
MARK NICHOLSON

Converting a cellar

Refurbishing an existing below-ground area is a great way to enlarge a home that's squeezed for space. Emily Brooks explains how these underground storeys can be made habitable and attractive

If you cannot extend your home upwards or outwards, then converting a cellar is a viable option for adding more space. These transformations work especially well if living area (as opposed to bedrooms) is needed, because they are already physically close to ground-floor reception rooms. Playrooms, games zones, home offices, TV dens and utility spaces are all great uses, and by putting these functions underground, they can also transform what's happening upstairs – reclaiming that toy-strewn dining room could open up the opportunity to create a spacious kitchen-diner, for example.

In a typical Victorian or Edwardian property, the cellar would have been used to store coal, food or other goods. It wouldn't necessarily run under the whole house and was never intended to be a habitable space, so turning it into one can be a challenge. "Having an existing cellar tends to spur people on to start a project, because a lot of the dig-out work is already done," says James Peake, director of building company Peake Projects. However, if there is any additional excavation to be done, particularly downwards below the level of existing footings, costs ramp up because of the need for structural work and extra waterproofing. "You will save something on the labour costs if there is already a cellar, but it will still be a big engineering process. It's very disruptive," says James.

Above: Designed by Robert Dye Architects and built by Peake Projects, this existing cellar was made habitable by excavating down to create more headroom, as well matching the new floor level to a terraced area outside

Assessing suitability

Create a checklist to see how suitable your cellar might be for conversion. How big is the floorspace, and is it divided up into a smaller rooms that will need opening up? How dry is it? How tall are the ceilings? Is there good access or will that need to be created? Are there existing light wells or windows; and are they sufficiently large already or will they have to be made bigger?

Low ceiling heights, damp and a lack of natural light are the three big issues, all of which can be tackled with specialist help. Companies dedicated to subterranean work have sprung up in cities, where adding extra space underground tends to make the most financial sense, and they can even create whole new retrofitted basements. Not only can they provide the specialist engineering expertise needed for the project, but they offer everything in one package, from design to fit out.

Planning, regs & party walls

If you want to make only light internal changes involving waterproofing (ie no excavation, underpinning or additional light wells that change a property's outward appearance) then planning permission may not be required. But the government's Planning Portal advises checking with your council first. Even if you think work falls under permitted development, it's advisable to apply for a certificate of lawfulness to give peace of mind the project is legal.

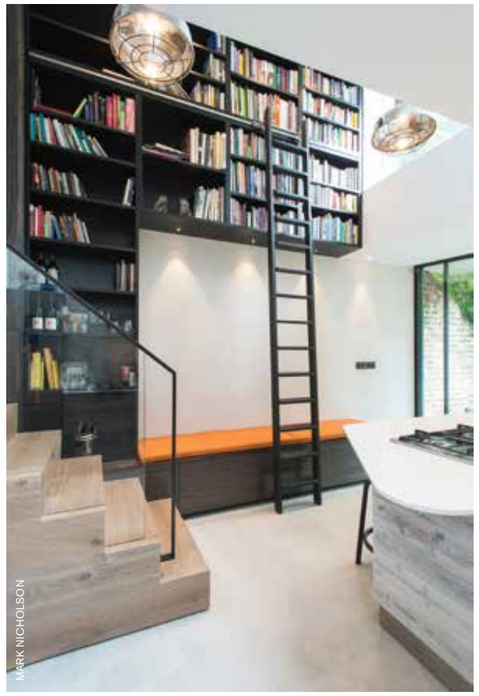
Building Regulations approval will be needed for the works, unless the space is being used for the same purpose before and after (such as storage). Key areas that need to comply include ventilation, means of escape, damp-proofing and electrics. A surveyor can draw up plans for approval, but if you are using a dedicated basement specialist this will be a part of your package.

If you have neighbours in an adjoining property and you are excavating, underpinning or extending an existing cellar, the Party Wall Act comes in to play. While your neighbours can't stop you from making lawful changes to your property, they can have a say in how and when your works are carried out. Robert Wilson of Granit Architects says that if you are not carrying out works to the party wall – ie, you are just waterproofing and fitting out what already exists – you do not need to inform them, but it's a good idea to do so regardless. "Act how you would want your neighbour to act if it was them carrying out the work," he says. At the least, Robert advises arranging a Schedule of Condition; a formal record of the condition of the next-door property. "Otherwise if you're doing the work and suddenly you've got an irate neighbour on your doorstep saying you've made some cracks in his wall, you've got no comeback to say that they're nothing to do with your construction project," he says.

Waterproofing options

The gold standard of waterproofing is a studded plastic cavity drainage membrane (CDM) lining the walls and a pump system. Rather than attempting to stop water from entering the fabric, moisture is allowed to trickle down the CDM into internal drainage channels before being pumped away. These systems require regular servicing, and the pump should be alarmed and have battery backup in case of failure.

A barrier system is the alternative: unlike a CDM, which manages water ingress, this option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Left: Double-height spaces are great for bringing light down from the floors above. This conversion project is by Robert Dye Architects, built by Peake Projects

CONVERT & EXTEND

Cellars are often not large or deep enough to make them habitable without extra work. So some conversions that would, on the face of it, fall under permitted development come unstuck because of ceiling heights. The need to insulate the floor (to meet Building Regulations) means that headroom is lessened further, and so it becomes necessary to dig down under the existing footings. It is quite common for existing cellars to instead be used as a starting point for much larger works – excavating down and/or out towards the rear of the property, and even under the garden. This is structural work that requires planning consent, and the process is akin to retrofitting a new basement from scratch – underpinning party walls, removing soil, building new structural supports and foundations, and waterproofing – with all the disruption and cost this implies.


ANDREW BEASLEY

Above left: Glass balustrades and a slim steel rail introduce more daylight to this basement staircase, which also features built-in storage. It was designed and made by Bisca. Left: In order to give the impression of more daylight coming into this TV den, Granit Architects added artificial lighting to the basement light wells

holds it back. Old plaster is removed and the walls and floors made sound, before applying a tanking system – typically a waterproof cementitious slurry. The floor will need to be sealed, too. A waterproofing specialist will be able to advise on which systems are most suitable – the Basement Waterproofing Association is a good place to find one.

Design & layout tips

External light wells, topped by a grille or walk-on glazing (usually opaque to preserve privacy) can channel daylight down to windows. A sunken courtyard at the rear of a property, with glass doors and steps up to the garden, is an attractive way to bring in light, and link inside and out. But do bear in mind you'll be sacrificing the chance to have a wide, clear and step-free access at ground level.

Creating pockets of double-height space, so that brightness can be thrown down from above, is a great way of introducing daylight as well as drama, and walk-over internal glazing works well, too. "A staircase can provide a really good source of borrowed light, especially if there's a rooflight over it," says Georgina Turvey of PEEK Architecture. Glass balustrades and open treads will help as well, although you'll need to ensure the design adheres to fire safety regulations (see box, below left).

"We usually match the staircase itself to what's going up above, even if the design of the basement is a bit more funky and contemporary," says Robert. "They key thing is that it harmonizes at ground-floor level, so the handrail for the basement's stair coordinates with the flight going up to the first floor." This can help create a sense of flow between the new storey and the rest of the house.

Layouts are usually dictated by where the most daylight can be found. "Always put ancillary spaces – loos, utilities, storage, plant rooms – in the darkest areas, concentrating living spaces around the light wells," says Georgina. Open-plan arrangements can help to encourage light to flow through the whole zone, but if that doesn't suit your needs, fitting glazed internal doors or fold-back partitions that temporarily close-off space might be better.

When it comes to decor, pale colours will bounce light around, but if your space doesn't particularly need daylight (as with a media room, for example) consider embracing that with dark walls and cocooning carpets. Access can often be an issue in converted cellars, so always check whether furniture will fit. Alternatively, buy flat-pack and modular pieces that can be assembled within the room.

Below: In this project by Granit Architects, French doors lead out to a light well at the front of the house. They give the illusion that the room might be on the ground floor, but also provide a means of escape


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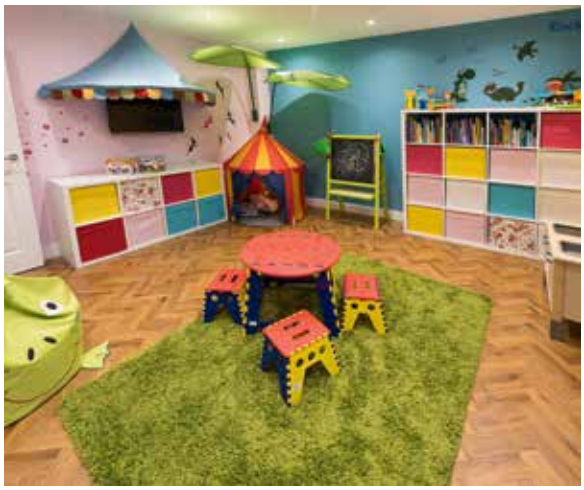
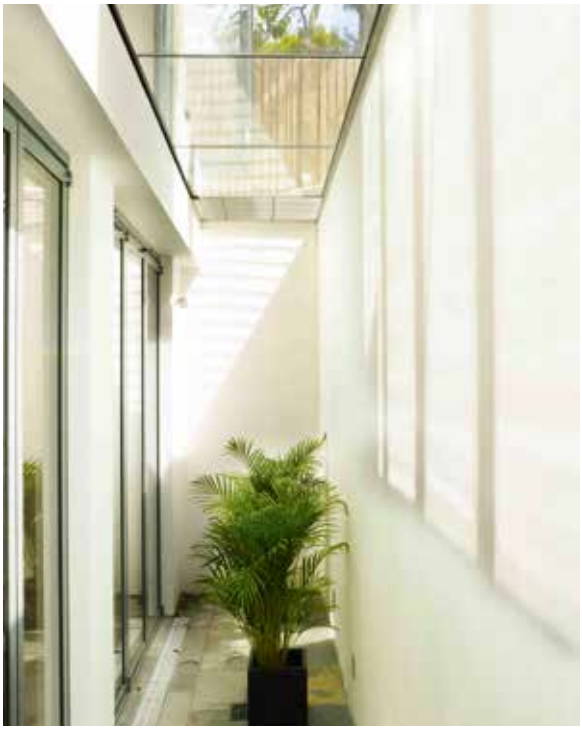
FIRE SAFETY

To comply with Building Regulations, there must be a means of emergency escape from a basement. This could be the main staircase (assuming it leads directly to a final exit, such as the front door) but may need to be a protected stairwell, which places some restrictions on design since it needs to be enclosed. Alternatives include an external door or window of a specified minimum size and height, with a ladder leading up and out. If there are doors leading to the garden, this also qualifies as an escape route, if the outside space is as long as the house is tall, or the garden leads to a way out (as with a side alleyway). Some sprinkler and mist systems have been accepted by Building Regulations to be used in place of an approved exit.

Right: Moving playrooms, utility rooms and TV dens underground frequently has a profound effect on the ground floor, freeing up space; this project is by Basement Masters. Far right: A glazed light well cover and tall glass doors bring maximum daylight into this new zone by Basement Works





CONTACTS **Basement Masters** 020 8443 7099 www.basementmasters.co.uk **The Basement Waterproofing Association** 020 8185 0263 www.basementwaterproofingassociation.org **Basement Works** 020 8877 0555 www.basementworks.co.uk **Bisca** 01439 771702 www.bisca.co.uk **Delta Membranes** 01992 523 523 www.deltamembranes.com **Granit Architects** 020 7924 4555 www.granit.co.uk **Peake Projects** 020 7207 4165 www.peakeprojects.co.uk **PEEK Architecture** 020 7734 3094 www.peekarchitecture.co.uk **Robert Dye Architects** 020 7267 9388 www.robertdye.com