A Clear Welcome

Many would consider the door to a building to be the single most important feature, welcoming visitors whilst at the same time maintaining security and ensuring warmth and comfort once you are within the building. Many churches and heritage buildings are justly proud of their traditional wooden doors yet nevertheless when managing a centuries old building it can be beneficial to reassess the entrance and consider the advantages of a more contemporary door installation.

'Replacing or supplementing traditional wooden doors with contemporary glass has so many advantages', says Peter Hazeldean, MD of Ion Glass who specialise in architectural glass installations in church and heritage buildings. 'The initial impression created can be made more welcoming, allowing visitors to see inside the building without compromising security. Improving the flow of light to the interior is often a significant benefit, whilst at the

Main Picture: St Andrew Undershaft external doors Insert: St Andrew Undershaft doors.

same time well fitting glass doors will drastically improve heat retention and exclude draughts.

There's no need to discard the existing doors as it's possible to install a glass lobby or secondary internal glass doors to enjoy all the benefits of a modern installation whilst maintaining the traditional look and feel of the building.

Glass doors are surprisingly versatile. They can be specified to meet a wide range of criteria including unusual dimensions; providing full security and alarm systems; acoustic or fire resistant glass; bespoke handles and individually designed logos or glass manifestations.

Ion Glass have worked on numerous installations in churches and ancient buildings including the Fusilier Museum at the Tower of London, St Andrew Undershaft in the City of London, the beautiful chapel at the Leys School in Cambridge and the historic church of St Paul's Without the Walls in Canterbury.

The Fusilier Museum is housed in the Tower of London where it tells the history of this illustrious British Infantry regiment from its formation in 1685 when King James II issued a Royal Warrant to raise an infantry force to guard the guns at the Tower of London. The museum is rich in historical artefacts, including the uniform and bearskin of King George V. The building still houses the Royal Regiment of Fusiliers' Regimental Headquarters and the Officers' Mess which is used for ceremonial occasions and formal dinners.

Ion Glass supplied two sets of doors to the museum: the automatic frameless glass sliding doors at the entrance comprise of two sliding door leafs and one fixed side screen, designed for maximum stability and heavy usage.

Peter Hazeldean commented, 'The automatic door settings are fully programmable so the museum can decide whether to keep the doors continuously open, allow traffic only in one direction, have a reduced opening width to retain heat in the winter or more open access in the summer months. The doors also have an applied manifestation with the Fusiliers crest and a welcome message.'

Inside the building, Ion also installed a set of double glass fire doors and a full height glass header panel, creating an impressive entrance for guests to the Regimental Headquarters. The doors are fully fire-rated with an insulated transom section, hydraulic assisted closers and a secure entry system. 'The doors are perfect in any situation where security

Above: Decorative sliding glass doors at Tower of London

Above: The Leys Cambridge bespoke glass doors showing glass cutout detail

Above: St Paul's Canterbury door

and protection against fire is an issue,' said Peter. 'Glass doors are the ideal choice in this situation giving visual access and welcome whilst maintaining optimum security and protection. The door to the Fusiliers' HQ was fitted with direct dial buzzers and an intercom, an additional function for added security.'

St Paul's Without the Walls in Canterbury dates back to the 13th century and has seen many changes and developments since the original single aisled building built just outside the city walls (hence the name, 'without' meaning 'outside'). The church has been enlarged and extended a number of times, with many ancient burials in vaults under the floor.

Recently a significant reordering of the building was commissioned to bring the building more in line with current needs, welcoming people to use the church for concerts and conferences as well as traditional worship. The fixed pews were replaced with modern seating, a screen was installed over the chancel and lighting and heating were updated, creating a more welcoming, flexible and contemporary space.

As part of the reordering the church managers wanted to make it possible to leave the main door unlocked and allow visitors to enjoy a view of the interior at all times.

Two sets of bespoke frameless glass doors were installed to create a secure lobby area within the tower at the entrance to the church. With minimal fixings the doors offer little to obscure the view of the nave but provide full security, with the option to hold the doors fully open when required. Glass overpanels were accurately manufactured to ensure a precise fit into the Gothic arches and fitted with discreet stainless steel fixings to ensure minimal impact on the original stone structure of the tower.

Peter commented, 'Whilst the arches look identical they were of course hewn by hand and required individual templating to ensure the two overpanels fitted accurately. The finished result allows visitors to see the interior of this historic church at all times. It will also improve heat retention as the warmth generated by the new underfloor heating will stay within the church rather than being lost up the tower or out through the original entrance doors.'

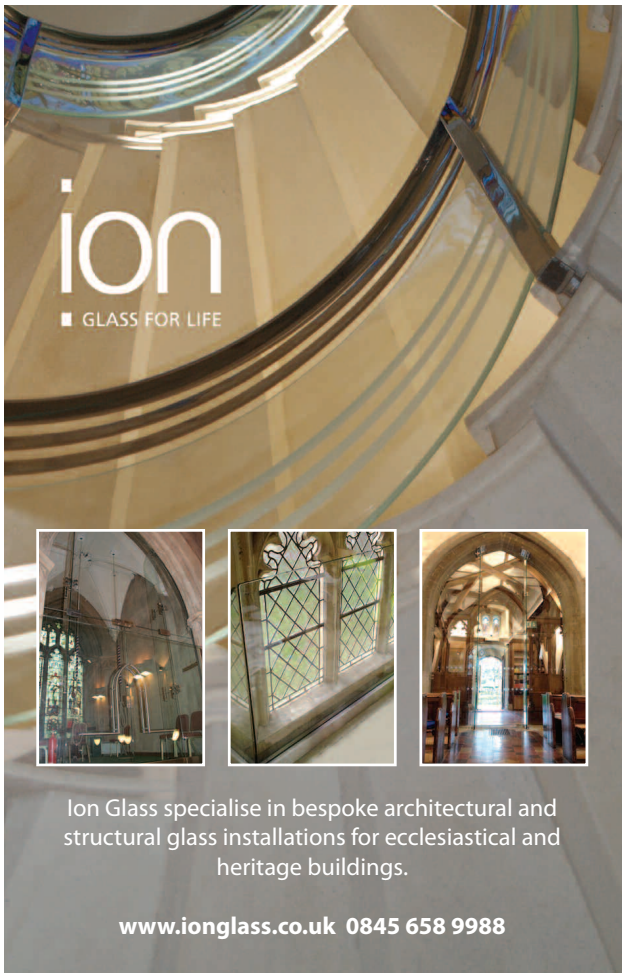
St Andrew Undershaft is located in the heart of the financial centre of London on St Mary Axe. A church has existed on this site since the 12th century, with the current building dating back to 1532 – it's a rare example of a city church that has survived both the Great Fire of London and the Blitz.

St Andrew's has become a vibrant centre for bible studies and prayer meetings, arranging small groups throughout the day, seven days a week. Students come from all walks of life including city workers, university and college students, women's groups and a Sunday school.

Recently an extensive refurbishment programme was undertaken to increase the size and functionality of the internal space, so that even more people could be welcomed to the regular study sessions.

As part of the improvements new internal glass entrance doors were designed to provide a secure but welcoming entrance. Ion Glass were commissioned to provide all the glass for the project, including the new doors.

Peter Hazeldean explained, 'The doors are set into a stone archway with side panels either side and an arched over panel of fixed glass, all of which had to be accurately shaped to the stone and clamp fixed in place. We've developed wholly accurate measuring systems which ensures the glass fits perfectly against the original stonework.



A stainless steel transom, houses the upper pivot point for the pivot doors which was also a fixing point for the maglock to allow the doors to be locked as part of the church alarm system.

The doors are part of the much more extensive project that includes the curved glass balustrading across the front of the new mezzanine floor and glass panels to protect the original stained glass windows. But for us, the door is the first element of the work to be seen by visitors to the church and we're delighted that it works flawlessly and looks fantastic too!'

The Leys School in Cambridge is a Methodist school founded in 1875 and benefits from a beautiful chapel where the school gathers for regular weekday and Sunday services.

The original external doors led into a lobby area with secondary carved wooden doors that opened on to the nave. When both sets of doors were open the ensuing draught resulted in significant heat loss but closing the doors not only minimised the flow of natural light into the building it also prevented visitors from enjoying a view of the nave on arrival.

Ion Glass were commissioned to supply fully weather-proof, frameless glass doors, allowing the outside wooden doors to be permanently held open. A full glass ensemble was created to fit perfectly into the original carved French oak framework with an overhead transom and two side panels – which meant that the new frameless arched glass doors could be manufactured in a much more manageable size than their timber predecessors.

Inside, the carved inner doors were relocated in the lobby, replacing an elderly curtain and creating useful cupboard space. In their place, Ion fitted a pair of stylish frameless glass doors featuring the clam shell motif of the Methodist chapel.

'With their sleek and contemporary finish, glass doors can look deceptively simple,' commented Peter. 'In the case of the Leys School we had to design a functional interface between the overhead transom and the arch of the doors where it met the side panels – more tricky than it sounds when you have to consider the manufacturing tolerances of toughened glass.'

Technical expertise and experience is essential when working with structural glass, especially within church and heritage environments where there is an added requirement to produce a sensitive result that has minimal physical and visual impact on the original architecture. Commissioning doors in glass will create an entrance that is stylish, contemporary and above all wholly practical. ■

For more information about bespoke glass doors and other structural glass installations in churches and heritage buildings contact visit www.ionglass.co.uk or call Ion Glass on 0845 658 9988.

Below: St Paul's Canterbury