratory frontage.

Component assessment:
Raking buttresses and elevated Strata: A
Olivier Theatre double escape stairs: C
Brickwork infill under elevated strata: C
Goods-in and Waste-out: D
1997 Alterations: E
Blue / Green room terrace: C

Policies / recommendations:
Potential changes
• Consider re-locating of the goods-inwards / waste-out service yard, subcontractor and blue badge parking area to a more suitable location, and explore a more active public usage for this prominent corner
• Improve the route to and visual connection with the Cottesloe
• Develop an expanded and building-wide waste strategy, combining FOH and BOH systems, re-using materials wherever possible, and implementing further recycling facilities. Coordinate with neighbourhood schemes

Refurbishment and alterations
• Explore options to remove wall mounted plant units and reduce kitchen fumes
9. Service Yard, with new enclosure and stair and accretion of kitchen extract equipment. Also lack of clear pedestrian route across brick paving. - HTL 2008


11. Public terraces meet private office balconies - HTL 2008
External Edges: Cottesloe Theatre Entrance

Assessment: B

Observations
The Cottesloe Theatre entrance is located between the concrete structure of the north corner and the steel-framed brick-clad enclosure of the workshop block. This complex junction is resolved by recessing the triple height glazed foyer frontage and enabling the character of each volume clear definition.

The Cottesloe Theatre was always intended to be independent from the Olivier and Lyttelton, but its location lacks a visible public street frontage. It is hidden from both North and South approaches, and signage has not resolved this lack of prominence and visibility.

Furniture outside the Cottesloe, principally used during intervals, is bland and uninviting and contributes to a poor quality public realm.

The width of the entrance creates a pinch point for the public, and is currently offers poor accessibility. The lack of lobbied entrance causes draughts.

Component assessment:
Glazed entrance: C
Steps and ramped access: D
Furniture: E

Policies / recommendations:
Potential changes
• Explore a more welcoming approach from south and north along Cottesloe Avenue
• Improve DDA access as part of a building-wide strategy
• Investigate provision of door lobby

Refurbishment & alterations
• A signage strategy should be implemented
• Replace furniture as part of site-wide strategy

Policies should be read in conjunction with those for Cottesloe Foyer and Auditorium.
External Edges: **Workshop Block**

**Assessment:** C

**Observations**

The workshop block is conceptually subservient to the epic landscape of the towers and strata of the public areas, but is nevertheless an important component of the whole. The view from the south end of Waterloo Bridge reveals a key compositional relationship between the sheer wall of the workshops and their staggered rooftops, and the volume of the fly towers beyond, balanced by the shallow vertical element of the aluminium-clad paint frame. At ground level however, the architecture limits the sense of activity on the avenues and Upper Ground.

Though austere, elegant and finely detailed, Lasdun’s choice of pale grey calcium silicate brickwork rather than board-marked concrete for this element of the building results in a less monolithic and implicitly more mutable language that is clearly differentiated from the public terraces, stair enclosures and fly towers of the river frontage. The taut surface of the steel framed brickwork box is contrasted by a bush-hammered concrete plinth, and the juxtaposition of the two materials is marked by a board-marked concrete beam and low slit windows with deeply modeled reveals.

In 1997 glass canopies were added on Theatre and Cottesloe Avenues. These structures, along with concealed lighting strips in the low slit windows, were intelligently designed to read as non-invasive, lightweight additions to Lasdun’s building. However, the canopies are reportedly underused and they appear rather flimsy compared with the sheer and powerful detailing of the brickwork and plinth.

**Component assessment:**

- **Workshop volume** (incl. concrete, brickwork, windows and openings): B
- **Aluminium Paint frame roof:** B
- **Car Park Ramp:** E
- **Glass Canopies:** E

**Policies / recommendations:**

**Potential changes**

- Consider opportunities to enliven the existing workshop edges, including the possibility of commercial and / or supporting activities along workshop frontages
- Strengthen identity and announcement of the NT on these facades

**Refurbishment & alterations**

- Enhance the streetscape in response to the changing urban landscape
1. Original NT sign at the south corner of the workshop block - 1970s

2. 1997 glass canopy - HTL 2008

3. South corner, now dominated by signage and barriers - HTL 2008

4. Concrete base to workshop brickwork - HTL 2008

5. Get-in on Upper Ground - HTL 2008
External Edges: Waterloo Bridge Link

Assessment: C

Observations
The circular stair and connection to Waterloo Bridge is found where the brick workshop building meets the layered urban landscape of the terraces. This junction provides vertical circulation to the Baylis Terrace as well as a means for escape from the Lyttelton, and perhaps as a consequence is poorly maintained and unpleasant. The concrete and floor surfaces appear damaged and dirty, and the stair announces itself as a secondary escape route rather than a possible connection to the upper levels.

The concrete bridge that connects to the terrace at mid level from beneath Waterloo Bridge now feels ungenerous and can be intimidating at night, whilst the staircases to the pavement level of the bridge and to the river walk are steep and uninviting as promenade routes. The bridge is tectonically incongruous, springing atypically from the edge of a cantilevered terrace, without any acknowledgement of the structural discontinuity between the bridge balustrade and terrace parapet.

It is interesting to note that in the published 1967 scheme, a grand stair connected a wider Waterloo Bridge link to Theatre Avenue, allowing a ceremonial and visually clear approach from the south.

The developing South Bank master plan offers new opportunities to connect the wider South Bank realm at river walk level and Waterloo Bridge level. The current mid–level connection beneath the bridge may become less important and its position may need to be reviewed.

Component assessment
Waterloo Bridge Link: D
Semi-circular Stair: C

Policies / recommendations:
Potential changes
- Investigate new means to circulate vertically to terrace level from Theatre Avenue
- Improve vertical and horizontal circulation to the terraces at this junction
- Investigate alternatives to the existing bridge connection in parallel with the Rick Mather Southbank Centre master plan.
1. 1967 scheme with grand stair links to Theatre Avenue and terraces

2. South-west elevation as built, with obscure vertical connections - HTL '08

3. Uninviting entrance to stair - HTL 2008

4. Stair at Waterloo Terrace level - HTL 2008

5. Link to bridge landing, breaking continuity of terrace parapet - HTL 2008
External Edges: Terraces

Assessment: A

Observations
The stepped terraces of the National Theatre are a key feature of its urban identity and are integral to the overall architectural composition. They remain however an under-used asset: as a vibrant and easily legible continuation of the public realm, the strata have not performed as Lasdun intended. Although the public terraces serve their purpose very successfully for audiences discovering them from within the building, they are less well used by the general public encountering the building from outside, either as urban gardens or as vertical circulation routes.

A key factor in the under-use of the building’s terraces is the illegibility of the external vertical access; staircases are poorly lit and uninviting and it is unclear that the terraces are public areas that are accessible from the exterior. The ‘anchor stair’ in particular has not properly fulfilled its intended purpose as an invitation to promenade up onto the terraces from the riverside. Waterloo Terrace, which is approachable from both the Bridge link and the anchor stair, was conceived as the primary pedestrian entry point to the building, elevated from the vehicular access below; but this entrance has always remained obscure and therefore underused. The design of the axial staircase, while of prime compositional importance, has compounded the problem with its low ceiling and blind turns, which offer an obscure route to a currently indistinct destination.

Although the terraces were conceived as fluid urban platforms on which the ‘urban theatre’ of public life could play out, the NT has recognized that the public does not easily move up to the terraces, except in the summer months when they become viewing platforms for Watch This Space. The need to create temporary connections as part of Watch This Space reinforces the point. Once on the terraces, the outlook is superb, but there remains a feeling of exposure and slight bleakness, which the current planting areas only partially ameliorate on all but the sunniest days.

The Terrace Café is tantalizingly close to Waterloo terrace and direct access would provide opportunities for the café to open independently (for private events or Late Lounge) without needing to staff the main entrances at ground level. In his 1989 Strategy for the Future document (see Appendix) Lasdun proposed staircases linking the two terraces at the ends of the upper terrace (where the parapets are not post-tensioned) and this has been recently re-proposed.

The Baylis Terrace is almost equal with the level of Waterloo Bridge, and a direct connection
1. Ed Berman’s Inter-Action Theatre Company beneath the “Anchor Stair”. Photo: Donald Mill, 1976

2. Theatre Square and terraces in winter - HTL 2008

3. Baylis, Terrace cafe and Waterloo terraces - HTL 2008

4. Terraces from Waterloo Bridge

5. Approach on axis via ‘anchor’ stair - HTL 2008

6. The low headroom of the anchor stair is dark and uninviting - HTL 2008
to this continuous piano nobile terrace of the Olivier stalls foyer is a tantalizing prospect. This would allow a direct relationship between the ‘upper landscapes’ and provoke a quantum increase in pedestrian use of the terraces as urban gardens and pathways, but must be considered with great sensitivity to the very high significance of the existing terraces.

**Material observations:** Parapets are primarily in-situ port-tensioned construction; cast and stressed before concreting contiguous areas of slab. Paving is 2” precast concrete slabs, laid on the 45° axis with open joints on stools, leaving them prone to instability. Many are now suffering damage and some weed growth. Some of the paving was refurbished in 1997, in a warmer shade of concrete. Elsewhere it is uneven and needs replacement. Balustrades are zinc-sprayed, cellulose-painted mild steel and remain throughout, although they appear to have been painted a bluer shade of grey than the original. Junctions between public terraces and private terrace balconies are marked by unsightly barriers that extend beyond the concrete and are visually obtrusive. Original furniture, including Bernard Schottlander ashtrays, and chairs and tables by Race, were consistent with interior front of house areas in quality and attention to detail. By contrast, current fixed furniture on Waterloo terrace appears institutional and unwelcoming. Original stainless steel signage was removed in 1997; there has been no replacement of named terrace signage although some original fire escape signs still remain.

**Component assessment:**
Composition, including concrete parapets: A
Painted steel balustrades: B
Concrete paving: B
Brick paviours: B
Planters: C

**Policies / recommendations:**

**Potential changes**
- Increase use of the terraces by improving vertical circulation, increasing visibility and ensuring accessibility (see Waterloo Bridge Link)
- Explore the strengthening of connections with adjacent streetscape and urban setting, investigating new public routes
- Investigate possible bridge-level link between Waterloo Bridge and the Baylis Terrace, connecting to the Olivier Stalls foyer – Note: Waterloo Bridge listed at Grade II*
- Re-consider locating permanent stair connections to the Terrace Café (see Lasdun’s Strategy for the Future, 1989 - Appendix)

**Refurbishment & alterations**
- Explore options for further greening the terraces, avoiding formal arrangements
- Investigate the use of wind break structures
- Careful consideration should be given to the setting out of any new paving in relation to the axis.

**Maintenance & management**
- Painting of balustrades should match original colour
7. Institutional fixed furniture - HTL 2008
8. Loose furniture on Waterloo Terrace - HTL 2008
10. Baylis terrace and cathedral window - HTL 2008
11. Fixed furniture - HTL 2008
12. Paving detail where new meets old paving - HTL 2008
External Edges: Roofs

Assessment: C

Observations
The National’s roofscape forms part of a key view from Waterloo Bridge on approach from the south, in which the two flytowers preside over the low, linear volume of the brick workshops.

Aluminium roofs are found over the Olivier and Lyttelton auditoriums, visible from the high-level terraces. The workshop block features twinned skylights along its length, with a larger rooflight over the paintframe.

Additional plant spaces have been added at roof level adjacent to the dressing room courtyard, but this has not detracted from significance. There are large areas of gravel roof space that are potentially habitable, although these are designed to support maintenance access only. The Deck, a function space on Level 69 (6th floor) that opened in 2008, required a new structural deck to be put in place to spread the load appropriately.

The architectural language of The Deck is sympathetic to the original building in its volumetric simplicity, differentiating itself through use of lightweight materials. Having been planned as a temporary, seasonal installation, there is now an aspiration to provide year-round use of this space, providing there are environmentally sustainable ways to maintain thermal comfort throughout the winter.

Component assessment:
Aluminium Auditorium roofs: B
Fly tower roofs: D
Habitable gravel roof space: D
Workshop roofs including skylights: C
The Deck: E

Policies / recommendations:
Potential changes
• Explore potential for greater use of the roofscape, with connections to the existing public terraces, ensuring that new uses do not detract from significance.
• New structures should ensure that key views to and from the building are not impeded.
• The compositional relationship between the flytowers and terraces should be maintained.
1. Key view of the NT roofscape, underlined by the workshop block - AR '77
2. Aluminium Lyttelton auditorium roof - HTL 2008
3. The Deck viewed from ITV building, 2008 - photo: Alan Williams
4. Skylights above workshops, with paintframe roof - HTL 2008
5. Olivier flytower with The Deck beyond - HTL 2008
6. The Deck at night, 2008 - photo: Alan Williams
**External Edges: Dressing Room Courtyard**

**Assessment:** C

**Observations**
The courtyard extends six storeys deep and provides daylight to the dressing rooms and workshops on the upper floors. There is a terrace on the fourth floor, at Wardrobe level, but this is only accessible from a single door and appears somewhat neglected.

There is significant staining on the concrete surfaces. A variety of window coverings internally (see Back of House: Dressing rooms) contribute to the untidy appearance of the courtyard.

The aluminium roof at the base of the courtyard is dirty and appears poorly maintained. The main supply air to the auditorium ventilation plant is located here.

**Component Assessment**
- Concrete surfaces: B
- Windows: B
- Roof to basement: C
- Wardrobe terrace: B

**Policies / recommendations:**

**Potential changes**
- Explore opportunities to increase use of the Wardrobe Terrace, improving paving and planting.
- Investigate potential to 'green' the courtyard, ensuring that planting does not damage concrete surfaces or detract from significance

**Maintenance & management**
- Establish maintenance plan for the concrete surfaces, ensuring that cleaning procedures do not to damage the surface texture.
1. Dressing Room Courtyard with Wardrobe terrace at top - HTL 2008

2. Concrete staining on dressing room facades - HTL 2008

3. Wardrobe terrace - HTL 2008

4. Wardrobe terrace - HTL 2008
External Edges: Basement

Assessment: D

Observations

The building rests on six structurally independent floating rafts, with foundations bearing in the gravel overlying the London clay. Substantial de-watering was necessary during construction, and the basements are still pumped continuously, with the grey water now used for flushing toilets. Pressure relief systems, which allow flooding of the basement if necessary, are in place to guard against flotation.

The basement level accommodates the below-stage areas of the Cottesloe and Lyttelton and Olivier Drum, as well as plant rooms and a 400-capacity carpark. The carpark layout and entry sequence has changed over the years, most recently as part of the 1997 reorganisation of the road system. Access to the carpark is currently via the double ramp on Upper Ground (one of which is redundant) and exit is on Cottesloe Avenue. The original ramp on Theatre Avenue has been covered over.

There are some un-used spaces within the basement that could be used for storage, including the Borsari oil tank that originally stored fuel for the boilers (since converted to gas). Storage needs to be carefully managed however, to avoid accumulation of dead storage.

Policies / recommendations:

Potential changes

- Investigate whether the basement can be used to strengthen connections within the building or allow an alternative servicing strategy to reposition the goods in/out yard away from the river frontage.
- Consider alternative routes into the carpark as part of strategy to develop the building’s urban edges

Refurbishment & alterations

- Utilise underground spaces for managed storage
- Improve accessibility to the basement foyer, including clearer announcement of location within the carpark.

Maintenance & management

- Improve energy efficiency of carpark ventilation system
1. Basement plant space - HTL 2008
2. Basement carpark - HTL 2008
3. Basement storage - HTL 2008
4. Basement carpark - HTL 2008
External Edges: Concrete

Assessment: A

Observations

The structural and material qualities of the concrete are integral to the character of the architecture and the concrete members are the most significant elements of the building. Three key surface textures can be seen, all using a pale grey colour chosen to rhyme with the stone of Waterloo Bridge, Somerset House and St Paul’s.

Board-marked concrete: The defining material of the National. Used internally and externally for vertical structural members, flytowers, balustrades and parapets, the formwork was sawn Douglas Fir on a six-inch module; the variable thickness of which was arranged at random by the contractors. All boarding is horizontal except on circular stairs where boards were organised vertically. The workmanship is of an exceptional quality and remains the high watermark for this type of work.

Parapets are pre-stressed to prevent shrinkage cracking; reinforcement near the surface is galvanised and covered with 1 ½ inches concrete. Vertical construction joints expressed; horizontal construction joints concealed at board joints.

The board-marked concrete is generally in good condition having been recently cleaned throughout the external areas, although cleaning itself presents a threat to the surface of the concrete. There is evidence of rust staining and stalactite growth, particularly in under-maintained areas such as escape stairs.

The NT is also experiencing increasing problems with graffiti, and some cleaning procedures provided by the South Bank Employers’ Group have caused damage to the surface of the concrete. Safe cleaning methods have been identified by the NT which are currently being implemented.

Temporary projects such as the turfing of the flytower by artists Ackroyd and Harvey in the summer of 2007 have been successfully undertaken without damage to the concrete.

Diagrid: The coffered soffit of the diagrid has a smooth concrete surface, achieved by casting into purpose-made fibre-glass pans 5’2” square with special triangular pans for perimeter conditions.
1. Concrete soffit at North corner - HTL 2008

2. Diagrid meets boardmarked column - HTL 2008


5. Smooth finish of the concrete diagrid - HTL 2008
External Edges: Concrete

**Bush-hammered surface:** Used on the concrete plinth beneath the steel-framed, brick-clad workshop block, with Newmarket flint coarse aggregate. The rusticated base is of high quality but is of secondary importance in relation to the board-marked and coffered concrete surfaces.

**Component assessment:**
- Board-marked concrete: A
- Diagrid: A
- Bush-hammered: B

**Policies / recommendations:**

**Refurbishment & alterations**
- The concrete defines the primary architectural elements and any alterations should be approached with extreme care.
- Alterations to the concrete must be closely coordinated with the structural engineers to ensure post-tensioned members are not disrupted.
- A method statement for repairs to rust stained reinforced concrete should be developed and thoroughly tested on non-significant in-situ sample areas before more general application.

**Maintenance & management**
- All maintenance and cleaning procedures should take utmost care not to damage the surface texture of the concrete, and should be carried out as infrequently as possible.
- Agree a cleaning method for the removal of graffiti, concrete stains and visible stalactites.
6. Boardmarked concrete detail


7. Staining of the concrete

10. Rust staining - HTL 2008

8. Graffiti cleaning (Southbank centre) - HTL 2008

External Edges: **External Windows**

**Assessment: B**

Transparency was another basic theme of the National Theatre design. Lasdun wished the windows to read as continuous screens held up by slender mullions. Fenestration details had to be made to wed with the spatial ideas and formal emphases of the design. Vertical struts were placed at varying intervals to accentuate the ratios and rhythms of the towers. Small horizontal filets were made between them at different heights ... to hold the panes in place and to maintain the musical pulse.

Curtis, ‘94

**Observations**

Window openings are approached with consistency throughout the primary facades of the building in which the horizontal elements of the concrete strata are intended to dominate. This includes both the large glazing in public Front-of-house areas, as well as the windows to the private areas of Offices and Dressing Rooms. All windows are float glass with anodized aluminum glazing beads, cellulose finish aluminum sills and mullions with mild steel core.

**Front of House:** These windows are designed to read as continuous screens between the stratified diagrid plates, and are set back from the bottom edge of the terrace balustrade in order to emphasise the horizontality of the strata. During the day, windows appear dark and recessive and the building’s interior is hard to visually penetrate; as night falls, the boundary between inside dissolves as the continuity of the diagrid soffit becomes clearly apparent.

As part of the 1997 changes to front of house, windows in the Lyttelton foyer adjacent to the Concert Pitch were moved outwards to create more internal space. While some of the rotational dynamism of the foyer space was lost in the process, the positioning of the new windows followed Lasdun’s 1989 design guidelines and remained below and set back from the bottom edge of the terrace above, while fenestration details were treated appropriately in relation to the original.

Some deterioration of the glazing system is apparent in the Olivier foyer windows, in which the silicone appears to have degraded causing staining on the panes. The single glazed, thermally unbroken windows are highly inefficient in terms of energy use.

**Administrative Offices:** Single glazed and aluminium framed with vertical sliding openings. These suffer from heat loss on shaded elevations and overheating on south-west facing facades.

**Dressing rooms:** Single glazed aluminium framed casement windows. Hinged at centre so that opening conflicts with internal venetian blinds.
1. Front of House window - HTL 2008

2. Front of House windows and pigeon prevention - HTL 2008

3. Office and Wardrobe windows - HTL 2008

4. Dressing Room windows into inner courtyard - HTL 2008
External Edges: External Windows

**Workshops:** Openings in the steel-framed brick structure of the workshops are either narrow punctures, such as the arrow-slit windows in the southern elevation, or mark the junction between two material systems, as in the horizontal windows between the workshops' bush-hammered concrete plinth and the brick face above. These are frequently masked from the inside by clutter stored up against the window. Windows at the corners of the workshop block feature louvred openings, providing some ventilation in summer. The use of single-glazing throughout causes significant heat loss during colder months.

**Component assessment:**
- Front of House windows: B
- Administrative office windows: C
- Dressing room windows: C
- Workshop: corner windows: C
- Workshop: arrow-slit windows: B
- Workshop: horizontal windows: C

**Policies / recommendations:**

**Potential changes**
- Every opportunity should be taken to improve the thermal performance of the windows
- Any future replacement windows should retain the principal characteristics of the original windows' appearance as far as possible. New windows should maintain the following:
  - same configuration of opening and fixed lights
  - anodised aluminium frame
  - visually similar sections corresponding to the original windows
- If moving windows outwards to create more space internally, 'the head of the windows...should remain below and set back from the bottom edge of the terrace balustrade above.' (DL Strategy for the Future, see Appendix)

**Refurbishment & alterations**
- The faces of the terrace balustrades should not have glazing fixed to them nor be obscured by glazing placed in front of them
5. Workshop corner window - HTL 2008
8. Corner window louvres - HTL 2008
6. Arrow slit window exterior - HTL 2008
7. Slit window between brickwork and concrete base - HTL 2008
10. Workshop roof lights - HTL 2008
11. Wardrobe workshop windows - HTL 2008
External Edges: Brickwork

Assessment: B

Observations
There are two types of external brickwork:
Pale grey calcium silicate brickwork in matching mortar, chosen to closely match the
colour of the concrete, is used for the workshop building and infill on the northeast
elevation. Although carefully and elegantly detailed, this relatively utilitarian material
was used to signify the conceptually secondary areas of the building, suggesting these
areas are subservient to the primary concrete structure of the ceremonial elevations.

The pale concrete and brickwork is grounded by the use of dark blue/purple engineering
brick as paving in both interior and exterior areas. Blue brick paviours on precast concrete
slabs and bullnosed blue engineering brick edging is also seen on the terraces to define
interior / exterior junctions.

Component assessment:
Pale grey brickwork (workshops and infill): B
Blue engineering brick: C

Policies / recommendations:
No policies (see Workshop Block)
1. Workshop brickwork - HTL 2008

2. Workshop and paint frame from Upper Ground - HTL 2008

3. 1997 glass canopy fixing to workshop brick wall - HTL 2008

4. Arrow slit window - HTL 2008

5. Engineering brick, added 1997 to match original - HTL 2008
External Edges: **Exterior Lighting**

**Assessment: C**

*At night...the edges dissolve away to reveal the coffered undersides of the strata... hovering into the interiors where people move about. The result is a monument that is also a non-monument – a building that splices together hieratic formality with a deliberate openness and availability.*

Curtis, '94

**Observations**

The original lighting strategy illuminated the vertical elements of the lift shafts, flytowers, and columns, allowing light from the foyers to spill onto the undersides of the exterior coffers so that the terrace strata read as dark horizontals across a glowing interior. In this transformative inversion of the daylight modeling of the building, the aspirations of the building to read as a permeable, porous institution are fully realized, while the key principles of strata and tower are reinforced.

Lift shafts and flytowers were uplit from fixtures on the publicly inaccessible roof terraces, while the ground floor columns were downlit by small cylindrical fittings set into the concrete pad where the columns meet the coffers. These have since been removed and it is recommended that fittings be re-introduced here. Elsewhere, some downlighting of the terraces was provided by fixtures recessed into the coffers (as in the interior) – these have also been removed.

Dramatic colour lighting has been introduced recently and has been met with great enthusiasm; the theatrical possibilities of changing light qualities are seen as an appropriate and positive way to reveal and announce the building in new ways.

A new lighting scheme in 2005 was created in-house, including projection and video projection on the flytowers. As LEDs were not suitable at the time for a building of the size of the NT, the 2005 design used conventional dichroic colour-mixing floodlights, with a very high cost in energy terms.

In 2007, a five-year partnership programme between the National and Philips Lighting commenced with the aim to build upon the success of previous external lighting strategies using Philips’ low-energy LED technology.

A ‘green switch initiative’, the partnership ties into the NT’s wider targets for sustainability, aiming to deliver a 70% reduction in the energy needed to illuminate the fly towers; with an estimated £100,000 per annum saving for the NT.
1. Original Exterior Lighting - NT Archive

2. Current flytower lighting - HTL 2008

3. Original lighting of anchor stair (uplighters removed 1997) - NT Archive

4. 2003 lighting scheme - photo: Michael Reeve 2003

5. Current workshop lighting - HTL 2008
External Edges: Exterior lighting

With the use of LED lighting, the use of colour on the flytowers can be achieved with far greater energy efficiency. A key issue is the visibility and positioning of lighting fixtures and infrastructure.

Vertical circulation points require clearer lighting emphasis and a re-examination of fitting types.

Component assessment:
Fly tower lighting: C
Lift shaft lighting: C
Diagrid lighting: C
Lighting of columns ground floor: C
Amenity lighting: D
Staircase lighting: C

Policies / recommendations:
In general, the long-term lighting strategies for the NT’s exteriors should aim to reconcile the principles of the original lighting with up-to date sustainable solutions. However, there is scope for dramatic new lighting schemes and temporary installations.

Potential changes
• Investigate re-use of the cylindrical downlighters and recessed uplighters for amenity lighting

Refurbishment & alterations
• Review the position of the new LED light fittings
• Review escape signage along with building-wide signage strategy and simplify
• Review surface mounted wiring on soffits when replacing terrace paving above

Maintenance & management
• Agree a building-wide lighting strategy including approach to use of LEDS throughout the theatre
• Develop the existing 5 year Philips simplicity lighting partnership.
• Aim to reduce energy output and consider H&S maintenance issues
1. Amenity lighting on anchor stair - HTL 2008

2. Cylindrical Lighting above Espresso Bar - HTL 2008

3. LED light fixtures visible from Baylis Terrace - HTL 2008

4. Raked struts lighting on Cottesloe Avenue - HTL 2008

5. Cylindrical light fixture with surface mounted wiring - HTL 2008

6. Amenity lighting on Olivier escape stair - HTL 2008
Front of House: Foyers

Assessment: A

The spatial layering observed on the exterior is also felt on the interior. Banks of stairs pass to the upper floors. Volumes open up as many as three levels at a time. The concrete skeleton...has here sidestepped its usual grid and box formula. Instead one finds rich sequences of form and space, flowing into each other, opening to admit more light, or closing to give a sense of protection. Elements shift and align in new relationships as one moves about the interiors. The magic of the river and the city is experienced as a series of vignettes framed by the overhanging soffits of the ceiling.

The Architectural Review, 1977

Observations

Conceived as the building’s ‘fourth theatre’, the foyers are magnificent public spaces. At their busiest in the late afternoon and early evening, the foyers are working increasingly hard to accommodate the range of events and services offered, including pre-show music, catering and exhibitions.

During the day the foyers are relatively quiet, and are failing to attract a more significant proportion of the estimated 20 million people who now pass along the riverfront every year. There is a need to improve the permeability and visibility of interior daytime activities without adversely affecting the architectural significance of the front of house.

Expanding public activities are placing new demands on the foyers and creating problems of security, staffing, and storage. The range of activities offered in the spaces has led to the accumulation of clutter, and inappropriate storage of furniture and equipment in architecturally sensitive spaces. The foyers have been adapted to accommodate events through installation of theatrical lighting and curtain tracks, seen for example in the ‘Cathedral Window’ area in the Olivier stalls foyer.

Elsewhere, the pressure to define revenue-generating catering activities from the rest of the foyer space has resulted in the installation of glass partitions, new wall and ceiling coverings and varying styles of furniture that sit uncomfortably with the material consistency and spatial fluidity of the foyers as conceived. The catering department is facing strong competition from the adjacent South Bank areas, and has found that giving a strong visual identity to the varied catering offer has increased associated profits.

The Education department, whose expanding remit will increase daytime use of the building, aims to return much of its activity back to the National Theatre building after years of off-site work in the temporary Doon Street cabins and the NT Studio. There is an ambition to expand the use of digital media as an educational and participatory tool, through installations such as the current Big Wall. It is anticipated that equipment such as this will become less spatially intrusive as technologies develop. The foyers must balance the need to remain vivid and current with the need to retain the unique architectural quality of the original spaces.
Architectural Elements
The following section reiterates Lasdun’s definition of the elements that each contribute to the unity and architectural character of the whole. Lasdun states that the spatial organisation of the foyers is generated by the axis of the Olivier, within which three distinct but interdependent elemental groups can be identified:

Primary Elements
Fair faced concrete structural members – walls, columns, piers, balconies, soffits and stairs

Secondary Elements
Bars, buffets, cloakrooms, box office and retail activities

Furnishings
Carpets, tables and chairs, signs, displays, bins etc. Artificial lighting is also an integral part of the design and atmosphere of the foyers.

To these elements must be added the temporary activities, public performances and general inhabitation of the spaces by the audience and by visiting members of the general public. These ephemera were seen by Lasdun as a crucial component of the architecture, an integral part of the visual texture and atmosphere of the foyers.

Policies / recommendations:

Potential changes
- Investigate the provision of new flexible spaces independent from the FOH foyers, that would not conflict with the needs and activities of the Theatres
- Investigate improving permeability into the foyer spaces
- Explore the potential to separate pre-theatre catering requirements from passing trade requirements, ensuring that the development of revenue-generating activities does not conflict with their primary role in supporting the theatres
- Develop a spatial brief to house the expanding education department within the main body of the NT
- Explore how temporary activities and components can most effectively enrich the foyers.

Refurbishment & alterations
- Develop hierarchical storage strategy and discreet location for front of house furniture and equipment to ensure these items are not visible within the foyer spaces

Maintenance & management
- Ensure foyer spaces are not used as temporary storage areas for removable items from the theatre spaces
Front of House: **Primary Elements**

**Assessment: A**

**Observations**
The primary elements are the fair faced concrete structural members - walls, columns, balustrades and diagrid floors - which define the principal spaces and articulate the material language and architectural character of the public areas. Lasdun described the primary elements as ‘the essential fabric of the building from which it derives its form and architectural coherence’ (Strategy for the Future, 1989). These are read in conjunction with the ‘controlling element’ of the diagrid soffit, which expresses the axis of the Olivier Theatre and gives human scale and grain to the foyer volumes. It is important that the interconnected space defined by these elements is not interrupted.

Bolt hole damage is now apparent on several surfaces, where original signage has been removed. Wiring and conduit have become visually intrusive in several areas where they have been fixed across concrete elements.

**Component assessment**
Concrete walls and columns: A
Concrete balustrades: A
Diagrid coffered soffits: A

**Policies / recommendations:**

**Refurbishment & alterations**
- Views through the interconnecting foyer spaces should not be obstructed.
- The diagrid must always read in its entirety and not be hidden.
- False ceilings and wall coverings should not be installed over the concrete.
- Structures and fittings should be kept away from columns and walls so that these elements are read in their entirety from floor to diagrid - particularly where there are recessed light fittings at the base, which should throw a soft light up the full height of the columns / wall.
- A set of detailed rules for wiring and conduit in sensitive areas should be developed prior to any further additions. Current non-original wiring and conduit should be re-examined. Wherever possible it should be concealed

**Maintenance & management**
- Concrete surfaces should be regularly cleaned
- Bolt holes should be carefully repaired
- Temporary signage and theatrical fittings should not be fixed to concrete elements
1. View into the Lyttelton foyer, AR 1977

2. Concrete diagrid and circular stair with vertical board-marking - HTL 2008

3. Concrete uplighting reveals the texture of the board marking - HTL 2008

4. Concrete balustrade, staircase soffit and diagrid soffit - HTL 2008
Front of House: Secondary Elements

Assessment: C (original)

Observations
The secondary elements are the bars, buffets, cloakrooms, box office and retail activities – elements that are relatively permanent but may need to change and adapt from time to time. These elements were refurbished throughout front of house in 1997. A material palette of steel and grey painted mdf panels replaced the original timber and hessian of the bars, buffets, cloakrooms and box offices. Although well designed and detailed, the new elements lack the tactility of the original and appear rather cold by comparison.

In box office and retail areas, large areas of grey board have been placed in front of the concrete as signage carriers. The scale and tonal coolness of these elements tends to compete with the underlying concrete.

The Mezzanine restaurant and Olivier Circle Café, originally designed as spaces architecturally consistent with the adjacent foyers, now incorporate secondary elements in the form of wall panels or dropped ceilings. The covering of the concrete walls and diagrid to demarcate retail-generating spaces has lessened the architectural significance of these areas.

Component assessment: (current)
Bars and Buffets (1997) - E
Box offices and bookstalls (1997) - E
Wall panels and false ceilings - E

Policies / recommendations:

Potential changes
- Secondary elements are subordinate to the primary elements and detailing should reflect this, particularly in the way in which these elements come into contact with the primary structural elements.

Refurbishment & alterations
- Design, materials and colour of secondary elements should be sympathetic to the concrete. Additional accents can be achieved by lighting
- Bulkheads should be set behind the diagrid beam, so that the supporting structure for the diagrid is always exposed
- Secondary elements should not include large areas of lining or facing material that obscure the primary concrete elements
Front of House: Colour

Assessment: C

Susan Lasdun advised on several of the colour choices and choices of materials, including the carpets of the foyers which blended purple with brown to be consistent with the ground materials on the outside terraces, and to harmonise with the main structure. There was also the notion of enhancing the landscape associations of the building, and both the mauve seats of the Olivier theatre, and the various browns and golds of the Lyttelton, were inspired by a visit to Greece and by the memory of heather, earth and rocks.

Curtis, ‘94

Observations

Colour was used to subtly enhance the warmth of the concrete throughout front of house. Reiterating the landscape metaphor of the primary forms, use of colour in the carpets, furniture and wall coverings suggested the hues of vegetation and earth against the rock-like concrete.

The deep mauve carpets that Susan Lasdun designed for the front of house areas were chosen to recede from the concrete as well as rhyme with the dark engineering brick base of the exterior ground surface. The colour recalls heather flowers against rock outcrops. Carpets were replaced in 1997 in consultation with Susan Lasdun, but although the pattern was the same as the original, the colour is too pale. Localized changes in the orientation of the pile have caused areas of unsightly patches of uneven tone known as ‘watermark’ shading. Junctions between strips of carpet are also suffering wear and tear and there are many areas of unsightly gaffer tape masking damage to the carpet edges.

Natural hessian wall coverings were replaced in 1997 with fabrics relating to the new colour coded signage for each of the Theatres (green for Lyttelton, Red for Olivier and Blue for Cottesloe).

Policies / recommendations:

Refurbishment & alterations

- Colours should adhere to Lasdun’s principles of recessive, natural shades
- Concrete should predominate – areas between recede
- The introduction of large areas of bright colour should be on a temporary basis only to maintain the primacy of the concrete surfaces
- The reinstatement of natural hessian and timber should be given consideration.

Maintenance & management

- Replacement carpet should be chosen with low potential for pile reversal. This can be minimized with the use of loop pile carpets or cut pile carpets with matte yarns
- Areas of damaged carpet should be replaced or repaired immediately rather than patched with gaffer tape
1. Original natural hessian wall covering - 1970s - NT Archive
2. Carpet - wall junction (1997 additions) - HTL 2008
3. Original Bar front 1970s - NT Archive
5. Engineers brick - HTL 2008
Front of House: **Furniture and Fittings**

**Assessment:** C

**Observations:**
Original fixed furniture and fittings, largely faced in dark Wenge veneers, remain throughout Front of House. These include Wenge bench seats with hide-covered inset cushions and mild steel supports, Wenge doors to the auditoriums, and polished stainless steel handrails. Doors are in a mixed state; those facing the foyers are in good condition while doors within the corridors leading to the auditoriums are suffering wear and tear or have been replaced with poorer quality copies.

Loose furniture has been changed many times over the years; currently it is predominantly grey circular tables with steel bases and tubular-steel chairs. These are visually inoffensive but somewhat corporate in feel; provision of seating is considered insufficient generally and could be rationalized to make more use of tables along the fixed bench seats. In the Lyttelton foyer, there are a varying types of furniture that aim to define the (free) music area from that of the (revenue-generating) buffet. The disparity of style and colour increases the sense of clutter. A more sympathetic loose furniture strategy is a priority.

**Component assessment:**
- Wenge and leather window seats - C
- Wenge auditorium doors - C
- Wenge and stainless steel balustrades - C
- Steel frame tables and chairs - E
- Lyttelton foyer loose furniture - E
- Concert Pitch upholstered seating - E

**Policies / recommendations:**

**Potential changes**
- More use should be made of tables adjacent to fixed window seats
- A greater distinction between circulation spaces and gathering spaces could be explored with different densities of loose furniture

**Maintenance & management**
- Original window seats, balustrades and doors should be retained and maintained
1. Wenge balustrade lighting boxes - HTL 2008
2. Wenge Auditorium doors - HTL 2008
3. Loose furniture, Olivier foyer - HTL 2008
4. Wenge and leather window seats - HTL 2008
5. Lyttelton cafe furniture - HTL 2008
Front of House: Signage

Assessment: C

Observations
Orientation within the public foyers has always been problematic for the uninitiated. The original interior signage was designed through a close collaboration between the architect and designer Ken Briggs, who had shaped the visual identity of the National Theatre over many years of poster and programme design. The signage was understood to be an extension of the architecture, the polished steel lettering appearing to float above the surface of the concrete. A clear hierarchy of signage was established: large titles, in 7" high letters were fixed to the concrete, identified the architectural volumes of the auditoriums, terraces and lift shafts, while smaller 4" letters and 3 ½" battens on staircases provided directional signage. While elegant and beautifully lit, there were complaints about the difficulty in seeing these reflective surfaces from all angles and by the 90s the signage was not considered DDA appropriate.

In 1997, the front of house signage was replaced throughout, although some remaining examples of the original are to be found in the Olivier auditorium and some terraces and escape stairs. The current signage has adopted a colour-coded approach to distinguishing the three theatres with the use of painted melamine boards. These are visually prominent but have not fully solved the ongoing problems of orientation around the complex spaces of the building.

The entrance area has an excess of signage - both permanent and temporary - that is detrimental to the architectural qualities of the space. Temporary signage such as security notices on small floor-mounted stands are unsightly and clutter the space - these need to be carefully controlled. Unsightly marks on the concrete remain where steel lettering was removed.

Component assessment:
Original Signage (where present) - C
1997 new signage - E
1. Original stainless steel signage - AR 1977
2. Original stainless steel batten signage - NT Archive date unknown
3. Original terrace signage - NT Archive date unknown
4. Markings on concrete where original signage has been removed - HTL '08
5. Original access signage - NT Archive date unknown
6. Original lift signage - NT Archive date unknown
Front of House: Signage

Policies / recommendations:

Potential changes
- Develop a revised strategy for signage based on current observations and usage
- Re-appraise the qualities of the original 1977 signage and consider the possibility of reinstatement, albeit with clearer tonal contrasts.
- Develop a clearer hierarchy between volumetric and way-finding signage
- Explore alternative banner positions that are less intrusive against the concrete surfaces
- Explore projection of coloured show-specific signage and lettering
- Explore use of lighting to emphasise permanent signs

Refurbishment & alterations
- Exhibition displays - posters and banners should not cover large areas of concrete within foyer spaces
- Ledges and leaflet stands that obstruct light from recessed floor fittings should be removed

Maintenance & management
- Small temporary notices - these should be fixed to purpose made fittings and generally minimized wherever possible.
7. Original signage and lighting - NT Archive date unknown

8. Original signage in line with board marking - NT Archive date unknown


Front of House: Displays

Assessment: C

‘Where playbills or performance photographs may be hung for maximum effect, bolt holes have been cast into the concrete to receive specially designed brackets. These brackets have been provided in just the right positions: the building cannot accept the haphazard and the theatre management must come to understand the discipline of the building.’
AR ‘77

Observations

Original tubular steel leaflet stands and wheeled information stands, designed to appear consistent with the polished stainless steel handrails, remain throughout. Simple and discreet, these relate to the primary elements in an appropriate and successful way.

The original poster displays were replaced in 1997. They were designed to complement the bar and box office design. Currently, posters are fixed to large areas of full height grey board, which obscure the concrete walls.

Exhibition advertisement banners are currently hung in front of principal concrete columns in the foyers. Left permanently in situ, the banners undermine the architectural clarity and simplicity of the foyer spaces and projected solutions to this type of regularly changing signage could be investigated as an alternative.

Temporary advertisements and security notices on small floor-mounted stands are unsightly and clutter the space - these need to be minimised.

Policies / recommendations:

Potential changes

• Explore projection of coloured displays to replace banners
• Explore alternative banner positions

Refurbishment & alterations

• Exhibition advertisements should not conceal large areas of concrete within foyer spaces
• Ledges and leaflet stands that obstruct light from recessed floor fittings should be removed
1. Original leaflet display and poster - NT Archive date unknown

2. Original leaflet display still in place - HTL 2008

3. Olivier bookstall (added 1997) - HTL 2008

4. Posters and ice cream stand - HTL 2008

5. Book display cabinet - HTL 2008

6. Current loose and fixed displays - HTL 2008

7. Exhibition poster hung over column - HTL 2008
Front of House: Lighting

Assessment: B

...the technique and drama of stage lighting extends through the auditoriums into the foyers and on to the outside. Thus the lighting celebrates the social occasion and its participants: the theatregoer becomes the actor, the public space his stage...The juxtaposition of the vertical elements and their visual priority was the starting point of the design. The massive columns that cut their way, layer after layer, through the building are lit from their bases. The light rises with the columns illuminating the ceiling pads they support thus making them dominant in the surrounding spaces...

Tony Corbett, AR '77

Observations

Artificial lighting was an integral part of the design of the foyers and played a critical role in emphasising the architectural characteristics and shaping the atmosphere of the spaces. Lasdun stressed in his ‘Strategy for the Future’ that ‘lighting should be low, in order to give the concrete warmth and reveal its texture rather than to light it brightly.’ Warm incandescent lighting was used throughout, concentrated around bars, buffets and circulation to give sparkle and accentuation.

Columns: Concrete members were uplit to emphasise their structural function and surface texture from a specially designed fitting recessed into the floor slabs, in which a row of adjustable lights were set under a louvre to reduce glare. The uplighting remains but lamps have been replaced with a fitting that throws a harder-edged beam onto the concrete rather than the soft warm glow of the original.

Accent lighting: Photographs, posters, column edges and floors were lit with Concord Quartet Major spots with 12v/240W PAR 56 clamped to a bright polished T-shaped stainless steel tube wrapped around a rectangular transformer box finished in dull stainless steel. Accent Lighting display panels and signage was also provided on stem and ‘eyebrow’ light bars with small stainless steel fittings using PAR 36 lamp. Ambient lighting was provided with Concord downlighters recessed into coffers, laid out to give emphasis and intensity to the main entrances to the foyers and auditoriums.

The Diagrid: Soffits were not lit directly but washed by reflected light columns and walls to reveal deep modeling. Cylindrical fittings recessed into coffers aimed to avoid light spill on coffer edges. Exterior areas of coffering received reflected light to reveal the continuity between interior and exterior.

Staircase lighting: SEFT (scintered electrode fluorescent tubing – a form of cold cathode) fittings were concealed to light the central spine of the curved staircases, leading the eye to the level above. SEFT fittings were also used on the stairways to the Olivier and on the outside of the stair within the enclosing walls. Staircases were further lit with recessed reflector lamps at half landings, to provide sparkle and by the directional PAR 56 downlighters, edgelighting the external concrete surfaces. Fluorescent tubing was also used at low level in the bars and foyers to delineate the edge...
1. Original polished stainless steel lamps on slender bar - AR 1977


4. High energy, visually dominant theatrical lighting. - HTL 2008

5. SEFT recessed staircase lighting - HTL 2008

6. Original recesses, now using lamps that throw a hard edge - HTL 2008
Front of House: Lighting

of these spaces – under the window seats and the balustrades. The tube lighting is here concealed beneath dark Wenge timber boxes that are fixed to the upstands, or form part of a window seat.

Changes to the lighting of the foyers:
Response to the original lighting of the foyers was mixed; it was considered architecturally striking but many found the light levels too low, particularly for reading of programmes. Increasingly onerous DDA requirements have resulted in the need for brighter light levels throughout the foyers, which are much more intensively used than when the building first opened. The exhibition space, concert pitch and ‘Cathedral Window’ in the Olivier foyer have all seen more intensive levels of activity that require flexible lighting possibilities.

The 1997 refurbishment included an extensive redesign of the foyer lighting, aiming to combine brighter lighting with more flexible management. Although the raised light levels provide better conditions for reading and satisfy access requirements, the lighting of the foyer was the greatest cause for concern amongst consultees with regard to the architectural significance of the interior spaces. The principle of flexibility has not proved entirely successful, and has resulted in a proliferation of different lamp types that have come to dominate the foyers. Key concerns include: over-intensity, coldness, obtrusive infrastructure and fittings, difficulty of maintenance and over-diversity of lamp types.

Over-heating of light fittings is staining concrete internally and causing problems for thermal comfort and excessive energy use. A rolling programme of lamp replacement is underway to increase the energy efficiency of the existing lighting system – but it is clear that a major re-appraisal of interior lighting strategies is now needed.

Policies / recommendations:
Potential changes
- Develop a clearer understanding of the original lighting principles
- Develop a comprehensive internal lighting strategy
- Emphasise “atmosphere” while providing sufficient amenity lighting
- Reduce energy consumption
- Refurbishment & alterations
- Develop the existing 5 year lighting partnership with Philips Electronics
- Replace existing lamps with more efficient types, with consideration given to LEDs
- Review and rationalise all illuminated escape signage
- Maintenance & management
- Consider energy efficiency, lamp life and H&S issues in relation to lighting strategy
- Consider specialist management of front of house lighting as a ‘fourth auditorium’
7. Original lighting bar with polished stainless steel lamps - NT Archive

8. 1997 light fixtures are visible in the diagrid - HTL 2008

9. 1997 Theatre lights - note traces of original signage to right - HTL 2008

10. Light fixtures at the top of columns are unsafe to maintain - HTL 2008

11. The space is cluttered with different types of light fittings - HTL 2008
Front of House: Entrance Foyer, Bookshop and Box Office

Assessment: E  (new additions)

Observations
The original entry sequence provided vehicular drop-off and access to the interior via a lobbied entrance beneath the porte-cochère, on axis with the Olivier. The ground floor entrance foyer was re-configured in 1997, with the glazed enclosure of the bookshop occupying what the original porte-cochère to the main vehicular entrance. The detailing of the 1997 space is skillful and intelligent, but the sense of ceremonial arrival has been lessened by the breaking of the 45 degree entrance axis. An existing column obscures the box office / information area from the main doors, and dominant signage on this surface has been necessary to aid orientation. Additional temporary signage, advertisements and information stands clutter the space. The bookshop and box office obstruct views towards the river walk, with posters and screens masking the otherwise transparent glass addition. While the bookshop has been successful in its current position, its layout does not maximize retail efficiency and is now too small to cope with increased demand.

The lack of lobbied entrance also creates a cold draughty environment, particularly problematic for staff working in this area in winter.

Slate flooring demarcates the newly-created internal space of the entrance foyer and box office area. Natural stone occurs nowhere else in the building’s interior and is a surprising choice next to the existing engineering brick floor surface.

The temporary, interactive ‘Big Wall’ currently blocks views to the east and is a bulky item.

Policies / recommendations:
Potential changes
- Consideration should be given to reinstatement of axial entrance arrangement
- Develop strategy for new front of house requirements, considering the following:
  - Addition of entrance seating, ticket machines, internet access and ATM
  - New contemporary and efficient Box Office / Information workstation space
  - Rationalisation of box office administrative storage
  - Inclusion of electronic signage, information and display
- Explore expanding the facilities for the entrance foyer along the river frontage to reduce pressure on the entrance and restore visual clarity along the axis

Maintenance & management
- Remove clutter, integrate technology, improve energy efficiency & sustainability, ensure ease of maintenance, respond to DDA requirements
1. Original lobbied entrance, triangulated around the axis - AR 1977


4. View towards Lyttelton Foyer - HTL 2008

5. Bookshop wall, obscuring the view towards the river - HTL 2008

Front of House: Basement Foyer

Assessment: C

Observations
As a key mode of arrival to the building is by car, the public foyers extend to the basement, where the front of house is indicated by high quality board-marked concrete and low, atmospheric lighting.

On approach to the basement, storage areas were created in 1997 by enclosing areas beneath the stairs with new brickwork. This does compromise the architectural significance of the space, however it might be argued that in this area, items stored visibly beneath the stairs is a greater detriment to the quality of the architecture. This will nevertheless need to be reconsidered in light of future front of house strategies.

Policies / recommendations:
Potential changes
• Strengthen identity of entrance foyer from within the basement areas
• Improve accessibility to/from the carpark
• Consider removal of brickwork addition in the context of new storage provision elsewhere
1. Discreet ticketing machine within dramatically lit space - HTL 2008
2. Staircase from foyer to basement - HTL 2008
3. Fixtures are consistent with ground-level foyer - HTL 2008
4. Brickwork added in 1997 to create storage enclosures - HTL 2008
Front of House: **Lyttelton Foyer**

**Assessment: A**

**Observations**

The Lyttelton foyer is a triple-height space intersected by the gallery foyer and Terrace Café at higher levels. On the ground floor, the foyer has to accommodate a number of competing areas during the busy pre-show period: the Concert Pitch; Long Bar; Lyttelton café and Espresso Bar.

In 1997, the window adjacent to the music area was moved outwards to provide more space internally, and this has been successful in relieving some of the space pressure, although the area still suffers from overcrowding in the evenings. The new window was detailed appropriately and adhered to the principles of the original, but has loosened the once tightly enclosed directionality of the Lyttelton foyer.

A new section of timber floor was added to the concert area, breaking the material continuity of the floor surface between inside and out. Even more intrusive is the curved stage area that was installed in the 1999 Transformation Season and never removed. It is inappropriate in form, material and colour and undermines the significance of the space.

A new glass lift was installed in 1997. The detailing is intelligent and skilful, and although its location creates an uncomfortably tight relationship with the adjacent external window it is a good solution to a difficult problem and an important improvement to the accessibility of the building.

The gallery foyer is less well used than the ground floor, and the NT is keen to encourage people to move up to the gallery level to relieve pressure on the ground floor. The area includes white partitions and wall panels on which to mount the temporary exhibitions, as well as stainless steel lighting tracks.

Both the Long Bar, the Lyttelton cloakroom and the bar at gallery level are closed during the day, shut down with security screens. This generates a cold and unwelcoming atmosphere in these areas.

There is a broad problem of lack of permeability into and through the Lyttelton Foyer, entry being via the narrow Espresso Bar or main entrance.
1. Triple-height Lyttelton foyer at time of opening - AR 1977

2. Lyttelton foyer today - HTL 2008

3. Concert pitch (stage added 1999) and new window - HTL 2008
Front of House: Lyttelton Foyer

**Component assessment:**
Overall space: A  
Concert Pitch: E  
Long Bar: E  
New window: E  
Glass lift: E

**Policies / recommendations:**

**Potential changes**
- Consider alternative locations for some uses to relieve the foyer of its competing pressures
- Explore options to allow for greater permeability between the interior and exterior of the foyer
- A comprehensive Front of House lighting strategy should be developed, balancing the reinstatement of original lighting principles with DDA responsive and reduced energy consumption

**Refurbishment & alterations**
- Investigate re-design of secondary and tertiary elements to reduce clutter and visual confusion
- Investigate provision of food at gallery level in order to relieve pressure on ground floor foyer space

**Maintenance & management**
- Ensure foyer spaces are not used as temporary storage areas for removable items from the theatre spaces
4. 1997 new window; the line of the original window, cutting across the diagrid, is just seen top right - HTL 2008

5. Exhibition level foyer - HTL 2008

6. Unsightly storage under the stairs - HTL 2008

7. Lyttelton foyer gallery - HTL 2008
Front of House: Lyttelton Cafe and Espresso Bar

Assessment: E (interior fitout)

Observations
The Lyttelton café and Espresso Bar were refurbished in 2007, with the installation of a new counters and additional seating. An enclosure was added to mask queues to the café and provide a bar / seating area dedicated to customers of the café. The café has been operationally successful, but the enclosure does create some problems for the overall space of the foyer, particularly when the café is closed for much of the day. Fluidity between various areas of the foyer has been compromised through the creation of distinct catering zones, in which rope cordons are required to indicate daytime closure.

The use of bright neon and large illuminated signage draws attention to the buffet, but appears over-branded for the space and in conflict with the architectural subtlety and connectivity of the building. The light fittings running across the geometry of the diagrid are not successful.

The Espresso Bar, which has occupied the original box office since circa 1989, is well designed and well used but disconnected from seating in the Lyttelton foyer. It is also at a raised level, connecting with the ground floor terrace overlooking Theatre Square in summer months, but providing poor accessibility to Theatre Avenue and the rest of the foyers.

Policies / recommendations:
Potential changes
- Explore combining the Lyttelton Café and the Espresso Bar, increasing permeability at the west corner
- Explore possibility of alternative or supplementary locations for front of house catering
- Investigate possibility of extending the Lyttelton Cafe along Theatre Avenue

Refurbishment & alterations
- Provide signage and lighting around Lyttelton cafe area that does not detract from the architectural significance of the foyers.
Front of House: **Terrace Cafe**

**Assessment:** E (interior fitout)

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**Observations**

The Terrace Café originally functioned as a self-service buffet but was changed to a waiter-service restaurant in 1991. At some point prior to this the original carpet was replaced with timber parquet, and in 1997 a lift was installed and glass enclosure added for daytime security. Numerous interior fit-outs have taken place over the years, most recently in October 2007, when the bar area was developed and new furniture installed internally and externally.

The current re-decoration has used a simple palette of materials that do not detract from the original architecture. It is noteworthy that following a conceptual proposal by interior designers, the detailed design was successfully executed in-house by the Production department. This should be seen as a useful example of the National harnessing its own talents to produce an environment that reveals a sensitive understanding of the overall qualities of the building.

The Terrace Café is spatially separate from the rest of front of house, with its own internal staircase and lift. While this means it is relatively hidden and hard to find, it also provides a good location for private events, after-show parties and the Late Lounge. At present, this requires the entire foyer to remain open and staffed, but there is an opportunity to provide exterior access to the Terrace Café from Waterloo Terrace, enabling the café to operate independently when necessary.

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**Policies / recommendations:**

**Potential changes**

- Explore options to provide permanent external independent access into Terrace Café independent from the foyer.
- Address toilet provision and DDA requirements as part of any future changes

**Refurbishment & alterations**

- Ensure that future refurbishment follows guidelines for secondary elements, in sympathy with the original architecture
1. Terrace cafe balustrade - HTL 2008

2. Bar area - HTL 2008


4. Terrace cafe exterior - HTL 2008

5. Glass partition, added 1997 - HTL 2008
Observations
The restaurant originally revealed the exposed concrete soffits and walls of the adjacent foyer spaces. A glass screen separated the restaurant from the foyers below; this was removed in the 80s and replaced with a steel handrail. The more formal dining offered by the restaurant was indicated by furniture and by paintings hung directly on the concrete.

A number of interior design changes have occurred, most recently in 1992, when a major refurbishment saw the installation of timber wall cladding panels and a white suspended ceiling concealing the coffers. A new curved glass screen was also installed at the entrance.

Although the fit out has improved commercial revenue (suggesting that it is now more popular with audiences), the alterations have created an independent environment that in its detailed language has little architectural relationship to the foyers and has threatened the significance of the overall space. The acoustic of the space is too reverberative.

Policies / recommendations:
Refurbishment and alterations
• Future alterations should ensure that interior design elements do not mask the primary concrete elements of the foyer spaces
• The character of the catering offer should take account of and complement the architectural framework of the original fabric
1. Original restaurant with exposed concrete - NT Archive date unknown

2. Current fit-out with dropped ceiling - HTL 2008

3. Timber wall panels - HTL 2008


5. Current restaurant interior - HTL 2008

Front of House: Olivier Foyer

Assessment: A

Observations
The Olivier foyer spans three floors, corresponding to the stage, stalls and circle levels of the theatre. The stage level foyer accommodates the Olivier cloakroom and an exhibition space, while the box office and bookstall are found in the Stalls foyer, which leads onto the large Baylis Terrace. The spaces are defined by a strong sense of symmetry, reinforced by the double stair running through the core of the spaces and by the pair of twinned lift shafts flanking the axial corner inflected to the west. At stalls level, this relationship reaches focus in the ‘Cathedral Window’, a key moment within the foyers. The architectural significance of the composition has however been threatened by a number of accretions within the space.

Throughout the foyer, the current lighting system – both in terms of light levels and type and number of fixtures – is regarded as unsympathetic to the architecture. This is particularly true of the Cathedral Window area, which is under pressure to perform as a separate function space, ocasionally cordoned off and defined with curtains and theatrical lighting. Curtain tracks are visually obtrusive and not aligned with the diagrid. The 1997 box office, bookstall and signage are uncomfortable in relation to the concrete (see sections on Secondary Elements and Signage). At Circle level, a well-detailed glass enclosure has been added to create a small meeting space, the Ashcroft room.

Component assessment:
Overall foyer spaces: A
Box office and Bookstall: E
Signage, display and furniture: E
Bars: E
Ashcroft room screen: E

Policies / recommendations:
Potential changes
• A comprehensive lighting strategy should be developed (see Lighting)
Refurbishment & alterations
• A consistent design strategy for the box office, bookstall and bars should be developed in line with new guidelines for ‘secondary elements’
Maintenance & management
• Temporary fixtures should be designed so as to be demountable when not in use
• Ice cream and programme stands should be stored out of sight when not in use
1. Olivier box office - HTL 2008
2. Cathedral window - HTL 2008
3. Olivier cloakroom - HTL 2008
4. Exhibition area adjacent to cloakroom - HTL 2008
5. Curtain tracks and lighting bars - HTL 2008
6. Olivier circle level - HTL 2008
Front of House: Circle cafe

Assessment: E (interior fitout)

Observations
As in the Mezzanine restaurant and other catering spaces, the Circle Cafe was architecturally consistent with the rest of the foyers at the time of opening. In 1997, the cafe became a waiter service restaurant, when the current mural wall panels were installed in front of the concrete, but did not prove commercially successful. In 1999 the café re-opened as a self-service café with the existing murals remaining.

As in the Mezzanine restaurant, a glass screen, parquet flooring and walls panels have been used to define the space from the associated foyers – but again the result is of an overly branded space, lacking empathy with the wider foyer environment.

Policies / recommendations:
Refurbishment & alterations
• Future alterations should ensure that interior design elements do not mask the primary concrete elements of the foyer spaces.
• The character of the catering offer should take account of and complement the architectural framework of the original fabric.
• Consider use of rich colour and texture in less permanent elements such as fabrics, lighting and furniture, working in sympathy with the qualities of the concrete.
Front of House: Service Spaces

Assessment: C

Observations
Front of House corridors leading to the auditoriums and toilets were originally lined in natural hessian. By 1997 these surfaces were suffering wear and tear, and most linings were replaced with fabric corresponding to the new colour-coded strategy for the three theatres (green for Lyttelton, red for Olivier, blue for Cottesloe).

On the ground floor, telephone kiosks are lined in Wenge veneer, consistent with fixed furniture and doors throughout front of house. These are now suffering wear and tear and require renovation.

The position of male and female toilets were swapped some years ago, and renovated as in-house projects with bland and poor quality fittings. Front of house toilets now need refurbishment, using materials appropriate to the very high significance of the public areas.

Component assessment:
Corridors: C
Toilets: E
Telephone Kiosks: C

Policies / recommendations:
Refurbishment & alterations
- When replacing wall coverings, the possibility of reinstating natural hessian should be considered
- The use of colour in the foyers should be approached with care
- Wenge surfaces should be refurbished to the quality of the original
- A clear design strategy for front of house toilets should be developed, appropriate to the high quality and significance of the foyers.
1. Original hessian wall coverings - date unknown - NT Archive

2. Green hessian wall covering in the Lyttelton foyer - HTL 2008

3. Lyttelton toilets - HTL 2008

4. Wenge veneered telephone kiosk - HTL 2008

5. Olivier toilets - HTL 2008
The Theatres

The National’s three auditoriums have distinct architectural characteristics and theatrical capabilities. Whist a certain amount of controversy has surrounded the two larger auditoriums, this document acknowledges the position of the current artistic directorship, which views the three auditoriums as successful spaces that each suggest different ways of making theatre. Rather than rehearse the past debates around their theatrical effectiveness therefore, the focus of the Conservation Plan analysis is to assess the architectural significance of the auditoriums, and to identify where this may be under threat.

The Olivier and Lyttelton will be divided into Auditorium and Technical, which includes Stage, Structure and Equipment. The Cottesloe will be divided into Foyer and Auditorium.

The technical infrastructure of all three theatres has been modified and developed over time by the in-house staff on very tight budgets, largely without closure of the theatre. Only the key changes to equipment of high significance is noted here. The assessment of significance of technical equipment, is guided by the National Register of theatre equipment installations, which has been compiled by the ABTT and the Theatres Trust. Although the register is yet to be ratified by English Heritage, it has been put together by the leading experts in the UK and we would therefore recommend that it is referred to as a benchmark. Note that the NT has not been involved in this.

Olivier and Lyttelton
The general issue for both theatres is the need to satisfactorily reconcile the necessary technical and production-driven changes to the auditoriums’ fabric, with the impact on the original conceptual intent of the spaces.

The key shared issues are highlighted below, to which the same policies and recommendations apply:

- There are markings on the concrete following temporary installations.
- The alteration of aisle seat lighting (from pigmy bulbs to LED’s) provide inadequate lighting of seat numbers due to the use of blue light on stainless steel, and have disrupted the original warm atmosphere
- Some acoustic and lighting alterations detract from the original character of the auditoriums.
- There has been an accretion of technical equipment such as lighting bars that have been installed on elements of high architectural significance

In the Olivier, a walkway has been installed around the balcony for focusing projection equipment and lights, but in the Lyttelton this is undertaken with the use of harnesses from over the top of the balcony. This suggests a discrepancy in technical management between the two auditoriums.
General policies / recommendations:

**Refurbishment and alterations**
- Establish a clear set of auditorium design principles and develop customised technical components for the auditoriums that can be added and removed when necessary. This strategy may require locating discreet fixing points within the existing concrete.
- Develop strategy for conducting impact assessment with regard to alterations (discuss).

**Maintenance and management**
- Carry out access audit. Develop a brief for alterations and wheelchair provision, and this will require same assessments as above.
- Develop the management system for future alterations or modifications.
- Exposed wiring should be rationalised and where possible concealed.
Olivier Theatre: Auditorium

Assessment: A

We searched for a single room embodying stage and auditorium whose spatial configuration, above all else, would promote a dynamic and emotional relationship between audience and actor – between a fixed architectonic geometry of vision, acoustics and concentration and the chance irregular demands of dramatic performance.
Denys Lasdun, AR ’77

Observations

Referencing the Greek Theatre of Epidaurus, the Olivier is a 1160 capacity open-stage theatre, with an auditorium arranged in a 90˚ arc. The sense of convergence is focused by the steep rake and angle of side walls, and there is a strong unity between the stalls and upper tier.

The overall architectural character of the Olivier has generally survived well. Although temporary black coverings mask the concrete structures adjacent to the stage, it is acknowledged that for certain types of productions the masking is essential.

The dark acoustic covering and walkway attached to the balcony front lessens the sense of enclosure generated by the pale concrete. However, remedial acoustic treatment was necessary to ameliorate reflections back to the stage. The accumulation of material and equipment on the circle balustrade, whilst theatrically necessary, has nevertheless been detrimental to the architectural characteristics of the space.

The large sound desk is currently positioned off-centre in the theatre, in place of original wheelchair spaces.

Board-marked concrete frames the space as in foyer areas. Some detrimental markings are found in the upper circle; these are thought to have been left by duct tape after temporary lighting installations.

Original wall panels were natural hessian-covered – these have now been replaced with dark grey acoustic material.

Steel-framed, plaster ceiling panels feature as suspended elements, angled to reflect sound and mask the lighting bridge. The acoustic ceiling is raked as a concave echo of the bowl of seats beneath it.

Seating was designed by Heritage and Race (Race Furniture Ltd) in close collaboration with Lasdun. A carpeted plinth with radial diffuser supports the seat. Seating is considered to be comfortable and the integrated ventilation system continues to work well. Upholstery has been replaced at different times and there is some mismatch across the auditorium, but overall the seating is well maintained and successful.
Olivier Theatre: Auditorium

House Lights
General lighting to the seating is from ceiling panes overhead with Quartet Majors fittings, set at approximately 10° off the vertical, so that the light shines from very slightly behind the public when they are seated.

At the rear of the Olivier Theatre the acoustic panels are gently uplit; some from adjacent panels or from units mounted on the four stage lighting chandeliers; which also contained a number of 5.5v PAR 36 units, providing pencil beams of highlighting within the banks of seating, as well as playing on the low dividing concrete walls. (Corbett)

Component assessment:
Concrete: A
Acoustic materials: E
Wall panels: D
Acoustic ceiling: B
Seating: B
House lights: B

Policies / recommendations: (See also general policies for the Theatres)
Refurbishment & alterations
- Develop strategy to minimize permanent technical equipment on concrete surfaces while meeting theatrical needs.
- Develop strategy for conducting impact assessment with regard to alterations
- Investigate different position or smaller alternative for sound desk
- When re-upholstering the seating, care should be take to match the original warm heather colour.

Maintenance & management
- Avoid use of tape on concrete, which can leave markings on significant surfaces
- Existing marks should be removed using approved concrete cleaning procedures
7. Detail of axonometric by Tony Dyson - AR 1977

8. Auditorium seat on carpeted plinth with radial diffuser - AR 1977

9. Section through Olivier auditorium and stage, showing drum revolve below and flytower above - AR 1977
Olivier Theatre: Technical

**Assessment:** C

**Observations:**
The Olivier’s Drum Revolve is one of the most important pieces of equipment in the NT and an internationally significant example of stage technology, standing four stories high and 15 metres diameter beneath the stage. The drum revolve and flying system, included in the original design of the theatre, aimed to increase the productivity of the environment by enabling quick and accurate changeovers during and between shows. Both systems relied on bespoke equipment and new technologies and did not function fully for many years. The drum was first used in 1986, followed by use of the elevators in 1988. During the 80s and 90s, ad hoc modifications were made to improve both the original mechanical design and the electrical drive and control systems, but a raising of the stage between 1999 and 2003 effectively buried the drum revolve. With the arrival of Nicholas Hytner as Artistic Director, there was a renewed desire to use the Olivier’s full potential, leading to a complete replacement of the electrical and control systems of the drum. The project was specified, managed and largely installed by in-house staff, using standard industrial equipment from a proven supplier.

**Stage:** The height of the stage has been modified a number of times by artistic directors, and is now at the height determined during Peter Hall’s directorship. This has resulted in a height discrepancy between the stage and backstage areas. The installation of stage compensator elevators to line the stage level with the goods lift is included in the Technical masterplan. Scene assembly areas with motorised scene wagons are located behind the stage and acoustically separated.

**Flytower:** The Olivier flytower is equipped with a system of power-operated spot lines. The open stage precluded vertical support to the front of the flytower, so the overhanging portion is suspended from post-tensioned beams cantilevered at top level from outstanding wings of the main body of the tower.

**Component assessment:**
- Drum Revolve: B
- Stage: C
- Fly tower with power-operated spot lines: C
- Grid Installation and flying: C

**Policies / recommendations:** (See general policies for the Theatres)
Lyttelton Theatre: Auditorium

Assessment: B

Observations
The Lyttelton is a two-tier, 895 capacity proscenium theatre contained within a rectangular concrete volume. Gently curved seating sets up a frontal, cinematic relationship between the audience and the stage, which is framed by a proscenium arch adjustable in width and height.

The balcony structure is of cantilevered construction, with concrete diaphragms bracketed from deep columns and balanced by the Front of House structure. Cast in-situ concrete side walls adjacent to the stage feature angled board markings of varying depth for acoustic effect. These are the most significant architectural elements of the auditorium, and are still elegantly lit by simple cylindrical light fittings.

Towards the stage, a single steel lighting bar originally held four theatre lights. Since completion, additional lighting bars have appeared at the base of the stage end of the sidewalls and are fixed directly to the face of the walls. These have been attached to the concrete walls in an unsympathetic manner.

Concord Directional Darklighters with PAR 56 lamps are recessed into ceiling planes at 10° from vertical as in Olivier auditorium. PAR 36 fittings are surface mounted under the circle. As in the Olivier, blue LED lights have been used to light the row-ends and are difficult to read and an inappropriately cool colour. Dark brown carpet and ‘Beaver’ brown upholstery on seats remains (seat design principles as in Olivier auditorium).

Component assessment:
Concrete side walls: A
Seating: C
Lighting: B

Policies / recommendations: (See also general policies for the Theatres)

Refurbishment & alterations
- Develop strategy to minimize permanent technical equipment on concrete surfaces
- Develop strategy for conducting impact assessment with regard to alterations
- When re-upholstering the seating, care should be taken to match the original colour.

Maintenance & management
- Avoid use of tape on concrete, which can leave markings on significant surfaces
- Existing marks should be removed using approved concrete cleaning procedures
1. Lyttelton Auditorium. Note single lighting bar on side wall - AR '77

2. Original cylindrical downlighters remain - HTL 2008

3. Recent blue LED lights provide poor illumination of row letters - HTL 2008

4. Auditorium - Note additional lighting bar on side wall - HTL 2008

5. Concrete side wall detail - HTL 2008
Lyttelton Theatre: Technical

Assessment: D

Observations:
Stage: The Lyttelton stage is framed by a Proscenium with an adjustable arch of width 9m – 13.6m, and height 5m – 9m. The arch can also be moved within a distance of up to 1.6m from the safety curtain, which was the first bi-partite curtain in the UK (closing from both above and below).
The stage can be fully raked on screw jacks, and there is the possibility of an orchestra pit.

Flytower: The Lyttelton flytower is a rectangular box supported on corner columns, with a plant room complex that cantilevers over the front portion of the auditorium, extending the full height of the tower, and containing the air conditioning plant that serves the auditorium and stage areas.

Flying is currently manual counterweighted, but a powered Flying Scheme is proposed in the Technical Masterplan, for completion by 2010. The current proposal includes building a new winch room on top of the Lyttelton flytower, which would sit below the existing parapet height.

Backstage: There are full-sized rear and side stages, including a motorized scene wagon to the rear stage only. Reinstatement of the side stage wagon is proposed on a low priority (by 2021).

Component assessment:
Counterweighted Lighting Windlasses: C
Safety Curtain: C
Adjustable Stage Rake: C

Policies / recommendations (See also general policies for the Theatres)
Refurbishment & alterations
• Develop strategy to minimize permanent technical equipment on concrete surfaces
• Develop strategy for conducting impact assessment with regard to alterations
1. Section through Lyttelton auditorium and stage, with flytower above - AR 1977

2. Adjustable proscenium arch - HTL 2008

3. Lyttelton side stage - HTL 2008
Cottesloe Theatre: Auditorium and Stage

Assessment: A

Observations
The Cottesloe is a small studio theatre accommodating between 200 and 400 (maximum standing room) depending on stage configuration. The space was developed by the architects from a design study put forward by Iain Mackintosh in 1973. Three tiers of galleries, on three sides, accommodate one row seated and one row standing / leaning, with an adaptable auditorium rostra and retractable seating unit.

The space provides the means for designers and directors to create adaptable auditorium environments. There are five lighting bridges and access bridges and interconnecting walkways 7.3m above stage level. The auditorium is painted black throughout, with the underlying red oxide primer revealed in areas of wear.

Current issues include the pressing need for auditorium refurbishment and seat replacement along with an upgrade of technical equipment, although there was a technical refurbishment a few years ago. The ventilation system has also been identified as inefficient.

Component assessment:
Overall space: A
Galleries: B
Adaptable auditorium rostra and seating: B

Policies / recommendations:
Potential changes
- Investigate the advantages of replacing the retractable seating with mechanical platform lifts to improve adaptability. This long-term solution should be studied alongside the need to re-design the ventilation system
- Explore alternative arrangements for the connection between the auditorium and foyer to reduce congestion and increase theatrical flexibility

Refurbishment & alterations
- Explore the Carbon Trust recommended changes to the ventilation system
1. View from ‘stage-end’ of Cottesloe prior to completion. The theatre remained incomplete at the time of the building’s opening. - AR 1977

1. End-stage configuration - HTL 2008

Cottesloe Theatre: Foyer

Assessment: D

Observations
The Cottesloe foyer is a triple height space with an orthogonally-aligned exposed concrete soffit and board-marked concrete walls. The space originally featured a concrete semi-circular stair with vertical board-making, consistent with the main foyers, which circulated to the first floor. This was considered too large and bulky for the small footprint of the foyer, and in 1997 was removed. A new stair, box office area and bookstall were added, as well as new signage, carpets and bars.

The 1997 stair is concealed behind a large blue laminate screen, obscuring vertical circulation to the upper level, and the stair is contained within a pale grey laminate lining concealing the concrete. The division between ground and first floor remains unsatisfactory, and there is pressure on the lower level, which becomes very crowded during the interval. Accessibility into and within the foyer and theatre is currently poor.

Generally, the foyer including bar and toilets is currently inadequate in size, and there is broad consensus for an overhaul of the Cottesloe Theatre as a whole. This will require the development of a comprehensive brief, co-ordinated with future strategies for Cottesloe Avenue, potential development to the South, and the possibility of connections across the terraces and roof of the NT.

Component assessment:
Concrete wall surfaces and balcony: B
Concrete soffit: B
1997 Stair: E
Box office and bookstall: E
Bar: E
Toilets: E

Policies / recommendations:
Potential changes
• Investigate the provision of a lift and suitable wheelchair space within the theatre
• Explore opportunities to strengthen the relationship of the foyer to the avenue
• Explore reconfiguration of the existing footprint to improve spatial efficiency within, and investigate the possible expansion of the foyer through displacement of Props.
• When investigating potential changes, give consideration within the design process to the reinstatement of original elements.
1. Cottesloe foyer upper level - HTL 2008


3. Cottesloe foyer ground floor bar (1997)


4. Foyer view to Cottesloe Avenue - HTL 2008
Back of House

Assessment: C

Observations
The private areas of the building are architecturally subservient to the front of house spaces and are of secondary importance to the public areas. However, within the back of house a hierarchy of significance can be identified between the three principal architectural systems: the stratified concrete structure of the administrative offices; the introspective courtyard of the dressing room block, also in board-marked concrete; and the steel and brick workshop block, which is articulated as a robust factory space. Bare brick and concrete are exhibited frankly, while partitions and finishes in offices are clearly defined as secondary elements to the exposed concrete soffits.

Circulatory spaces between these areas are defined by cheap, hard-wearing materials, but have been refurbished over the years with varying success. Although these functional spaces only contribute some significance in conservation terms, the incremental changes have in places undermined the simplicity and robustness of back of house spaces.

Navigation back of house continues to be problematic, and orientation is particularly difficult in windowless corridors or in the dressing room block that lacks views to the context. Colour coding and coloured lighting installations have been tried but signage and use of colour throughout back of house needs revisiting.

The current Back Stage tours work well. However, the NT has an ambition to communicate the BOH making/production processes more vividly to the public, and there are aspirations to make the private areas of the building more permeable.

Space pressures include the need for more rehearsal and meeting spaces, as well as additional office space, including a dedicated space for designers and video / digital production.
Policies / recommendations:

Potential changes

- Explore new opportunities for how the BOH making/production processes can be physically communicated to the public. Consideration must be given to the management of public access to BOH areas and H&S issues such as noise and fumes.
- Consider ways in which the building could become more permeable, and how developing an active frontage to the south-east could convey the many BOH creative processes.
- Provide new spaces for rehearsing and developing productions.
- Investigate the options available for expanding office space.

Refurbishment & alterations

- Develop a set of design guidelines for BOH refurbishment, including defining a hierarchical colour palette for circulation areas. Areas adjacent to the stages should be suitably dark, while colour-coding of stairwells and dressing room corridors should be further developed.
- Develop a clear BOH signage strategy.

Maintenance & management

- In some areas the structure of the existing fabric has been post tensioned. (see ‘Structural Engineering’ in ‘Understanding’.) It is vitally important that all the proposed works to the fabric of the building go through the Engineering Department to enable them to check that new openings required do not coincide with these post-tensioned areas.
Back of House: Administrative Offices

Assessment: D

Observations
The administrative functions of the theatre are concentrated on the North side of the building, looking towards the river and IBM building. The offices were designed to be flexible with lightweight partitions between offices and corridors in line with the exposed concrete soffits. Some departments have removed partitions between offices, or occupied corridor spaces to create large open-plan layouts. This has not proved particularly detrimental to the architectural significance of these areas.

Extra offices have also appeared in escape routes at the building’s corners and in the spaces adjacent to lifts, which had allowed views to the exterior and helped orientate visitors and staff.

Services were originally routed around the perimeter area below windows. New services are now run in more conspicuous locations, and are often face fixed to exposed concrete soffits.

Windows have vertical sliding opening mechanisms (see section on Windows) and shading is typically provided by aluminium venetian blinds. Solar gain is problematic on the south-west facing elevations.

Component assessment:
Office Partitions: D
Exposed concrete soffits: B

Policies / recommendations:
Refurbishment & alterations
- A set of principles for wiring and conduit in sensitive areas should be developed prior to any further additions. Existing new wiring and conduit should be re-examined. Wherever possible it should be concealed
- Ensure occupation of 'leftover' spaces does not impede routes for escape
1. Open plan office - HTL 2008

2. Corridor to partitioned offices - HTL 2008

3. Window blinds - HTL 2008


5. Partitioned office - HTL 2008
Back of House: Kitchen and Canteen Areas

Assessment: D

Observations
The main kitchen and back of house catering facilities are located on the north corner of the building beneath the administrative strata.

The Blue Room, with views to the river through the raking struts, was refurbished to the current specification in 2001, with blue painted walls, dropped ceiling and laminate flooring. The entrance via a canteen area features grey tiled walls and floor. The interior finishes now appear dated and institutional, and give no indication of the underlying architectural framework.

The Green Room was refurbished in 2005 with a similar palette of materials and furniture. The two rooms are linked by an exterior terrace running around the north corner of the building, which also serves as fire escape. One of the access doors behind the Blue Room counter appears to have been converted to a fixed window.

Component assessment:
Kitchens: E
Blue Room: D
Green Room: D

Policies / recommendations:
Refurbishment & alterations
• Future refurbishments should aim to incorporate materials and finishes that are more sympathetic to the original architecture
Back of House: **Dressing Rooms**

**Assessment: C**

**Observations**
The dressing rooms are positioned between and behind the two main stages and are organized on four floors around a courtyard (see external edges) cutting through the strata from ground floor to second floor.

Configured as both communal and individual dressing rooms, they are accessed from an internal corridor (see Circulation) and are naturally lit by openings onto a deep courtyard.

The interiors were refurbished about ten years ago and are generally in need of decorative maintenance and updating. Original windows remain, as do some original aluminium venetian blinds, which conflict with the pivoting windows and are in need of replacement.

**Policies / recommendations:**

**Refurbishment & alterations**
- The possibility of fixing blinds directly to window frame should be investigated
- Improvements to signage is recommended, including re-appraisal of colour-coding
- Refurbishment and alterations should be coordinated with design strategies throughout back of house.
1. Dressing room corridor - colour coded doors - HTL 2008

2. Dressing room window - HTL 2008

3. Windows onto the dressing room courtyard - HTL 2008

4. Make up table - HTL 2008

5. Curtains conflict with window opening - HTL 2008

6. Typical interior shared dressing room - HTL 2008

7. Typical shared dressing room interior - HTL 2008
Back of House: Wigs, Wardrobe and Dye room

Assessment: C

Observations
Dye rooms and costume stores are located on two floors above the dressing room accommodation, set back from the courtyard to create a narrow terrace overlooking the dressing rooms. There is only one point of entry onto this terrace and it is consequently underused by staff, although a few plastic chairs and pot plants are visible.

All departments have good daylighting, though the costume department (wardrobe) suffers overheating through its south-facing windows. Window openings are vertical sliding aluminium framed as in the administrative offices.

It is anticipated that the current Boot store adjacent to the wardrobe department will be converted into an office space, provided a suitable alternative storage solution can be found.

With the current shortage of office space, it is appropriate that spaces with natural light and ventilation should be converted in this way.

Component assessment:
Wardrobe - C
Wigs - C
Dye Room - C

Policies / recommendations:
Refurbishment & alterations
- Explore shading and cooling options for costume and props departments
Observations
Many back of house corridors have low ceilings and little or no natural light. Wayfinding is a problem throughout the building and is exacerbated by the lack of windows in circulatory spaces. False ceilings and poor lighting contribute to an institutional atmosphere. There are also a number of offices and running wardrobes that have no natural daylight or ventilation, providing unpleasant working conditions for the staff.

Partitions, doors and floor surfaces are typically robust and hard-wearing surfaces, though there are some white painted surfaces that are inappropriate for high traffic areas. Colour coding has been used on dressing room doors to aid navigation but has not proved entirely successful, and the introversion of the deep dressing room courtyard and symmetry in plan continues to make orientation in this area difficult.

In the corridors and secondary spaces adjacent to the stages, a dark grey colour scheme has been piloted to indicate proximity to the theatres. This has been driven in-house by the Planning and Graphics departments, independent from the standard maintenance programme led by Engineering, and should be seen as a successful example of the NT developing a clear design brief for back of house. The corridor circulating the drum was refurbished in 2003, with a new yellow floor surface and existing concrete exposed, lit by coloured neon (proposed as part of a future wayfinding strategy).

Policies / recommendations:

Potential changes
• A strategy should be developed for refurbishment of back of house circulation spaces, with specific guidelines for stage, stage door, administrative and dressing room corridors
• Opportunities to improve the working environment for the staff should be exploited wherever possible

Refurbishment & alterations
• Refurbishment and alteration works should adhere to back of house design guidelines with regard to finishes, signage, lighting and routing of services
Back of House: Workshops, Drum Road and Dock Door

Assessment: C

Observations
The workshops, linked by Drum road and serviced by the Dock Door on Upper Ground, is a steel frame (cased in concrete) with brick infill that is structurally independent from the reinforced concrete structure of front of house, auditoriums, offices and dressing rooms.

Materials are suitable for the factory-like nature of the space: bare or painted concrete and brick walls, concrete floors. The triple height spaces of the workshop block are top-lit by roof lights. Infill floors and modular offices have been constructed in some areas, out of line with the roof lights and blocking more daylight than is necessary to spaces below. These floors, lacking daylight, are not ideal office environments, and would be more suitable for storage areas, of which there remains a shortage. The spatial separation of these workshop office structures limits communication between departments.

The workshop spaces of the Paint frame, Carpentry, Metal workshop and prop-making are linked to the stages and rehearsal rooms by the triple height Drum road. This height could be exploited for storage.

There is currently a problematic height differential between the road and get-in area.

Component assessment:
Paint Frame: C
Carpentry: C
Metal workshop: D
Drum Road: C
Dock door: C
Infill floors: E
New office spaces: E

Policies / recommendations:
Potential changes
• Opportunities to improve the working environment for the staff should be investigated wherever possible
• Explore options to resolve height differential between road and get-in area

Refurbishment & alterations
• Ensure any significant equipment is documented prior to alteration of replacement
Back of House: Rehearsal Rooms

Assessment: D

Observations
There are rehearsal rooms throughout the building, with varying scales and characteristics suitable for different stages of the production process.

Rehearsal rooms 1 & 2 in the workshop block are large triple height spaces accessed by drum road, with full-height doors to allow scenery to be wheeled into place. They are naturally lit by rooflights.

Rehearsal room 3 is located beneath the Olivier auditorium, with no natural light. It has recently been refurbished.

Rehearsal rooms 6 & 7 are located at the north corner above stage door, and rooms 4 and 5 (music studio / Olivier Band room) are double height spaces on the 4th floor. All are not daylit.

Component assessment:
Rehearsal rooms 1 & 2: D
Rehearsal 3: E
Rehearsal room 4 & 5: E
Rehearsal rooms 6 & 7: E

Policies / recommendations:
Potential changes
• Opportunities to improve the working environment for the staff should be investigated wherever possible
Assessment: E

Observations
Toilets and shower facilities: There are some original back of house toilets and showers remaining, with dark tiled floors and white tiled walls. These are now in need of refurbishment. Newer toilet and shower facilities have been refitted with a similar material palette to front of house.

Plant rooms: These are distributed throughout the building and are generally well sized for the equipment they contain. Most air handling units are original and are nearing the end of their useful life. Boilers are original shell and tube installation but the original oil burners have been replaced with efficient modulating gas burners on three of the four units. The fourth boiler is currently not in use and is surplus to requirements.

Refrigerant in the chillers has been replaced to comply with current regulations. The evaporative cooling tower on the roof is well maintained and likely to be reasonably efficient in operation.

As was common at the time, services are generally integrated with structure. This has made replacement and modernisation challenging, but while it is difficult to introduce new risers, existing routes generally serve the building well. Extensive servicing work was successfully carried out as part of the 1997 refurbishment, but this has made access to services difficult as most risers are now full.

Component assessment:
Toilets and showers: E
Plant rooms: D

Policies / recommendations:
Potential changes
• Any new plant spaces provided as part of environmental improvements must not impact on the significance of the external fabric of the building

Refurbishment & alterations
• A clear design strategy should be developed for replacement toilets and showers
1. Original bathroom - HTL 2008

2. Original shower stall - HTL 2008

3. Plant room - HTL 2008


5. New toilets - HTL 2008

6. Evaporative cooling tower - HTL 2008
## 5. Sources of Information

### Illustrations

All photographic and drawn information by Haworth Tompkins Ltd 2008 unless listed below:

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Statutory listing description
The National Theatre building was listed in 1994 at Grade II*
The listing statements are as follows:

UPPER GROUND (North-East Side)
Royal National Theatre
LBSUID – 449659
SERIAL NUMBER OF LIST ENTRY -- TQ 3180 963-/1/10022
Listing NGR: TQ3101380383
GRADE II*
listing date: 23/06/1994

Theatre complex, 1969-76 by Sir Denys Lasdun. Reinforced concrete, flat roofs. Square building, with lower 895-seat Lyttelton auditorium in line with and first floor 1165-seat Olivier auditorium at a forty-five degree angle to the main facades. These two linked at the level of the river embankment by paired foyers the full height of the building, with exhibition spaces and restaurants on several layers leading on to outside walkways. Projecting fly towers to the two main auditoriums interrupt this sequence of horizontal forms. Workshops, rehearsal spaces and dressing rooms to rear, with separate entrance and foyer to 400-seater studio space, the Cottesloe theatre. Metal windows and doors. Interiors with original furnishings to foyer areas and auditoriums.
The National Theatre is a major public building of the post-war period by one of its leading architects, and reflects new ideas in theatre design.

Source: Architectural Review, January 1977
this amends the 40th amendment to the 65th list for the London Borough of Lambeth
South Bank Conservation Area Statement

Conservation area designation report 1982:
‘In the case of South Bank, the area does not display the usual characteristics of areas chosen for Conservation Area status, nearly all of the buildings are new. However most of them are of national and some are of international importance. The spaces around the buildings particularly the riverside walk, are of great amenity value. They provide access to the river; an important pedestrian route; an area that can be read in conjunction with the arts complex; and attractive views of central London. The area is also an important element in the character and appearance of the river. As such, it is important that care is taken to ensure sensitive changes to existing buildings and spaces and that new development is of appropriate quality to the status and appearance of the area.’

Town Planning Committee Report, 27th July 1982

Notes relating specifically to areas adjacent to the NT:

2.4.1. Queen’s Walk (p. 12)
‘The Queen’s Walk, also known as Riverside Walk, is the spine of the conservation area and presents a very long linear pedestrian boulevard, which has dictated the siting and form of most of the significant post-war buildings. It is a city wide pedestrian route / public space of national importance. For much of its length it is lined by an avenue of mature London Planes which mirror the trees on the N bank of the Thames. Impressive ‘Sturgeon’ lamp standards mark much of the route. Queen’s Walk varies in width and character along its route, its junctions with the numerous bridges acting as nodes of activity along its length. The rivers edge is equally varied with occasional piers, steps and viewing areas adding interest along the route.’

Upper Ground
‘…at its S end, no more than a service route to the Royal National Theatre…’
‘Numerous bollards, cycle stores and refuse enclosures add unwelcome clutter’

‘Theatre Square is the name given to the forecourt of the Royal National Theatre which now serves as a piazza. It is a pleasant, informal area overlooked by the tiered terraces of the theatre building on two sides and Waterloo Bridge on another. It is often used for performances, events and activities.’

Public areas around NFT, Royal National Theatre and IBM p.29
‘Shared surface spaces mostly providing service access and cluttered with numerous mismatched bollards and other furniture. Little activity other than as through routes.’

Royal National Theatre, South Bank (Grade II*) p.23
Built 1969-76 to designs by Sir Denys Lasdun. Impressive linear, tiered structure constructed in reinforced concrete and housing three theatres as well as exhibition spaces and restaurants. Banded concrete balustrades contrast with similar bands of glazing. Symmetry is consciously avoided with two different sized flytowers and the square entrance turrets producing a dramatic varied skyline. The river façade combines three levels of terraces which link the two main theatre foyers and provide impressive river views (now obscured by the canopies of the mature trees on Queen’s Walk).
6. Appendix

level +1 - +4 As Built
Plans

level 49.00 - As built
level 59.00 - As built
level 59.00 - Current
Plans

level 69.00 - Current
Roof Plan - As built
Roof Plan - Current
Lasdun’s Strategy for the Future - 1989

The assessment of elements in this document has often been guided by Lasdun’s 1989 report to the National Theatre Board, titled ‘A Strategy for the Future’, which identified the key architectural principles and ways in which the building could accept change while ‘preserving its fundamental nature and architectural integrity’.

The document provides an insight into the possible changes that Lasdun anticipated for the building in 1989, and the architectural language that he considered appropriate to new developments. Key operational requirements identified at the time included:

• Reorganisation of the road system
• Rationalisation of the goods-in area
• Accommodation of an additional restaurant
• Permanent Lyttelton cloakroom facilities
• Additional office and rehearsal space
• Improved linkage between the Olivier and Lyttelton foyers
• A lift serving all levels of the Lyttelton foyer
• A solution to the Olivier Theatre acoustics
• Improved facilities for disabled people
• Expanded bookshop
• External access to the terrace café

Proposals were put forward for the above with reference to a set of architectural guidelines intended to govern the implementation of current and future works. These are re-iterated in the Conservation Strategy put forward in this document, and reproduced in full on the following pages.
A STRATEGY FOR THE FUTURE

A Report to the National Theatre Board

Architects
Denys Lasdun, Peter Softley and Associates
146 Grosvenor Road
London SW1V 3JY

April 1989
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1 TERMS OF REFERENCE
2 INTRODUCTION
3 FRONT OF HOUSE AREAS
   3.1 Space between Buttress Stairs and Front of House
   3.2 Lyttelton Stalls Foyer
   3.3 Terrace Cafe Access
   3.4 Lyttelton Bars and Buffets
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5 GOODS-IN AREA
6 STORAGE SPACE
7 ROAD REORGANISATION
8 OLIVIER THEATRE ACOUSTICS
9 EXTERNAL CLEANING
10 ARCHITECTURAL GUIDELINES
2.1 To indicate in general terms what scope exists, within necessary architectural constraints, for accommodating new facilities either by re-allocating existing space or by the creation of additional space and to examine to what extent the reorganisation of the roof system might facilitate the provision of such additional space and to recommend possible courses of action.

2.2 To determine whether and in what manner practical and cost effective provision can be made for the particular operational requirements listed below without compromising the architectural integrity of the building and to recommend possible courses of action.

2.2.1 To accommodate a substantial additional restaurant.

2.2.2 To provide permanent accommodation for the Lyttelton cloakroom.

2.2.3 To accommodate additional office and rehearsal space.

2.2.4 To improve the linkage between the Olivier and Lyttelton foyers.

2.2.5 To accommodate a lift servicing all levels of the Lyttelton foyer.

2.2.6 To rebalance the Olivier Theatre acoustics.

2.2.7 To extend facilities for the disabled.

2.2.8 To expand the bookshop.

2.2.9 To make the terrace cafe directly accessible from the external walkway.

2.2.10 To reorganise the goods-in area so that its activities are less visible.

2.3 To put forward architectural guidelines, which would be relevant both now and in the future, to govern the implementation of recommendations made under 2.1 and 2.2 above.
INTRODUCTION

2.1 Since the opening of the National Theatre's South Bank building in 1976 the circumstances under which the National Theatre is required to operate have changed in a number of significant ways. These changes include:

- financial constraints requiring greater generation of income from ancillary activities and sponsorship and less reliance on subsidy from public sources.

- the impending redevelopment of the South Bank Centre, which will present a new challenge to the National Theatre if it is to compete successfully as a place of general attraction to visitors to the South Bank.

- the expectation of better facilities for the disabled.

- the pressures arising from a generally greater level of activity and increased numbers of staff from that envisaged when the building was designed over 20 years ago.

2.2 To date, the response to changing needs and financial pressures has been one of expediency leading to haphazard and uncoordinated solutions to individual problems as they have arisen, without regard to the architectural integrity of the building or the adverse impression they give to audiences and other visitors to what is, after all, the National Theatre. The following are specific instances.

2.2.1 Lyttelton Bookshop

In its present form, the Lyttelton Bookshop is visually obtrusive, restricts freedom of movement and occupies space that would be better used for tables and chairs for the buffet. It also severely curtails views of the riverside walkway and across the river to Somerset House. It is clumsily detailed and presents an untidy appearance when seen from the foyer.

2.2.2 Signs

Numerous fixed directional signs and notices have been added as the need for them has arisen. They are mostly of ad hoc design with little thought having been given to their siting.

The attractive silver NT logos on the glass above the entrance doors have been removed.

2.2.3 Poster panels and leaflet racks

The original panels and racks were of a uniform design. Subsequent changes and later additions are of differing designs, those advertising the South Bank Centre and shows in other theatres being particularly out of keeping with the originals.

2.2.4 Terrace Furniture

Of the three types of furniture now being used on the terraces the wooden table and bench units on the high level walkway are particularly inappropriate, being more suited to a country park picnic area. The timber hut on this terrace is also totally out of place.

2.2.5 Door Mats

The carpet-type mats with which the originals have been replaced are unattractive and untidy. An effective alternative should be found that can be fitted into the mats which were provided originally.
2.2.6 Clutter

The use of parts of the public areas for storage etc detests from their enjoyment by visitors. Instances are
- in winter, the storage of terrace furniture outside the Lyttelton Circle buffet
- the storage of exhibitions equipment on the roof of the Box Office.
- the storage of furniture etc in the space below the Lyttelton main staircase
- the storage of the zip-up staging adjacent to the ground floor entrance
- the overflow of equipment from the Lyttelton buffet preparation areas, where an ineffective attempt at screening by trolly panels has been made

2.2.7 Public Toilets

The stainless steel recessed towel cabinets have been replaced with a commercial type fixed over the originals. New soap dispensers are stuck on to the mirrors.

2.2.8 Goods-in area

Despite the creation of more storage space under the adjacent stair, refuse bins permanently disfigure the area.

A new external store has been added with no regard to the plinth and rating column into which it crashes.

The smell from the nearby kitchen extract fan add to the squalidness of this area.

2.3 The purpose of this study is to examine ways in which the building can be adapted to meet some of the demands now being made upon it by the changes referred to in 2.1 above without harming its architectural integrity, at the same time bearing in mind that only limited funds are likely to be available for any one project.

2.4 It is inevitable that the nature of the building itself will impose limitations on what can be done. A particular problem is storage space for the front-of-house areas. It is just not possible to provide this near at hand and space will have to be found elsewhere to dispose of most of the clutter referred to in 2.2.6 above, even if this is a labour intensive solution. It is simply not acceptable for it to be allowed to remain where it is as a permanent eyesore.

(Proposal for additional space to ease the situation in the Lyttelton bars and buffets appear later in this Study (3.4)).

2.5 Some consideration has been given to the structural and technical implications of the proposals contained in later sections of this study. Very general discussions have been held with Flint & Neill, who were the designers of the structure, as to the feasibility of the structural aspects of the proposals, from which it would appear that no insurmountable problems are likely to be encountered. However, it must be emphasised that no detailed calculations or analyses, such as would be required before making final decisions, have been carried out. Similarly, knowledge of the building and its services has been drawn upon to assess where it is likely to be practical to re-route existing services or install new ones. Again, further study of this aspect would be required before coming to final decisions.

2.6 The section dealing with the acoustics of the Olivier Theatre has been written in collaboration with Mr Richard Cowell of Arup Acoustics.

2.7 The drawings referred to in the following sections of this study are grouped together at the back.
3. **Foyer of House Areas**

3.1 Space between buttered stair and front of house: drawings nos. 1, 2, 3, 4 & 9

Additional accommodation could be constructed on three levels to provide:
- a permanent location for the Lyttelton Cloakroom at ground level
- an extension to the Restaurant with seating for an additional 20-30 people
- a Sponsors' Reception Area at Olivier Cloakroom level which, at other times, could serve as an additional performance space

The new structure for this accommodation would require an additional concrete column from basement to Olivier Cloakroom level with steel framed floors supporting light floor slabs on metal decking with normal suspended ceilings below. External edge beams would have to be concrete to match the existing structure and windows at the top level would have to follow the diagonal grid rib on the soffit above.

The Lyttelton Cloakroom could either be split with half by the buttered stair and half at the opposite end of the Stalls Foyer, or it could all be accommodated by the buttered stair by extending the ground floor out beyond the face of the Restaurant extension above.

3.2 Lyttelton Stalls Foyer: drawings nos. 1, 2, 10 & 11

The floor level of the Old Box Office can be dropped to the level of the Foyer floor and the available space can be increased by moving the windows outwards. Adaptation and re-fixing the existing windows along the edge of the concrete structure above would provide approximately 23 sq m of extra space (drawing no. 3).

More costly lean-to windows could increase the extra space to approximately 42 sq m (drawing no. 1). From many points of view the old Box Office would be an effective location for an enlarged Bookshop with the advantage of access from both inside and outside the building.

An alternative location for the Bookshop, if the old Box Office is considered to be too remote, could be devised by removing the existing windows between the pair of columns opposite the Long Bar and adding a lean-to glazed structure on the outside. This could provide a Bookshop at least as big as the present one but in a way that would be far less detrimental to the Foyer.

The area available for sales could be augmented by adding a similar, but necessarily leaner, structure on the other side of the Buffet. Alternatively, this structure could accommodate half the Lyttelton Cloakrooms.

If the old Box Office cannot be used as a Bookshop it would seem an ideal location for a Coffee Shop, sharing the enlarged service area with the adjoining Buffet.

Modifications to the windows of the Lyttelton Foyer are complicated by the need to maintain the induction units at cill level which are an integral part of the Foyer air-conditioning system. However, it is likely to be possible, without too much difficulty, to re-route the high velocity air ducts and chilled water pipes so that the induction units can be re-sited.

Architectural considerations suggest that the introduction of lean-to glazed structures in place of the windows between the pairs of columns at each side of the buffet will require that the extension to the old Box Office should be limited to what can be achieved with vertical windows. Lean-to glazing around the old Box Office would be perfectly acceptable on its own but would not be compatible with dissimilar lean-to structures to each side of it.

3.3 Terrace Cafe Access

It is likely to be possible to provide a steel stair at each end of the Cafe Terrace to give direct access from the High Level Walkway.
The longer lengths of external concrete balustrade around the terraces are all post-tensioned and cannot be cut in any way. However, this does not apply to the short return faces and it is in these that openings would be made to receive the stairs. Cutting the openings may cause some local deflection but this is unlikely to be a problem if the correct structural procedures are followed.

There are existing doors at one end of the terrace but new doors would be required at the other end.

3.4 Lyttelton Bars & Buffets: drawings nos 1, 4 & 11

3.4.1 Additional storage space could be gained behind the Long Bar by bringing the bar forward and allowing it to project about 1.5m into the foyer. The new store would be about 13 sq m in area and would enable much larger stocks to be kept near at hand. It would also act as an additional barrier to noise passing from the bar to the Lyttelton Theatre Control Rooms behind.

Security would be provided by means of a top hung, sideways folding grille, with recessed stacking pockets at each end of the bar. The top track would be below the bottom of the air-conditioning grille and would be supported on hungers from the diaphragm.

3.4.2 The relocation of the Box Office will release its present store and Telephone Kiosk for much needed additional food preparation and storage space for the Stalls Buffet.

3.4.3 If the Circle Buffet were brought forward in a similar manner to that suggested for the Long Bar an area of about 9 sq m of additional storage/preparation space would be created. This should be more than sufficient to accommodate the equipment and stores that now overflow into the public area. The buffet counter itself would be somewhat longer than at present. There may be some loss of seating capacity as a consequence of bringing the counter forward.

Against this, greater area could be made of the external Terraces at the Buffet level and, with the provision of the stairs proposed in 3.3 above, of the High Level Walkway immediately below, where there could be additional tables and chairs. A permanent, stressed membrane canopy projecting from the Baylis Terrace balustrade would afford complete protection to the upper level and partial protection to the lower, allowing both to be more fully used in warm weather.

3.5 Lift access to upper levels of the Lyttelton Foyer: drawings 1, 2, 3, 4

It should be possible to form a lift shaft through the Cleaners’ Cupboards at the west end of the Lyttelton Foyer with the necessary openings cut through the intervening concrete wall. The lift would preferably be hydraulic with its motor room in the basement car park where it would be contained within a single car space. It would be of 6-8 person capacity and would be large enough for one wheelchair. Also, it would be continued up to the Baylis Terrace to provide service access for a new restaurant there. (3.8 below)

3.6 Disabled access to main Restaurant & Oliver Cloakrooms: Drawing nos 1, 2, 3, 4

It may be possible to install an hydraulic lift within a planned shaft to connect the ground floor foyer to the Restaurant and Oliver Cloakroom levels. It would depend on the capacity of the diaphragm structure in the area to accept a cut-out for the shaft and this can only be determined after a full structural analysis. Since some loss of space in the Restaurant would be involved it is probably only worth contemplating this idea in conjunction with the extension to the Restaurant suggested in 3.1 above.
3.7 Link between Lyttelton and Olivier Theatre; drawing nos 364
The two Foyer areas are already linked by the VIP stair from the Restaurant to the Olivier Stalls level. This stair, which serves as the alternative means of escape from the Restaurant, is accessible from the Lyttelton Foyer. There is a succession of doors to be negotiated when passing between the two theatres. Some of these are necessary to protect the means of escape from the Restaurant but it might be worthwhile to examine, with the relevant authorities, whether their number could be reduced.

If the staircase itself were to be isolated it should be possible to reduce the number of doors between the Restaurant and the Lyttelton Foyer so that with proper signing this could become a normal means of access to and from the Restaurant.

There is no sensible way in which additional links between the two Foyer areas could be provided.

3.8 Baylis Terrace Restaurant; drawing no 5
There is no reason why a Restaurant should not be accommodated on the Baylis Terrace provided it is handled correctly.

The service area for such a Restaurant would necessarily have to be located to the west of the Lyttelton Theatre roof where water and drainage services are available and where lift service for goods can be provided (see 3.4 above). It would have to be treated as one of the family of metal clad roof structures.

The Restaurant itself would then have to be placed between this service area and the Olivier Stalls Foyer from which it would be accessible. It would also be accessible from the external staircase opposite Waterloo Bridge. Any link with the Olivier Stalls Foyer must not impede the escape route from the Olivier Circle, westwards across the terrace. It could seat about 108 people at tables four.

Any structure on the Baylis Terrace should have a light appearance so as not to confuse the architectural language of the existing building. The most appropriate solution would be a lightweight double-skin stressed membrane structure, the membranes being fire-resisting, translucent, ‘Teflon’-coated woven glass fibre fabric. It could be either a weather shield over a lightweight prefabricated structure for the Restaurant or it could be both roof and restaurant ceiling in one.

The same theme could be continued with advantage by further membrane structures on the Riverside Walkway to provide cover for stalls and kiosks.

3.9 Wheelchair spaces in the auditorium; drawing nos 4 & 6
Currently, there are six wheelchair spaces in the Olivier Stalls and four in the Lyttelton Stalls. To meet Requirement M4 of the Building Regulations 1985 a total of twelve spaces would be required in the Olivier Theatre and nine in the Lyttelton Theatre. The spaces should be dispersed and can either be kept clear or be ones from which seats can be readily removed for the occasion. It is suggested that the additional spaces should be provided at the back of the Circles of both Theatres, although this will only work for the Lyttelton Theatre if the lift referred to in 3.3 above is installed.

The location of the wheelchair spaces should be carefully considered in relation to the position of the existing ducts through the floor which supply air to the plenum beneath the seats.
4 OFFICE AND REHEARSAL SPACE

4.1 Office Space: drawing no 6

Approximately 85 sq m of additional accommodation can be provided at
roof level at the top of the staircase on the south side of the
Wardrobe Department. It would be supported on the structural walls
on each side of the lavatories to the west of the staircase.

Since the space can be top lit it would serve admirably as a Design
Studio. It should be treated as one of the metal clad roof
structures and constructed accordingly.

4.2 Rehearsal Space

The roof over the Olivier Scene Dock has been suggested as a
possible location for a new rehearsal room.

When account is taken of the need to safeguard the ventilation
requirements of the adjacent boiler house and plant rooms and to
maintain the required smoke outlets from the scene dock, an area of
approximately 150 sq m would be available (say 15m x 10m).

It is unlikely that a structure of this size could be supported
without a complete upgrading of the Scene Dock roof structure
involving its removal and replacement. The disruption would
probably necessitate the closure of the Olivier Theatre for some
months, so it would not seem to be a viable option.

5 GOODS-IN AREA: DRAWING NO 1, 2 & 13

A new external Refuse Bay can be constructed to accommodate all
refuse containers. It should be built of brick to match the nearby
wall panels (or, if they are longer obtainable, with rough concrete
blocks of the same colour).

The old Refuse Bay could then provide space for additional storage,
either with or without an access corridor to the external doors.
The omission of the corridor would facilitate use of the additional
space as an extension to the adjoining catering stores.

The additional space would compensate for the removal of the ill-
conceived store at the corner of the building.

Some time ago proposals were put forward for quietening the nearby
kitchen extract fan and reducing the emission of smells. It is
recommended that this scheme should be revived as part of the
general improvement of this area.

6 STORAGE SPACE

In 2.4 above the lack of storage space for the front of house areas
is noted. It may be that, if additional storage space could be
provided elsewhere in the building, with some re-organisation, space
relatively nearby the front-of-house could be released to meet its
needs.

Not long after the building was opened and before the Wardrobe Store
was converted largely to staff rooms and workshops there a scheme to
provide this accommodation in the basement Car Park in a space
approximately 25m x 5.5m immediately north of Staircase 13. The
area presently has eight car spaces. It could be readily converted
into storage space and, being adjacent to both the staircase and
the lift 7 would be relatively accessible from all parts of the building.
7 ROAD REORGANISATION: DRAWING 7 & 8

7.1 In 1982 Mr Anthony Blee of the Sir Basil Spence Partnership prepared a scheme for the reorganisation of the road system round the National Theatre. Simply, the scheme consisted of changing the roads on the east and west sides of the building from single flow to dual flow and eliminating traffic, other than emergency vehicles, from the section between the building and the Riverside Walkway. Turn-round islands were to be provided at the northern end of each access road, that on the west side being extended to provide a setting-down point for members of the public arriving by car or taxi. Access to the Car Park would then be from the west so that the east access would be confined to staff, goods delivery and refuse collection. The area between the building and the Riverside Walkway was to be paved as an uninterrupted space for pedestrians but remaining accessible to emergency vehicles.

The chief attractions of the scheme were, and still are, the elimination of traffic and parked cars from the space between the building and its Riverside Walkway and some reduction of the sense of separation between the two which exists at present.

7.2 The extent to which implementation of this scheme might facilitate the creation of additional space for other purposes has been considered. The requirement to maintain a clear access for firefighting vehicles at all times severely restricts the scope for other activities since there is little free space left available after this requirement has been met. Space is also restricted by the long basement Car Park smoke outlet between the road and the Riverside Walkway but there is no practical alternative to this. Although the reorganisation of the road system yields no benefit in terms of additional space it would nevertheless be worth implementing for its own sake for the reasons given in the previous paragraph.

7.3 There is of course scope for making fuller use of the Riverside Walkway for a variety of activities. Reference has already been made in 3.0 above to stalls and kiosks. It may be noted that when the original tree planting was carried out by the GLC 15 years ago it was the intention that, when the trees developed to a reasonable size, alternate trees would be removed to allow those remaining to develop better. This was done some years ago in front of the Royal Festival Hall. If it were now done in front of the National Theatre spaces would be created which could be used for small shows and performances under membrane structure shelters. No doubt the use of the Riverside Walkway for such activities would have to be negotiated with the South Bank Board but it is an idea that is worth pursuing as it would enliven that section of the riverside and help draw people to the Theatre.
8 OLIVIER THEATRE: ACOUSTICS

8.1 Background

At the time of the opening of the Olivier Theatre it was clear that an echo was disturbing the performers at the front of the stage. This was found to be caused by reflections from the balcony front and the ceiling panel nearest the stage.

In the following months it also became apparent that intelligibility was poor in the front rows of the circle and parts of the side stalls, particularly when the actor was facing away from the listener. Extensive tests in the auditorium and on the model at Cambridge showed that the poor intelligibility was due to the listener receiving inadequate early reflections and confusing late sound reflections. In order to remove the echo to the stage and to improve the balance between early and late reflections in the auditorium sound absorbent materials were placed in a number of discrete locations, including the face of the front ceiling panel. This work was carried out on a staged programme during the second half of 1977.

During the same period, the profile of the top of the balcony front was modified in order to improve the sight lines from the front row of the circle. This had the side benefit of also slightly increasing the proportion of direct sound received by listeners in those seats.

Also during this time a voice reinforcement system was installed to improve audibility in the front seats of the circle and the rear of the side stalls. Although the system had limitations it was generally helpful. But it was never fully engineered and was subject to microphone theft and only limited commitment to its success. Its use was eventually abandoned when the flank walls of the stage were treated with carpet, which proved a significant benefit for many seats.

The combined effect of these modifications was a substantial improvement in listening conditions with a consequent reduction in the numbers of complaints.

8.2 There has been a tendency for a long time to bring the acting area further forward into the auditorium than had been the intention when the Olivier Theatre was designed, with the result that performers are taking even further away from helpful reflecting surfaces. Despite advice that, acoustically, it would be better to keep the acting area further back, this situation was perpetuated when the new raised stage was installed which brought the acting area even further forward to its present position.

As a result a series of echoes and late sound reflections which did not exist previously are now being generated with a consequent deterioration in intelligibility in certain positions.

8.3 Corrective measures

Subsequent tests demonstrated that, in order to improve conditions sufficiently for this new situation, absorbent material would need to be applied to the front face of the balcony, the rear wall of the circle and the doors at each side of the back of the stalls.

Sketch details of appropriate methods of applying the absorbent material are shown on drawing nos 14, 15 & 16.

The choice of carpet for the balcony front will require careful consideration. It should match the concrete as nearly as possible in both colour and texture, with the former erring on the side of warmth, for quality, the final choice must be approved by the Acoustic Consultant.

The carpet covering to the doors should be dark brown and must also be approved for quality by the Acoustic Consultant.

The fabric covering to the wall panels should be the same tonal value as the existing material and there is no reason for it to differ greatly in colour.

It must be emphasised that all three locations need to be dealt with - it will not be sufficient only to treat the balcony front.
Subject to reviewing the position when this work has been completed, it may also be desirable to remove the absorbent material from the face of the frost ceiling panel and reinstate the reflective surface.

It may be noted that the treatment of these surfaces was first recommended at the end of 1981. The fact that the work has not been implemented has meant that for the past seven or eight years the acoustics of the Olivier Theatre have been the cause of a level of dissatisfaction which could have been avoided.

6.4 Assessment of improvement

Since the completion of the Olivier Theatre a great deal of experience has been gained as to the acoustic behaviour of the auditorium in its present form. The foregoing recommendations are, and were originally, put forward using this experience as the basis for determining what corrections are now necessary.

The effects of changes cannot be quantified in terms of percentage improvement in acoustic performance without first defining the criterion for measurement and then carrying out extensive studies. To attempt to do so is potentially misleading.

However, it can be said that when the recommendations have been implemented there will be a noticeable improvement in intelligibility in those seats where it is poor at present. A further benefit will be greater freedom in the setting up of show sound systems which, it is understood, cause some difficulty at present.

It is therefore recommended that this work should be accorded the highest possible priority and implemented without further delay.

6.5 Masking screens

When the Olivier Theatre stage was first designed it was intended that it should be equipped with permanent masking screens to reduce the size of the stage when required. Their tracks and motors were provided but there were no funds for the screens themselves. Drawing no. 17 shows their intended layout and range of movement. They were to be independently rotated and tracked across stage.

When used in conjunction with sets designed in accordance with the acoustic advice given to the Theatre from time to time, masking screens with reflective surfaces up to a height of 2.5 metres would perform a useful additional acoustic function (where the set itself does not intervene) as they would strengthen beneficial early sound reflections to the audience.
9 EXTERNAL CLEANING

The external boarded concrete surfaces have now been subjected to the effects of weathering and atmospheric pollution for 16 years or more. The surfaces exposed to the prevailing winds and rain are relatively clean but show varying degrees of streaking, while the more sheltered surfaces are now considerably begrimed. In consequence, the building has lost its original freshness and gives the appearance of being uncared for.

Consideration should now be given to having all the external concrete properly cleaned and then treated to reduce both the effects of uneven weathering and the adherence of grime.

10 ARCHITECTURAL GUIDELINES

10.1 In their Report to The South Bank Theatre Board in November 1967 the Architects' stated that

'The architecture attempts visually and operationally to reflect the pioneer aims of Harley Granville-Barker, who conceived the National Theatre as a living organisation and an educational force rather than as a civic monument.'

It is recognised that changes will be required from time to time when new circumstances have to be confronted. The proposals outlined in this Study demonstrate that the National Theatre building can accept a degree of change to both its front-of-house and backstage areas while at the same time preserving its fundamental nature and architectural integrity.

10.2 The Olivier Theatre is the generating element from which the design of the whole building flows. Its present form, which was unanimously approved by the National Theatre Board's Building Committee in October 1966, evolved as the culmination of a long process of detailed study and continuous dialogue between the Architects and the members of the Building Committee. It should not now be radically changed in an attempt to overcome what are currently perceived by those who design productions for it, to be its limitations. Appropriate ways of making necessary acoustic adjustments have already been described in Section 8: Olivier Acoustics. The claim that raising the central stalls seating up to the balcony would 'improve acoustic performance by up to 75%' cannot be supported.

So far as the Lyttelton Theatre is concerned, forward movement of the stage or the addition of further seating by extending the balcony and creating boxes at the sides would be bound to raise difficulties with sightlines which would need careful study together with the effect such changes would have on the character of the auditorium as a whole.

10.3 The elements of which the other public areas of the National Theatre - the foyer and terraces - are composed can be considered in three groups, each distinct in itself but together contributing to the unity of the whole.
The first group comprises the fair faced concrete structural members - walls, columns, balustrades and diagrid floors - which define the principal spaces. They are the essential fabric of the building from which it derives its form and architectural coherence. They are permanent in nature.

The diagrid is a controlling element which must always read in its entirety and not be hidden, as would have been the case with the original proposals for the new Box Office. Nor should it have structures built up to it in the manner of the present Bookshop. Similarly, structures and fittings should be kept away from columns and walls so that columns and walls also read in their entirety from floor to diagrid. This is of particular importance where there is recessed lighting at the base.

Structures within the spaces controlled by the diagrid should not, by their form or detailing, be obtrusive nor destroy the continuity of the spaces in which they are placed. (The present Bookshop offends in this respect also).

Where, at any point, the foyer windows are moved outward to create more space internally, the head of the window, in their new position, should remain below and set back from the bottom edge of the terrace balustrade above. The faces of the terrace balustrades should not have glazing fixed to them nor be obscured by glazing placed in front of them. The diagrid edge beam immediately over the old Box Office comes into a different category and is less critical.

The second group includes bars, buffets, cloakrooms, new Box Office and facilities for retail activities. These elements are relatively permanent but may need to change from time to time. They are subordinate to the first group and this should be reflected in the way they are detailed. In particular, bulkheads should be set behind the diagrid edge beam, as at present, so that the supporting structure for the diagrid is always exposed. Design, materials and colour should be in sympathy with their surroundings. Accentuation can be achieved with lighting.
10.3.4 The third group is the furnishing — carpets, tables and chairs, signs, displays, bins, ashtrays, etc — which are subject to replacement or change on a fairly frequent basis. Fabric wall coverings are also in this group.

Particular care must be taken if a different colour is intended for the foyer carpet because of the effect it can have on the colour of the surrounding concrete. It is recommended that no decision should be made without first seeing a large sample in situ both in daylight and at night.

Reference has already been made to the ad hoc design and haphazard placing of the signs and notices which have been added since the building opened. There should be simple, well designed, systems for dealing with both and more care should be taken with their siting. One person should be given the responsibility for co-ordinating the requirements for all signs and notices.

Similar comments apply to display boards for posters etc. At the time the building was opened there was a simple basic system for these which has, partially at least, fallen into disuse. It should be revived and could be extended to other locations if those originally provided are now insufficient.

Fabric wall coverings should not be dominant in colour. They only occur on walls which are of secondary architectural importance and should remain so.

10.3.5 In conclusion, it must be stressed that the lighting is an integral part of the design of the foyers and greatly influences the atmosphere that is created. Many of the concrete surfaces are lit from fittings either set in the floor, mounted on lighting bars or suspended from the diagrid. They operate on reduced power in order to give the concrete warmth and reveal its texture rather than to light it brightly. All other light sources have similar characteristics and produce a warm atmosphere, even when they are concentrated to give sparkle, as at the bars and buffets. It is vitally important that no light sources are introduced which would give the concrete a cold appearance and destroy this atmosphere.
PLAN Restaurant Level

PLAN Olivier Cloakroom/Lyttelton Buffet Level
OLIVIER THEATRE
acoustic treatment to balcony front

KEY
1. 3mm plywood backing with hardwood framing.
2. 12mm absorbent material.
3. 6-9mm pile depth carpet.
4. Existing BEBA electrical boxes and socket outlets extended to carpet face.
5. New brackets to lower and extend lighting bar forward.

OLIVIER THEATRE
acoustic treatment to back wall of circle

KEY
1. Existing timber framing.
2. Existing absorbent material.
3. New panels to existing layout, consisting of 20g perforated 36% free steel sheet on hardwood framing and faced with open weave fabric.
OLIVIER THEATRE
acoustic treatment to side stalls doors

6m masking screens.
Each screen rotates and tracks across stage.

OLIVIER THEATRE
masking screens