

INFORM

INFORMATION FOR TRADITIONAL BUILDING OWNERS

Timber Window Shutters



Introduction

Traditional wooden window shutters have formed part of the fabric of many Scottish houses since the late 17th Century. In more recent times they have fallen out of fashion with many being either being fixed in place or removed altogether. This Inform Guide will highlight the benefits they bring and provide information on:

- The history of their use in Scotland.
- Their methods of construction and function.
- Common problems.
- Repair and maintenance issues.
- Reinstatement of missing shutters.
- Energy efficiency and the benefits of retention.

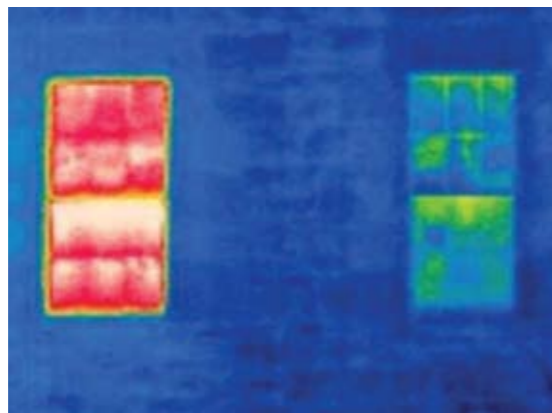


A mid 19th century shutter with original stain varnish on rear faces

The history of shutters in Scotland

The use of timber as a cover for window openings to keep out wind and rain has been in use throughout Scotland for centuries. Windows only became glazed in the 16th Century when glass became more affordable. Even then, a half-glazed shutter board style of window was common. Technological advances in glass production in the late 17th Century led to the introduction of the Sash and Case windows. The detailed design of shutters subtly evolved to follow ongoing architectural fashions and developed to deal with new window configurations such as bays.

The shutters of the principle rooms would often be highly decorative and panelled to match the adjacent mouldings or window configuration. They commonly follow a splayed window reveal alignment.



Shutters can provide significant energy efficiency benefits by reducing heat loss, the window on the left has shutters open, on the right shutter closed.

The benefits of shutters

Shutters were designed to give significant benefits to a property including:

- To eliminate or allow light as required.
- Keep out draughts.
- Deter intruders.
- Provide better heat retention.
- To prevent direct sunlight fading furniture and fabrics within room.
- Are an original feature which can add to the appeal of a property

The security benefits of shutters are self evident, but shutters can also reduce heat loss through a window by up to 50%. The image below gives a graphic illustration of the reduction in heat loss provided by shutters, the window on the left shows shutters open and that on the right with them closed demonstrating a significant reduction in heat loss. In addition to this shutters will also help reduce audibility of external noise when they are closed.

Construction of the shutter system

Shutters were normally made of top quality imported softwoods though some are of oak and mahogany. Shutter types and styles vary greatly throughout Scotland depending on tastes, fashion, the size of the window and wealth,

The standard format comprises outer panelled leaves, hinged to the window jambs. To one or both these, secondary leaves are hinged, which are usually of simple design and concealed within the housing when the shutters are open. Leaf edges are rebated so they interlock when closed to exclude light.

The shutter leaves consist of vertical stiles which extend its height and horizontal rails at top and bottom. Intermediate rails strengthen the construction and compliment the proportions of the window design. The shutters would be constructed using traditional mortice and tenon joints, the spaces between stiles and rails were filled with thinner panels held in place by decorative mouldings around their edge.

Sometimes shutters were divided into two or occasionally three separate hinged sections horizontally, this allowed the householder to close the bottom section whilst leaving the top section open, letting light into the room whilst maintaining a level of privacy.

When open the shutter leaves were concealed in boxes called housing, that made them a very unobtrusive fixture of the room. Today, many householders are unaware that their property is fitted with shutters due to this design feature.

Ironmongery

Window shutters were constructed and installed using ironmongery manufactured by the many blacksmiths around at the time, although they offered privacy and higher levels of interior warmth their main purpose was that of security enhancement.

Fastening

There are two main ways of securing shutters in the closed position. Where security levels were high the use of a flat iron stay bar was implemented, the bar would slot into brackets screwed to the rear side of the shutters and span the width of the window opening. Another simpler method of secure closure was the use of



a latch attached to the shutters at meeting stiles, when they were closed it would be activated to hold the shutters in position.

Hinges

Shutters have been fitted using a variety of hinge types. Early Scottish shutters were installed using hinges named after their shape such as H-hinges, L-hinges, T-hinges and Butterfly hinges. Since the late 19th century the most common type used was the butt-hinge. Dependant on the height and the weight of shutter either two or three butt-hinges would be fitted to each individual shutter leaf normally held in place with screws.

Hinged connection between secondary and outer shutter leaves and outer shutter leaf and window jamb



Iron stay bar for securing shutters

Accessories

The opening and closing of timber shutters was facilitated by the use of simple knobs or handles fitted to the shutters outer leaves. These knobs and handles were initially made of wood, however cast metal and brass became popular eventually becoming the common fittings for shutter operation in Scotland. Ceramic materials were also often commonly used.

Replacement Of Faulty Ironmongery

Due to either wear and tear or loss it may be necessary to renew shutter ironmongery. Hinges, handles and knobs can be obtained easily and relatively cheaply however attention should be paid in trying to match like for like where possible. Missing shutter bars and brackets can be manufactured by a suitably skilled local metalworker.

Common problems associated with timber shutters

Original shutters normally require little maintenance, however, some of the possible problems with shutters are highlighted below;-

- Shutters that survive out of use have often become inoperable due to years of over painting, sealing the shutters into their boxes. This may be simply remedied by the careful use of a craft knife, carefully cutting through and scraping back the paint at shutter edges and gently prising open. If this is not successful it may be that a previous owner has nailed or screwed the shutters to their housing,



Hinged connection between secondary and outer shutter leaves and outer shutter leaf and window jamb



Shutters with a new stay bar in place



A well maintained shutter folding into recess

close inspection should reveal if this is the case. Once again great care should be taken by gently unscrewing or slowly withdrawing any existing nails making sure not to damage surrounding timberwork.

- If problems are encountered operating shutters such as difficulty in opening or misalignment at meeting point, the fault may lie with the hinges. They may have become damaged and require overhauling or replacement. To remedy this the shutters must be unscrewed from their housing to access affected hinges. This is best left to a competent joiner to ensure shutters are reinstalled correctly. Should shutters still not function properly after hinge repair it may be that slight movement over the years has led to shutters becoming tight

and rubbing, this can easily be rectified by slight realignment of hinges. If this is not successful it may be necessary to sand or lightly plane the edges of the shutters.

- Occasionally shutters become affected by dry rot due to water ingress causing damage to the timber. To alleviate this the source of moisture must be found and dealt with before the repair of the affected area is undertaken. A competent joiner should be able to perform this task.
- Shutter panels can be susceptible to cracking or splitting which can normally be accredited to changes in moisture levels within the thin timber. Small cracks should be filled with a wood filler (readily available from most DIY stores). Wider

cracks can be filled with slivers of timber and then sanded smooth before re-decoration.

Shutter re-instatement.

Should it be found that the original shutters no longer exist the option of having replacement shutters custom made can be considered. A skilled joiner should be able to manufacture/ install new shutters designed to compliment the individual style and period of the house. The correct design should be informed by surviving original joinery in the property and contemporary comparable houses nearby.

Shutter maintenance

As mentioned previously, fully operational window shutters require little maintenance, the hinges can be kept in good working order by the application of oil. As with all internal timber the need for regular re-painting is necessary, historically shutters would have been painted using paints that contained lead so caution must be taken if previous layers of paint have to be removed. If removing paint from shutters it is important to proceed with caution as shutter panels are very thin and can be easily damaged by excessive scraping. Where retained shutters have been varnished the same criteria applies, careful sanding prior to a new application of varnish will enhance the natural grains of the wood and provide an attractive finish.

Conclusion

Historic timber window shutters are a valuable asset to any property and their retention must be encouraged, the benefits to the householder greatly outweigh their maintenance issues. Shutters properly looked after provide an attractive feature to any window and greatly enhance the appeal and character of our traditional Scottish homes.



Further reading

- Jackson A, Hay D, Period House ISBN: 0007192754
- Glasgow West Conservation Trust, Historic Woodwork

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