

Striking staircase design

If you want to let light flow throughout your home and create an attractive feature, then an open flight may be perfect for your modern layout, says **Anna-Marie DeSouza**

It's an essential and functional item that will probably be one of the first things you see when entering your house – so don't forget to account for your staircase at the very start of your project. It will have a huge impact on the design of not only your ground floor, but the adjoining levels, too. So whether you are self building or renovating, this functional part of your project can provide a striking feature at the heart of your home. Done well, your new flight will give your dwelling a beautiful architectural element, but done poorly, you'll be left with an expensive fixture that jars with the overall style of your property.

A key consideration in many modern abodes is the flow of light, and there's no reason why your choice of staircase shouldn't complement this, whether you're opting for an open-plan layout or not. An open look will ensure natural brightness can permeate through it, and thankfully, it's a design feature that will suit a multitude of interior styles. If you're renovating, don't worry that the period of your home has to dictate what you choose to install. A contemporary

flight can complement an older house, and vice versa, if it's blended aesthetically with other key features.

Early considerations

Before you start planning your staircase, contemplate your ground floor arrangement as a whole and how the flight will impact upon it. For example, open-plan interiors mean you'll potentially be able to view the stairs from other parts of the house, so you have to think about how it will look from a variety of angles. In addition, consider traffic and how people flow around the house – where will the main approach to the staircase be?

It's a good idea to talk to a specialist as early as possible so that you can ensure your layout incorporates the fixture in the best possible way. "Choosing a specialist designer at the very beginning of a project is the most satisfactory solution for all concerned," says Richard McLane of Bisca. "Spatial design and awareness is crucial and so often overlooked as it's a human ability, not something that



Above: Sleek design and high-quality materials give make this contemporary flight an exciting feature in the hallway of this modern home. The floating style mixes oak treads and strings with toughened glass sub risers and cut string structural glass balustrades. The steps have all been treated with an anti-slip matt lacquer



A slimline metal balustrade gives this flight by Ian Knapp Stonemason an open feel. The treads were hand-carved in an off white French limestone, called Roche Marron

can be generated by a 3D modeling package. Taking a walk around a property, listening to the interior designer/architect or client and then translating this intelligence into a staircase design that takes account of light, aesthetics and traffic is always going to be the optimum way of making the most of the space."

You also need to decide where you will source your staircase from. Will you work with your architect to create something bespoke, commission a flight from a joiner or specialist firm, or select an off-the-shelf design? If you are on a tight budget, then the latter route may best suit your

CLOSER LOOK: MODERN TWIST



Hampshire-based architect Witcher Crawford created this bespoke glass, steel and timber fitting for a client's open-plan, contemporary home. The stunning staircase features a hollow ribbon of high-grade stainless steel, which gracefully spirals upwards, a feat of engineering that took many hours of careful planning. Richard Witcher, partner at Witcher Crawford comments, "The flowing elegance of this staircase hides a huge technical challenge. We had to plan this minutely to prevent people running up and down stairs causing resonances to ring through the steel and pull the pins out."

The architect specified thick glass panels to fill the spaces beneath the handrail at the top and bottom of the stairs, as well as forming the landing balustrade. Witcher Crawford worked with the specialist structural engineers employed by the fabricators, Littlehampton Welding, to ensure the design was both beautiful and robust.

finances – there are many good products available from around £2,000. The custom-made route will cost extra, from £5,000 for more standard examples to double that amount (and significantly more) for elaborate designs made from unusual and high-quality materials.

Opening up your flight

If you want to let light flood through your stairs, then there are a number of ways to achieve this. Perhaps the most

dramatic is a cantilevered design, which creates a floating feature. While the stairs appear to defy gravity, the steps are supported through concealed fixings within the treads and behind a supporting wall. It's essential that the connecting wall is strong and stable enough to take the load, so exactly how the structure is fixed will be governed by this, and may require a hidden metal sheet support mechanism or a similar alternative.

Cantilevered staircases can feature open or closed risers, with the former arrangement allowing maximum light to flow through. This type of

configuration works equally well on fixed staircases where the treads are attached to a steel spine or to side stringers. Leaving the vertical risers out means there's an open space between each tread, which are typically fixed to steel plates on a centrally-located support.

In terms of materials, timber is a popular choice, especially for the treads. It has a characterful appeal, is durable and will blend well with a vast range of other interior finishes. It is also a good option in terms of ease of attachment to the balustrade. Glass treads offer even more possibilities for letting light permeate through the

flight. Stone will give a striking and robust finish, but bear in mind that this will be more costly, not least because it will add extra weight to the staircase, which means the structure has to be stronger. Corian is emerging as an on-trend material, too, and can be used for both the tread and balustrading, giving a cool and sleek finish.

If you can't integrate a floating and open design, then there are ways to get the look and nod to these styles. Using glass balustrades will still allow a good amount of light to permeate through, as will styles with slim-line steel spindles. Some staircase companies offer in-built LED lights set on the underside of the tread overlap or on the riser – giving additional illumination to the flight. Making sure your stairs are well lit from above will also diminish the fenced-in feeling of enclosed styles.

Regulations

Whatever design you opt for, you'll need to bear the Building Regulations in mind (your flight has to be practical as well as attractive). "In general terms, the regs are there to ensure your stairs are safe and give guidelines on how narrow or steep they can be, the headroom requirements and numerous other factors," says Kathryn Mansi from Model Projects. "Download the guidelines from the Planning Portal (www.planningportal.co.uk) and if you're unsure of anything, talk to your design professional or your local building control officer. Discuss your ideas to guarantee your flight doesn't fall foul of the requirements. Don't commission something that may not pass muster, since it might lead to you having to rework the feature."

The Regulations stipulate a sphere of 100mm diameter must not be able to pass through any gap in the staircase, including at uprights on a balustrade as well as gaps between treads. An additional requirement is the overhang of the treads has to be 16mm or more, which again makes it harder for objects (and people) to fall through.



Above: This home by Welsh Oak Frame is perfectly complemented by the modern timber and cast iron staircase. The open treads are supported by a robust central spine that matches the balustrade

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