

ALL ABOUT:

# Period Style Windows

Windows play the greatest role in defining the exterior of a home, pointing to its architectural style, yet modern regulations and advancements so often get in the way of achieving authenticity. Melanie Griffiths explains how to get the detailing spot on





## Which Window Type?

DETERMINE WHETHER SASHES OR CASEMENTS ARE BEST

The UK has an enviably rich history of windows, affected by technological advancements, as well as changing design trends and regional fashions. But, until the 20th century, only two types of opening window prevailed: casements and sliding sashes.

The casement is the simplest form of window. It consists of an outer frame holding one or more glazed 'sashes' (a single glazed frame) on hinges; usually side-hung. Casements are traditionally operated by latches with the sash held open by an adjustable casement stay.

*LEFT* A clever way of making a house feel as though it has evolved over time is to use a mix of sashes and casements, common in cottages, where the owners often couldn't afford to change every window. Beyond Conservation casements by Mumford & Wood offer a selection of slender glazing bars (01621 818155)

A sliding sash window is made up of two sashes, with one positioned in front and one behind, set into vertical grooves; this allows the sashes to slide up and down – although some sash windows have only one moveable sash – held in place by lead weights on cords. In many modern windows, the weights have been replaced with springs – “but sprung balance-sliding sashes should be avoided when seeking authenticity,” says Scots of Thrapston manager Ian Hodgkin. Some modern sashes also tilt for easy cleaning.

New windows must be in a style appropriate to the period you are recreating (SEE OVERLEAF), but check the local vernacular for any regional fashions. For example, in some areas, notably Yorkshire, horizontally sliding sashes were popular.

### WHERE TO BUY

Builders' merchants and large joiners stock some nice standard-size windows, but check closely that the details appear authentic (trickle vents are usually unavoidable when ordering off-the-shelf). Otherwise, joiners will create bespoke windows. Order months in advance, as the lead-in times can be long.

### WHAT TO PAY

Prices start from £2-300 for a simple design up to £1,200-1,400 for a large bespoke window. In general, softwood costs roughly £2-300/m<sup>2</sup>; £3-400/m<sup>2</sup> for hardwood; £250-450/m<sup>2</sup> for metal. Bargain hard, as large savings off the list price can be achieved.

### WHO FITS THEM

Unless ordering from a supply-and-fit company, you will need to arrange your own installation. A carpenter or joiner will be able to do this for you; they cost around £160-200 a day.

## TOP SASHES



The elegant sash was crafted by Scots of Thrapston (01832 10704)



Jeld-Wen's 4x6 Bar is a good white-shelf sash window (0843 122 2890)



Conservation sliding sash window from Mumford & Wood (01621 818155)

## Can Timber Windows Be Renovated?

Alan Bell of window repair specialist Ventrola says: “It is always worth inquiring about renovation. Wooden windows are often perceived to be in much worse condition than they actually are. Specialists will start by removing the sash units from the window frame. Any decaying timber is routed out to expose the sound material beneath. If the damage is too severe, new timber will be spliced in, and cavities filled. Sash window mechanics would then receive an overhaul by replacing the cords, servicing the pulleys or hinges, and balancing the sashes. Work is completed by upgrading the window's performance, eliminating draughts or rattles.” Call 0800 027 7454 or log onto [ventrola.co.uk](http://ventrola.co.uk)





## A BRIEF HISTORY OF WINDOWS

Prior to the late 17th century, homes were fitted with simple side-hung casements. The earliest versions had timber or wrought iron frames, and as large expanses of glazing weren't yet possible, an inner lattice of lead 'comes' (grooved strips) held small diamond or square panes of glass.

Sliding sash windows were introduced to Britain in the late 17th century and became the dominant window design for the next 200 years, although casements were still in use. Early sash windows had a single sliding sash that was wedged open with pegs; these sashes were divided by thick wooden (usually oak) glazing bars into 16 to 24 near-square panes.

During the course of the 18th century, the style evolved to produce the quintessential **Georgian** sash, which had two movable sashes of 'six over six' panes, with highly elegant, slim glazing bars and meeting rails, and panes taller than wide (close to the 'Golden Ratio' of 1:1.618, a Classical formula that produces pleasing proportions). 'Eight over eight' panes were also seen, and sidelights sometimes included. The windows' height diminished up through the storeys in line with the house's ceiling heights.

There were other Georgian designs: on **Palladian** houses the Venetian sash window, which had a semi-circular head and was flanked by narrow, lower flat-headed sashes or sidelights, was popular, as were small round windows. **Regency** houses also featured arched-headed and Gothic arch (curve meets in a point) windows.

In the early **Victorian** period, **Neo-Gothic** style emerged as a reaction to Classical design, taking inspiration from castles and churches, and some houses began to use small-paned iron casement windows in Gothic arches. However, most houses continued to fit sash windows. With fewer glazing bars now possible due to mass-produced glass, four-over-four, two-over-two and even one-over-one panes became popular. The Victorians experimented with decorative glazing bars and stained glass, usually just in the upper sash, with a single pane of glass in the bottom sash.

The Victorians, and later the Edwardians, were also fond of bay windows, square or canted, with glazing on three sides, and its first floor variant, the oriel.

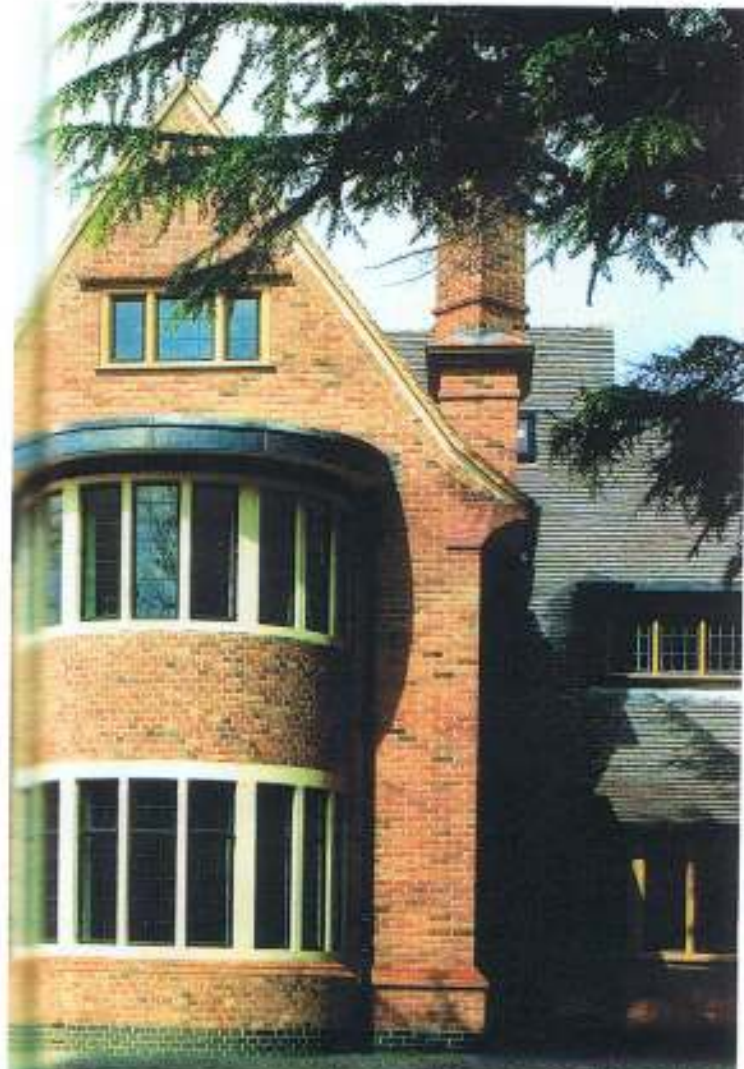
The latter half of the 19th century also saw Queen Anne style and the Arts & Crafts Movement. **Queen Anne** windows were either sashes with small panes in the upper half or leaded casements. **Arts & Crafts** windows were typically cottage style, with multi-paned casements of either timber or metal.

In the **Edwardian** era, glass was cheaper, so windows became larger. Stained glass was sometimes used, especially for upper lights in casement windows. The Edwardians were very fond of the 'Tudorbethan' cottage style, which harked back to 17th century casements.

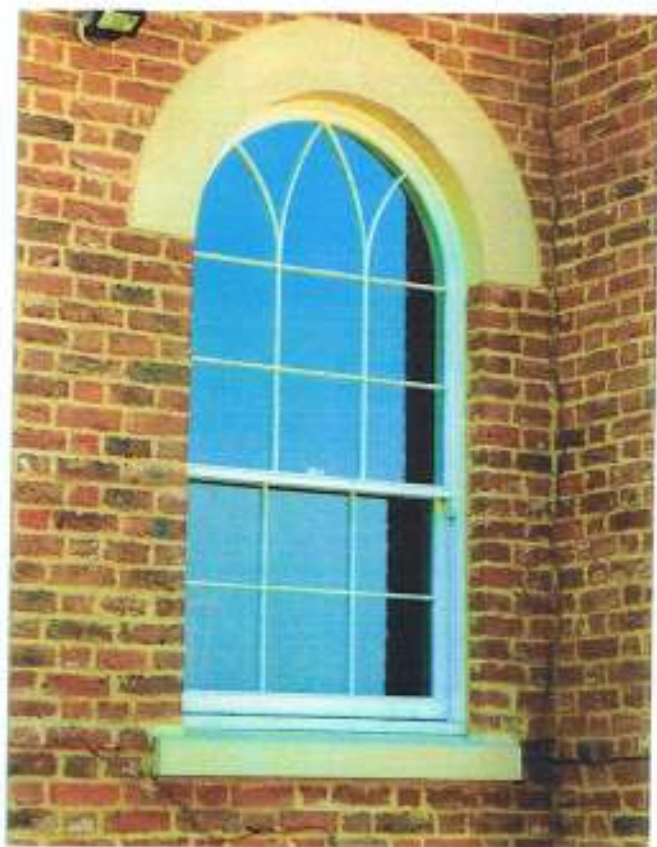
In the interwar period, elegant mass-produced steel casements became widespread with their streamlined, austere appearance ideally suited to the fashionable **Art Deco** style.







Clockwise from above: Arts & Crafts homes used cottage-style casements of timber or metal, such as these by Architectural Bronze Casements (01474 564433); Arch-headed sash by Scotts of Therapton (01832 732366); Georgian sashes were perfectly proportioned in the size and shape of their panes and across the facade; Andersen Woodwright composite sash from Black Millwork (01283 511122); Venetian sashes were popular on Palladian-style homes.



## Which Material?

LOW-MAINTENANCE IS NOW A POSSIBILITY WITH TIMBER

### Timber

All sash windows and many casements were traditionally made of wood. Well cared for, timber is highly durable and long-lasting, but many people are dissuaded from choosing it due to perceived maintenance issues — with occasional repainting or staining required.

However, recent innovations have vastly improved this. "One of the biggest developments over the last 10 years is the development of microporous paint," says Chris Brunsdon, Mumford & Wood's Sales and Marketing Director. "Critically, it has to be applied in the factory before the wood can be exposed to the elements. It's guaranteed not to rot for 30 years, and won't need repainting for eight years. The species of timber doesn't matter as the paint is like a skin. It's available in stains or varnishes, too."

At the very least, softwood should be pressure-treated to prevent fungal attack. Hardwood (sapele is widely used) is naturally rot resistant.

### Composites

While low-maintenance, composite windows, with a timber interior and aluminium exterior, aren't usually suitable for faithful period-style homes, with perhaps a few exceptions. Andersen Windows' composite designs are worth a look.

### Metal

Traditionally, many casements were of wrought iron. But now steel and bronze are usually used to — very successfully — replicate the style, and can achieve highly elegant frames. Steel was also widely used on interwar homes, and is the ultimate in low-maintenance.

### PVCu

It is tempting to opt for PVCu, as it is a less expensive choice, available in many period styles. It can mimic painted timber and even wood grains. However, only the very top-quality PVCu windows can come close to recreating the fine detailing of a traditional design; approach with caution.







**THIS SPACE:** Pilkington Spacia double glazing can reduce a quarter of the thickness of a standard double-glazed unit (01744 692000). **BELOW:** The lead on Clement's steel EB24 range is hand-soldered to the outer pane for an authentic look (01426 643993).

## Glazing Options

LATEST DOUBLE-GLAZING INNOVATIONS AID AUTHENTICITY

The biggest barrier to achieving authentic period windows is double glazing. Now, there may be instances where you can use single glazing on renovations, and in some cases a 'trade off' for single glazing by increasing insulation may be considered. However, the majority of new windows will be double glazed.

Traditionally, timber windows used fine glazing bars to hold all the small panes in place, but according to Mumford & Wood's Chris Brunson, this is not the best way of achieving the style on double glazing: "You would need to increase the width of the glazing bars in order to carry their weight, which would look clumsy. The best solution is to use one large pane with 'glazing bars' bonded to the surface and back-to-back 'spacer bars' incorporated between the glass. This allows for much slimmer widths; our slimmest is 16mm."

A similar method can be used for metal bars and leaded lights. Check out Clement's steel EB24

range (BELOW): lead can be applied to the outside pane with each junction soldered by hand.

The thickness of the double glazing is another element. "The latest innovations in gasses are key," says Brunson. "It began with argon but has since moved onto krypton and the latest is xenon, which can be used to achieve a far more elegant look."

Also, check out Pilkington Spacia, a vacuum glazing (i.e. no gas) that provides similar efficiency to double glazing, but in a unit that is a quarter of the average depth (just 6.5mm). #



### TRICKLE VENTS

Where possible, trickle vents should be avoided as they can spoil the window design. Whole-house mechanical ventilation or, if you must, air bricks with cast iron grilles are better options. If you do elect to use them, follow the advice of Ian Hodgkin from Scotts of Thrapston: "Avoid large plastic vent covers on the inside; aluminium vents are generally more discreet."

### FINER DETAILS

Wooden glazing bars are moulded internally, forming a decorative element. Investigate an appropriate moulding for your home's period: there were many variations, but early Georgian windows used thick square 'ovoids'. When larger panes of glass became possible, the bars became thinner, with more refined mouldings including 'astragal', 'sash ovoid' and 'lamb's tongue'. A 'sash horn', which is a moulded extension of the stile (vertical side of the glazed sash), also appeared during the 19th century, as the larger glass panes needed reinforcement. Avoid fake bolt-on horns.

### WINDOW FURNITURE

Early casement ironmongery was wrought iron, and many new versions are available, and also of steel and bronze in both simple and ornate designs. Sash furniture was often brass. There are several other ironmongery options, including pewter and nickel. See [ironmongerydirect.co.uk](http://ironmongerydirect.co.uk).

### TOP CASEMENTS



**TOP CASEMENT:** from Architectural Bronze Casements (01476 564433)



**TOP CASEMENT WINDOW:** by Scotts of Thrapston (0532 732566)



**TOP CASEMENT:** from Architectural Bronze Casements (as before)



**TOP CASEMENT:** improved window from Scotts of Thrapston (0532 732566)