

Design-led Development

New Medicine Galleries by Wilkinson Eyre conclude the first phase of an ambitious reinvention of London's Science Museum. Lucy Bullivant follows the story so far

Photos
Ed Reeve

Back in 1926 the scientist James Lovelock, now 100, and world famous for proposing the Gaia hypothesis, but then a six-year-old boy, paid his first visit to the Science Museum. He "loved it, and kept coming back. In fact, the only place I found as a youngster that would give me ideas that were the source of inventions was the Science Museum". Today half a million children a year — the overall annual visitor total is three million — visit the museum, either with their families, friends or in animated school groups that spill all day long through the spaces. Lovelock, who couldn't initially afford to go to university, is surely very happy that the museum remains very largely free of charge.

Change has been a constant at the museum, originally built between 1919-28, but in recent years a wealth of agile architectural, design and art talent has been strategically applied across its spaces. Supporting the evolving identity of this leading public institution at a profound level, the range of inspired commissions grasps the need to vary the spatial and narrative strategy and atmosphere for the benefit of the museum's diverse public.

Visitors in the know head straight up to the delightful third-floor Wonderlab, designed by muf architecture/art, which opened in 2016 and is the UK's biggest interactive science gallery. It is a space designed to have fun in, exploring more than 50 exhibits laid out in seven zones. With regular demonstrations and shows, the gallery's aim is to evoke curiosity, awe and eager interaction in a space originally divided into a maze of small dark rooms. Muf opened the robust gallery up to natural light and gave it a lively, playground-like feel.

On level two, 'Mathematics: the Winton Gallery', Zaha Hadid Architects' impactful, enveloping space, leads onto the new 'Science City 1550-1800: the Linbury Gallery'. Opened in September 2019, its narrative is about London's development into a leading global hub of trade, exploration and scientific enquiry. Designer Gitta Gschwendtner's immersive cityscape is a masterly setting for some of the museum's most beautiful and historically significant objects. On the other side of the Maths gallery is the 2500-square-metre 'Information Age: Six Networks That Changed Our World', designed by Universal Design Studio, from which the Queen sent her first tweet when she opened it in 2014.

Below left
An artwork by Mark Quinn, 'The Self-Conscious Gene', marks the entrance to Wilkinson Eyre's Medicine Galleries.

Below
Hospital theatre installation at the entrance to the 'Medicine & Treatments' and 'Medicine & Communities' zones in the Medicine Galleries.



An overtly design-led approach predates the current masterplan, having been tested with a trio of playful basement galleries designed by Ben Kelly in 1995 (since replaced), and proved by the opening in 2000 of the Wellcome Wing by architect MJP, with exhibitions by Wilkinson Eyre including 'Making the Modern World' on the ground floor. With its pietra serena stone floor, and white concrete plinths for a number of the major iconic objects, the architect gave the setting a contemplative ambience similar to that of an art gallery.

In November 2019 the Museum launched its newest suite of exhibition spaces — the £24m Wilkinson Eyre-designed 'Medicine: The Wellcome Galleries' — showing how the quest to better understand the human body has transformed healthcare. With a towering bronze figure by Marc Quinn at its threshold, the first-floor gallery runs from the Exhibition Road end of the building to the Wellcome Wing. The treatment of five spaces symbolises the human life cycle, evolving from dark panelling in the first zone, past an intriguing wunderkammer concealing the lifts in between, to daylight galleries overlooking the ground-floor 'Making of the Modern World' gallery, and back to darkness for a final contemplative gallery, 'Faith, Hope and Fear'.

The project almost doubles the permanent display space here to 3000 square metres and was eight years in the making. The first year, says Julia Glynn-Smith, principal architect at Wilkinson Eyre, was spent in dialogue with the interpretation team about which objects and environmental controls would make best sense. With over 3000 objects selected from the collections of Science Museum Group and Henry Wellcome, the galleries present a "huge variety and you have to design for that". The design team went on to build a 3D digital model, and held some VR sessions with the curators. "Everyone in the team shadowed visitors", recalls Glynn-Smith. "I like putting myself in the position of the end-user. I was brought here as a child. It's free, so a lot of cross-generational people come".

The challenge facing architects, designers, artists and curators is about making science relevant to people's lives. Clear captions designed by Lucy Holmes of Holmes Wood are integrated within the displays. Woven into the galleries are a series of portraits by photographer Sián Davey of patients and practitioners which challenge the stigma associated with difference and encourage reflection on the human side of illness and treatment.

"A lot of the brief concerned alterations to the existing architecture", explains Jim Eyre, partner at Wilkinson Eyre, "thinking very much about sustainability, including reducing energy bills". A second dedicated architect team at Wilkinson Eyre replaced all the windows with all new Crittall ones with non-reflective glass, and sensor-operated blinds, "letting the outside in". The project also entailed the installation of a lot of acoustic insulation, and a timber floor throughout.

At the unveiling of the Medicine Gallery, the museum's director of masterplan and estate, Karen Livingstone, described the thorough, ongoing creative overhaul the institution has undergone: "In eight years we have done more than half the museum". She and director Ian Blatchford crossed the street from the V&A in 2010 to develop a transformational masterplan, and there is a clear analogy between their strategic plan and the developmental approach adopted by their neighbour in recent years. "You have to have that long-term vision", says Livingstone, who began by commissioning a conservation study and planning resilient, high-quality interventions. "We are using an architecture and design-led approach as a way to engage with our mission".

Right

Wilkinson Eyre designed more than 100 display cases for the Medicine Galleries, each tailored to its contents. In addition, the architect created a series of brushed bronze fixed and freestanding units to accommodate 63 audio-visual interactive elements.

Right, below

A 'wunderkammer' within the 'Exploring Medicine' zone houses 1000 objects and wraps around the museum's central lift bank.

Bottom

Medicine Galleries location plan and floor plan. Wilkinson Eyre's design takes the visitor on a journey through five distinct themes, and is conceived as a progression from darkness into light and back to darkness, symbolising the human life cycle. These themes are reinforced through the use of materials and lighting.



Above

Left to right: the £6m 'Mathematics: the Winton Gallery', designed by Zaha Hadid Architects, opened in 2016 (ph: Nick Guttridge); 'Information Age: Six Networks that Changed our World', designed by Universal Design Studio, opened in 2014 (ph: Andrew Meredith); 'Science City 1550-1800: the Linbury Gallery', by Gitta Gschwendtner, opened in 2019 (ph: Simon Sorted).

Right

The 2,300-square-metre, third-floor 'Wonderlab: the Statoil Gallery', designed by muf architecture/art, opened in 2016 (ph: Plastiques).



Key

- | | |
|-----------------------|----------------------------|
| 1 New passenger lifts | 5 'Exploring Medicine' |
| 2 Entrance | 6 'Medicine & Communities' |
| 3 'Medicine & Bodies' | 7 'Medicine & Treatments' |
| 4 New toilets | 8 'Faith, Hope & Fear' |



Right, below

The central section of the first-floor Medicine Galleries, containing the 'Medicine & Treatments' and 'Medicine & Communities' zones, overlooks existing exhibition space on the level below. Frameless glass balustrade cases line the openings to the double-height space.

The 3,000-square-metre Medicine Galleries contains more than 3000 objects selected from the collections of the Science Museum and Henry Wellcome. They include a sixteenth-century amputation, eighteenth-century wax anatomical figures, a 1911 pharmacy shopfront and interior, and a 1930s padded cell.



For Wilkinson Eyre, as architects involved with the museum for more than 20 years, "having a masterplan is a more aligned way of advancing, allowing us to redo the neglected spaces", says Glynn-Smith. "Everything has been considered as an investment".

Jim Eyre concurs: "I very excited when Ian and Karen joined the museum. They have a refreshing approach to exhibits, and one thing I particularly like is the introduction of artworks within gallery displays. The art can tell you about the science". In the Medicine Galleries, for example, he admires the curatorial boldness of including Eleanor Crook's 'Santa Medicina', a bronze figure at once surgeon and saint, within the concluding contemplative space. "Medicine is a giant act of trust".

Some of the museum's recent projects also reflect its need to attract funding. In 2019 the masterplan vision spawned a 'cultivation space' for supporters, the Smith Centre, a conversion by HAT Projects of a former Royal Mail sorting office behind the museum's main concourse. "We saw the opportunity to reclaim the space and connect it to our estate", says Livingstone. The museum now links seamlessly with the salon-type space used for socialising, board meetings, events, lectures and dinners. Featuring bespoke furniture, and restored parquet floors and glazed brick walls, it is highly insulated and soundproofed, and "IT'ed up to the hilt. Tim Berners-Lee or Bill Gates could be speaking here, for example".

Other recent additions include the 1100-square-metre Illuminate events spaces designed by Mary Duggan Architects, stacked one over the other on levels four and five, in a bit of the building inserted in the 1980s, now connected by an internal staircase. The spaces are distinctive and flexible, with a system of fabric partitions, and a top-level panoramic window. The comfortable ground-floor Hans Rausing Lecture Theatre, designed by Dow Jones Architects, opened in 2017 next to the Energy Café. Revealing the barrel vault of the original space, it has an entrance in engraved stainless steel, inspired by the string models used by the museum as education tools.

The masterplan embraces plans past, present and future for the many listed regional buildings within the Science Museum Group, which since 2012 has included the Science and Industry Museum in Manchester. The National Science and Media Museum in Bradford was reconfigured and refurbished in 2017 by Ab Rogers, and now includes its own exciting Wonderlab exploring the science of light and sound, eliciting a 25 per cent increase in visitor numbers. The National Collections Centre near Swindon will open to the public from 2023. Vision 2025 is an ambitious plan to establish the National Railway Museum in York as the greatest of its kind globally by 2025, to mark its fiftieth anniversary.

"Everything comes back to an intelligent response to our audiences", says Livingstone. The Museum hadn't been doing big gallery projects in recent years, but "the masterplan is a continuation of a long history", enabling its future sustainability. For that, "we need to know our buildings really well", she says, which today, thanks to architects like Wilkinson Eyre, is the case, as is the fact that "we've developed a strong responsibility for our procurements".

It may seem, acknowledges Livingstone, that the museum has "done things in a relatively rapid way, but it deliberately decided to take an incremental approach". The masterplan vision enables the Science Museum to have the best of all worlds in order to truly welcome everyone, because with diverse projects linked by a 'golden thread' of vision, sustainability and consistency in standards, "we can choose inspiring differences in pace, language and narratives for each space". **/f**



Above

Deities & Saints showcase, and faith alcove within the 'Faith, Hope & Fear' zone of the Medicine Gallery.

Left

Artwork by Eleanor Crook, 'Santa Medicina', at the start of the 'Faith, Hope & Fear' zone.



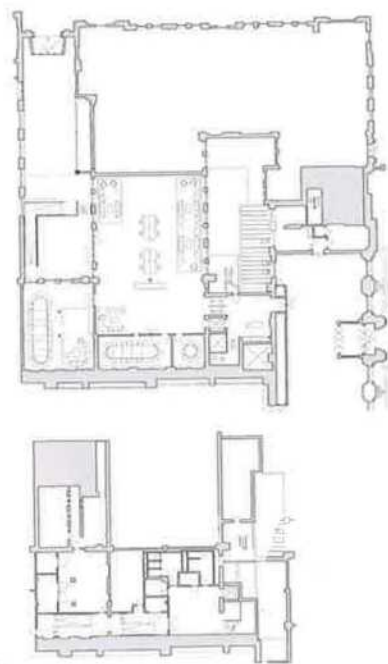
Right, below

Completed in 2019, the £3.5m Smith Centre for supporters of the Science Museum was designed by HAT Projects and occupies a former Royal Mail sorting office and yard behind the museum's main concourse (phs: Philip Vile).

HAT conceived the centre as a 'salon' for socialising, events and lectures, and aimed to revive the building's original form and fabric. Glazed brickwork in two colours was revealed under layers of paint, and parquet floors were **uncovered** and restored. A timber-and-glass roof lantern was restored and reglazed.

A timber-clad wall divides smaller meeting rooms from the main salon and includes a vitrine for the display of objects from the museum's collection. The centre also includes a new boardroom for the museum, to which it is linked by newly-created front- and back-of-house routes.

The centre is furnished with a mix of bespoke items and classic pieces dating from the 1930s to the present day.



Left, below

Designed by Mary Duggan Architects and completed in 2019, a 1,100-square-metre events space now occupies the Science Museum's former History of Medicine exhibition, in a purpose-built structure on the top two floors of the building, erected in the early 1980s (phs: Simone Bossi).

"We conceived of a building composed of two functional parts: service and served", says MDA. Two large rooms, stacked on top of one another, can accommodate as many as 450 people, while the 'service' spaces, contained behind partitions and panels, provide facilities to support their activities.

Patterns on the event spaces' floors act as organisational markers, defining areas for the installation of furniture for particular forms of activity.

Fabric partitions of varying opacity, influenced by Mies van der Rohe and Lily Reich's Cafe Samt & Seide, lend flexibility and — in combination with lighting — can be used to alter the ambience within the spaces.

