



Creating a diverse and resilient future for The Arts Theatre Cambridge

The refurbished
Arts Theatre
auditorium

Photo: Philip Vile

Showcase

Giles Wheeldon, Associate Director at Ian Chalk Architects reflects on the two-phase strategy to secure the long-term future of this Grade II listed Cambridge institution.

Located in the historic heart of the city, a stone's throw from King's College, The Arts Theatre Cambridge has recently reopened following a 10-month refurbishment by Ian Chalk Architects.

Designed as the first phase of a long-term strategy to diversify the established arts venue, the works involved a full refurbishment of the original auditorium, technical upgrades to the stage house, refurbishment of back-of-house spaces and front-of-house restrooms.

Egalitarian and independent roots

Originally the brainchild of economist and Arts Council founder John Maynard Keynes, and designed by George Kennedy, the theatre opened in 1936 and has helped launch the careers of notable actors including Sir Ian McKellen, Sir Derek Jacobi, Dame Emma Thompson and Sir Stephen Fry. Keynes' ambition was to cultivate artistic excellence outside London and provide the university city with much needed cultural resource, bringing equal benefit to 'town and gown'.

The theatre has undergone several alterations in its lifetime, most notably a substantial rebuild in the early 1990s, which demolished most

of the original building, preserving only the brick walls of the auditorium and the balcony structure. It remains a highly important space in the city and the East of England, acting as a professional stage for major touring companies. The Arts Theatre Cambridge is an independent charitable trust whose mission is "to bring people together to inspire and celebrate the power of live performance."

The refurbishment was made possible thanks to Lord David and Dame Susie Sainsbury, through a generous grant from the Gatsby Charitable Foundation, and with support from Backstage Trust, who, alongside Project Director Simon Harper from Harper Tackley, have been a driving force in making the project a reality.

'From the early stages, Ian Chalk Architects showed us imaginative ways a tired and impractical theatre could be revived. Echoes of the 1936 theatre remain, as they have skillfully reimagined the auditorium with exceptional craftsmanship as a sophisticated and welcoming home for the future of theatre in Cambridge.'

Dame Susie Sainsbury, Backstage Trust

Showcase

The main theatre entrance,
relocated to its original
Peas Hill position

Photo:
Philip Vile



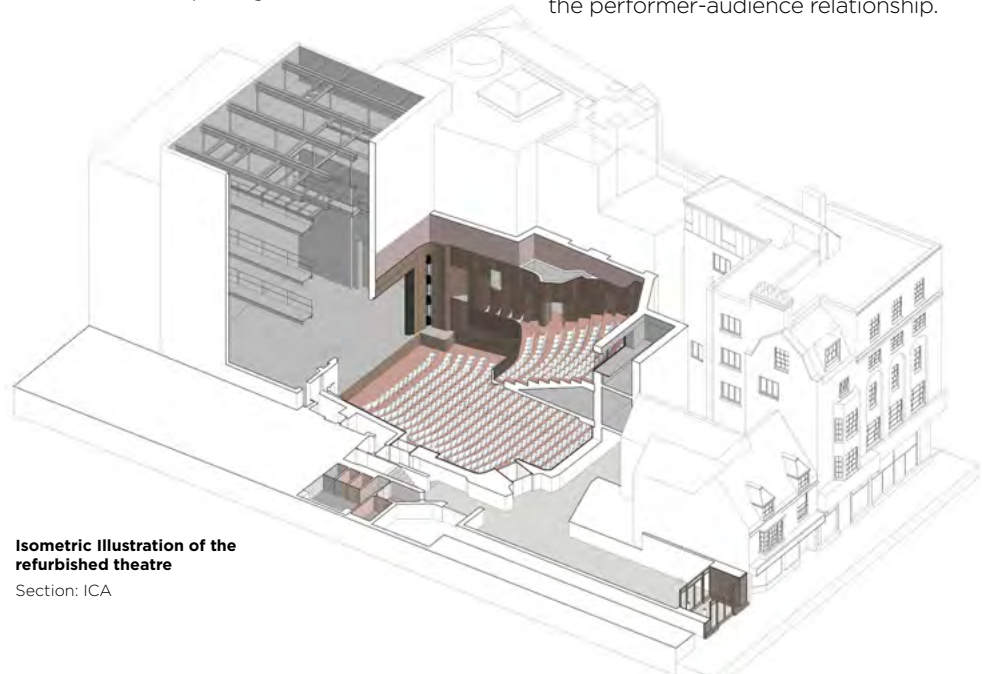
A long-term vision for production diversity

When Ian Chalk Architects (ICA) won the invited bid in 2021, the client's principal ambition was to bring the main house into the 21st-century to allow a greater number of shows to be hosted, create a seamless turnover of visiting productions, refresh the architecture and improve audience comfort.

Running parallel to this was a feasibility study exploring how to extend beyond a single space, expanding on Keynes' original vision while providing the theatre with an opportunity to produce its own work. A three-and-a-half-year design, funding and procurement period followed, culminating in a two-phase project to deliver both spaces, with Phase 1 completing in late 2025.

As a much-loved, used and known institution, our design approach was one of careful stewardship. We were acutely aware of the emotional connection many people have to the theatre, and it is this personal connection that has made the space so successful over the years. However, there was no hiding from the fact that The Arts was in desperate need of extensive refurbishment to keep up with the increasingly complex requirements of touring shows.

We aimed to deliver refurbished spaces that felt gently familiar, with minor adjustments that would make tangible differences to their running and comfort. Most important was preserving the aspects that make The Arts so special to its patrons: from the warmth of the timber to the unique acoustic qualities and the intimacy of the performer-audience relationship.



Isometric illustration of the
refurbished theatre

Section: ICA

A scholarly and pragmatic approach

Like all our work on existing buildings, our vision for The Arts started with extensive historical, social and technical research. Deep dives into the archives, conversations with staff and volunteer groups and numerous research trips to see productions of all types - and from all angles - formed the foundation of our approach.

The primary criteria set by the brief was to improve both the technical and practical performance of the space - the equipment, seats and sightlines. Working alongside Theatre Consultant Charcoalblue, we defined the principles of these changes and interventions to ensure our solutions were neatly integrated into the new fabric.

Architecturally, we aimed to reduce the visual clutter of technical equipment whilst providing capacity for future flexibility and adaptation. In the stage house, the ambition was simple: upgrade the sound, lighting and audio-visual systems to provide top-of-the-range technical infrastructure. Beyond the main house, we focused on reinstating the street entrance on Peas Hill, new front-of-house restrooms, and back-of-house dressing rooms; the scope of works did not extend to the bars or foyer.

At stalls, removing the central aisle gathers the audience together, while raking the floor improves sightlines and allows additional, much-improved positioning for wheelchair users. At circle, new tiers equalise previously uneven steps to improve legibility. The replanned space has also allowed us to introduce perimeter handrails to improve accessibility.

'Ian Chalk Architects has brought immense value to The Arts Theatre at a pivotal point in its history by breathing new life into our auditorium. Balancing innovation with respect for heritage, their design has surpassed my expectations. Aspects of the building loved by all have been carefully preserved, with memories woven into the new design. It feels both renewed and timeless.'

Victoria Beechey, Executive Director and Joint Interim CEO, The Arts Theatre Cambridge

New sound and light lock lobbies at circle significantly reduce noise transfer and enhance the audience experience. Crucially, this unlocks the future viability of the new studio above by providing a protected escape via two existing staircases.

The big architectural move within the auditorium was removing the harshly faceted geometry in the space, softening the sharpness

and high contrast of the lighting and calming the visual noise of the surroundings. Alongside the introduction of gentle rounded corners, a new curving and descending balcony front replaces the existing one, with the largely unused boxes giving way to slip seating, which helps maintain the relationship between audience and performer. The revised seating arrangement provides 664 seats across stalls and circle - two fewer than the original but with drastically improved comfort, sightlines and accessibility.

The whole auditorium has been lined with beautifully crafted maple timber panelling; the richly detailed finish is shaped by acoustic requirements to maintain excellent clarity of sound, particularly for the spoken word. The curly maple timber pays homage to the original birds-eye maple lining of the 1930s theatre, deduced following the discovery of grainy black and white photos from the archive.

Back of house, the existing warren of basement corridors was simplified through a rationalised fire strategy, providing more coherent and easier to use spaces. Dressing room layouts were adjusted to maximise space and refitted with new finishes and lighting, with larger crew and green rooms created. Here, the materials palette was deliberately domestic in feel while remaining robust; oak, plywood and marmoleum combining to develop a sense of quality and calm. The front-of-house restrooms have been reconfigured to provide 21 WCs, six more than before.

Overcoming specific challenges and complexities

Inevitably, there are challenges working with an existing building. Given the specific disruption to theatres caused by closure, it is increasingly common to find areas that require quick repair or adjustment that don't align with the expected strategies. From experience, we do our best to plan for these 'known unknowns' through site investigations and studies of historic drawings ahead of closure.

As we examined the existing building, it became clear there were areas in need of significant repair beyond our anticipated contingency. Moreover, as we removed panels within the auditorium, the anticipated build-ups varied; steelwork was unprotected, and masonry structures were out of expected tolerance. In a building where space is a premium and seat numbers, aisle widths and sightlines rest on the accuracy of implementation, these variables can be critical.

During localised alterations to the basement ceilings, we discovered areas of non-compliant work that were concealed from view and beyond the original scope of the project. These included issues with fire-stopping of service penetrations and compartment separations, subsequently leading to a building-wide fire strategy review and the implementation of new fire-lined ceilings and specialist fire-stopping upgrades to all

Showcase

Showcase

Detailing of
the new curved
balcony front
Photo: Philip Vile

service voids. These difficulties are not unique to The Arts, and given the necessity for life safety, their rectification was paramount. With ever-tighter regulations, these issues will become increasingly prevalent across all refurbishment projects.

These discoveries, made during a live, fast-moving site process, tested our team's ability to navigate complex design and compliance matters while implementing changes and understanding their cost implications. The success of this is entirely down to good working relationships between the client, design team and contractor, who came together to agree on the right solutions to deliver a viable project. It's a good reminder that, as the construction sector becomes ever more digitised and legally intricate - particularly with existing and historic structures - the most reliable outcomes frequently arise from direct, on-site, physical resolution.

Testing and refining details

This approach to physical resolution was equally important at the earlier design stages. Our use of full-scale technical mock-ups allowed for preconstruction adjustments and physical validation of ideas. These tools are more than just visual aids, they are a prototype for the minutiae of working interfaces like facility panel locations, lighting bars and cabling zones.

Working alongside Neil Burke Joinery and technical specialists Push The Button, we designed three mock-ups which were to become a springboard for change rather than merely visual validation. These not only allowed for testing of final finishes, but also construction methods, fixing details, lighting bars and facilities panels. It allowed detailed, millimetre-accurate build tolerances to ensure cable routes were as generous as possible, while keeping build-ups small, and it allowed precise testing of lighting solutions and relative proximity to walls. More subtly, it provided a test of the working relationship between the specialist subcontractors, architect, main contractor and client.

The result of this process was that, while site-stage discoveries on the historic building were varied and complex, the sign-off and installation of the finished product was without surprise; the end result was a rich cacophony of maple.

Delivering on efficiency and decarbonisation

At a macro level, the project addressed the challenges of a two-phase approach, where decisions about the efficiency of one phase affect the delivery of the other. This required an iterative approach to ensure that abortive works in the first phase were controlled, but that the installation was robust enough to safeguard complete separation from a future project. These conversations focused around works at plant level, and the complexities of decommissioning new installations around planned future demolition - all within a planning consent derived for a single-phase project. These adjustments have undoubtedly streamlined and future-proofed the project by minimising unnecessary demolition and reducing potential dark periods for the theatre in Phase 2.

'ICA has been a true, collaborative partner throughout the journey, taking time to listen to theatre users and understand the building they were entrusted with. The team were pragmatic and respectful but also knew when something was worth fighting for to retain the vision. The new design has transformed the auditorium and enhanced its intimate dynamic - it is a thing of beauty.'

**Simon Harper, Client Project Director,
Harper Tackley**





The proposed new rooftop studio
Previs: ICA

Considering the limited demolition involved in Phase 1, its primary sustainable impact is focused on the social and economic sustainability of reinvigorating the space for continued use. At a time when funding for regional arts projects is being constantly eroded, the project shows confidence in regional operations and keeps culture at the heart of the community.

More directly, the project embodies a simple, strategic decision-making framework which has set The Arts on its pathway to decarbonisation. The first air source heat pump was installed alongside the infrastructure for future heat pumps to be 'plugged in' to provide the building's heating. Transitioning from gas boilers to an all-electric solution will take advantage of a decarbonising national electric grid, and careful analysis on site allowed for the repair and reuse of existing ductwork, providing an estimated embodied carbon saving of 5,590 kgCO₂e over the equivalent full replacement.

Plans for Phase 2 will increase the number of air source heat pumps and add a photovoltaic array to provide localised renewable energy, resulting in an operational carbon saving of 1,635 kgCO₂e.

Beyond data-driven sustainability parameters, the project also includes a less tangible but equally beneficial approach to reuse. To prevent waste, 400 of the theatre's redundant chairs were carefully transported for use by another of our regional theatre projects, The Amulet in Shepton Mallet. Acquiring seats was a significant step in the local community group working to save the theatre, which has been on the Theatres Trust Theatres at Risk Register since 2022.

Collectively, this approach to decarbonisation summarises our overarching approach to sustainability - long-term, simple and practical solutions which are built in rather than added on at the end.

The second phase

Looking ahead, the completion of the main house represents a significant milestone, bringing the theatre one step closer to the Phase 2 vision, a new rooftop studio. This new hybrid cross-laminated timber and steel structure has been designed with practicality and longevity at its heart, and the demolition of the theatre's unused restaurant will open up new possibilities to safeguard operations of the main house.

Intended to begin in spring 2026 - funding allowing - and located directly atop the auditorium, the box-in-box design acoustically isolates the studio from the main house, and includes its own foyer and bar facilities to help keep operations separate. Its construction has been carefully planned through a precontract service agreement to limit impact on the main house below and the surrounding neighbours. Scaffold will be erected outside university exam weeks to limit disturbance to local students; demolition works will progress outside show hours with no impact on the space below; and a single dark period will take place in the quietest month to minimise any financial impact on the theatre.

The result will include a new 200-seat studio designed to run concurrently with the main house, providing the opportunity to deliver a more diverse programme to a growing audience demographic, increase the theatre's artistic reputation and educational impact, and support greater engagement with arts funders and individual donors.



Modified stage and seating layouts improve the audience and performer experience

Photo: Philip Vile

Showcase

Measuring success through community

The proof of success of any regional theatre lies in its continued use and engagement with its local community, and we are continuing to work with the theatre as it returns to its role as the primary cultural institution in Cambridge. As a piece of architecture, we are delighted with how the space has come together - a testament to the hard work of a huge number of dedicated people.

The result is a more inclusive and democratic venue, bringing previously disparate components together to enhance the experience of everyone involved in creating and enjoying the performing arts. Looking ahead, the new studio theatre will become a major incubator for emerging theatre makers, community productions and the university, strengthening the city's cultural offer in line with Keynes' original mandate.

'ICA has delivered a meticulous and passionate transformation which exceeded our brief, driven by an unwavering commitment to excellence, craftsmanship and a kindness we hadn't anticipated. Their designs have preserved everything our audiences love, while ensuring the auditorium will be enjoyed by generations to come. We could not be prouder.'

Rachel Tackley, Interim Creative Director and Joint CEO, The Arts Theatre Cambridge

Project Team

Project director
Harper Tackley
Project manager
Savills
Architect
Ian Chalk Architects
Quantity surveyor
AECOM
Theatre consultant and acoustician
Charcoalblue

Services and structural engineer
Buro Happold
Fire engineer
Buro Happold
Fire consultant
Atelier 10
Heritage consultant
Alan Baxter
Approved inspector and CDM
Sweco

BREEAM consultant
Buro Happold
Main contractor
Cocksedge Building Services
Joinery
Neil Burke Joinery
Technical infrastructure
Push The Button