

Taking basements to a new level

BY NICOLE GOLDMAN



THE WORLD BENEATH YOUR FEET
Smart strategies, from layered lighting to warm, comfortable furnishings, can make a lower level as pleasant as those above.



Effective lighting, space planning, and lots of storage are even more important below grade

Extending your living space downstairs—to the basement—doesn't have to mean lowering your expectations. Proper lighting, well-designed architectural details, vibrant colors, and comforts typically associated with above-grade rooms can help transform that forbidding space below into a place where you and your family want to spend time. True, there are many challenges inherent in remodeling lower levels—low ceilings, dampness, and poor lighting, coupled with the need to preserve storage area and utility access. But all of these can be overcome with good design, appropriate materials, and a bit of ingenuity.

Plan for now and for the future

Most primary living areas—kitchen, living room, dining room—have a predetermined function. Reclaiming a basement is like discovering real estate you didn't know you owned. It's easy for your plans to overwhelm both you and the space.

Start by assessing your needs. An extra bedroom? A home entertainment area? An exercise space? An office?

Then ask yourself what that use will require. Insulation to muffle the sound of teenagers and their electronic games? A refrigerator or sink for serving food and drinks?

Establishing different zones within a large open room is one approach that makes the most of light and air movement. But structural considerations may dictate your best layout. For example, in remodeling the basement of Jessica and David Aronoff's Newton, Mass., home,



OPEN AND INVITING

A trip downstairs is more inviting when the basement stairway is open to the home's main level.

DAYLIGHT ILLUSION

The Croteaus' false window (below) doesn't add much light but suggests an aboveground connection. A window well (bottom) can provide fresh air as well as illumination.



LETTING LIGHT FLOW

An open stairway, glass block walls, and a French door to an office area let light disperse naturally throughout the Aronoffs' basement.

Not all basements are completely shut off from
natural light, so when planning your layout,
you should capitalize on what's available.



LDa Architects of Cambridge worked with the existing structure, incorporating support columns into a glass-block wall (photos, p. 64 and left).

It's a good idea also to consider what function the space may fill in coming years. Today's playroom may later serve as teen hangout, and still later as an apartment for an elderly relative or returning college grad. If you foresee the need for a bathroom, bringing in plumbing at the time of the initial renovation will prove more cost-effective than deciding down the road. Keep in mind also that some uses, such as bedrooms, must meet specific code requirements. Take time to develop a long-range plan and discuss it with your contractor and, if need be, building inspector, to be sure any changes to the space won't limit adaptations later on.

Lighten it up

Perhaps the single most important design element in a lower level is the lighting plan. Choosing your fixtures and making a scheme for overhead, task, and ambient light lessens dependence on exterior sources, which are often unavailable.

Light layering, a design method that relies on blending a number of light sources, is critical to a comfortable, well-lit lower level. This may include a mix of table lamps, pendants, wall sconces, and recessed down lights. Recessed lights,

desirable for already-low ceilings, should be placed no more than 6 to 8 feet apart to illuminate the greatest area. Task areas, such as a bar or work center, benefit from a pendant or spot's more concentrated light. For cozier nooks, a table lamp with a dark shade enhances the surrounding space. Sconces that splash light on the ceiling help make low ceilings appear less oppressive.

In their windowless Massachusetts basement, Bonnie and John Croteau installed a false window with strip lighting behind to communicate a sense of being above-ground (top left photo, facing page). Though it doesn't contribute much brightness, its softly glowing presence suggests a connection to the outdoors.



A PLACE TO GROW A long narrow space resulting from the Croteaus' basement remodel was the perfect place for a built-in arts-and-crafts station for their daughter.

BUILT-IN CUPBOARDS can reclaim some of the storage space often lost when a basement is remodeled.



Plan built-ins that use the nooks and crannies often created when basements are reshaped.



WORK WITH LEFTOVERS Consider a pantry, clothing storage, or a wine cellar when a basement remodel leaves you with one or more small, out-of-the-way rooms.

UNDERGROUND MATTERS

Drive out dampness

Poor drainage coupled with the constant push of groundwater against foundations and slab floors will cause some basements to flood and nearly all to be damp. Severe flooding should be stopped before undertaking any basement remodel; start by consulting an independent home inspector who specializes in these problems. The Aronoffs had their basement professionally waterproofed before the renovation and installed a sump pump in a cabinet. The wood flooring they used is engineered for water resistance (see Resources, p. 94).

But even relatively dry basements can have problems. Temperature and ventilation can go a long way in alleviating dampness, so take a look at your existing HVAC system to see if an upgrade is needed. Both heat and air conditioning can help keep humidity under control. Also, the addition of an integrated dehumidifier, which improves air circulation and dispels moisture, may be worth the cost.

The installation of an air-exchange system also helps move moist, stagnant air that promotes mold and mildew. Vented outside, these units bring in fresh air using a fan and filter and are relatively simple to install.

Test for toxins

This is a good time to have your lower level tested for radon, an odorless, colorless gas and known carcinogen

that is present in many basements. If excessive radon is detected, a mitigation system should be in place before any finishing work begins. Carbon monoxide, a toxic gas produced by combustion, may also be an issue. Inspecting the venting on your furnace and installing a CO detector will help alleviate that concern.

Keep to code

Making sure you meet building code requirements early on will save headaches later. Don't be tempted to skirt them just because a basement is out of sight. Two common requirements that affect basement remodels include egress—the Uniform Building Code (UBC) requires two approved routes of escape—and ceiling height, which in most localities must be at least 7 feet.

Bathrooms are subject to their own codes, including the provision that they be vented to the outside. Your plumber or building inspector can advise you of requirements in your area.

Heating systems located in the basement that draw in air for natural-draft combustion can be starved for that air if sealed off behind walls. This reduces efficiency and increases the chance of exhaust gases venting into the living space. Again, consult local inspectors for furnace clearance and air-space requirements.

And finally, the UBC requires at least one smoke detector on the lower level.



LAYERED LIGHT A variety of light sources, such as the recessed, pendant, and task lighting seen here, brighten what otherwise would be a dark, cloistered space.

Encourage natural light

Not all basements are completely shut off from natural light, so when planning your layout, you should capitalize on what's available. When designing your space, position openings and hallways so that window light extends as far into the interior as possible. The use of half-walls, interior windows, and glass-block inserts (right photo, p. 66) in interior walls also allows light to spread throughout.

You can increase the amount of natural light in a subterranean space by adding a window well or enlarging an existing one (bottom left photo, p. 66). In addition to providing light and air, window wells, if large enough and positioned adequately, allow escape in case of emergency. Terraced steps in the well maximize light.



SOFFITS WITH STYLE
While often seen as obstructions, soffits and other structural ceiling elements can be dressed up with curves and drywall to make unusual design details.



Don't duck ceiling issues

Basement ceilings are generally low to begin with, and making necessary accommodations for the ducts, pipes, and electrical work that usually crisscross them can result in a mess of soffits and bump-outs. If possible, consider rerouting large obstructions to the edges of rooms, preserving ceiling height in the center. If that's not possible, you may be able to minimize ceiling disruptions by incorporating them into the room's design. For example, you can build a bar or counter to follow the line of the pipe soffit above. Another idea is to ground the soffit with columns that make it look as if the structural incongruity were planned. This also draws the eye downward, mitigating the oppressive feel of a low ceiling. Such architectural foolery can turn a foreboding-looking ceiling into strong design element.

Build in a bathroom

Including a bathroom in a basement remodel makes good economic and quality-of-life sense. If the space isn't already plumbed, call a plumber in early to determine what equipment will be needed and where to bring the service in. Bathrooms located lower than service lines for the rest of the house generally require installation of an ejector pump in the floor, which moves the waste up and

FOR WORK AND PLAY
Built-in counters and storage drawers provide a great place for children to exercise their creativity while keeping mess and clutter at bay.

out. A grinder pump, which breaks down waste so that smaller-diameter piping can be used, is often called for as well. Locating the new bathroom under existing ones can minimize cost and snaking pipes.

Preserve some storage space


Gaining living area in a basement often means sacrificing storage space, but you can minimize the loss with built-ins that use the nooks and crannies often created when basements, with all their obstructions, are reshaped. Don't just wait for these opportunities to arise, though; consider incorporating specific storage uses into your overall plan. An under-the-stairs cabinet or set of drawers is one way to capture "dead" space. Hallways can often accommodate narrow shelving. A cedar closet for out-of-season wear, a pantry, or an atmospherically controlled wine cellar can broaden the use of your space (photos, p. 67).

Make the connection

Basement stairs are often closed off from the rest of the house, reinforcing the notion of the space below as a distant and unwelcome place. Opening up the staircase is an opportunity to enliven both spaces.

Kim Adams of Needham, Mass., feels as if she gained an entire floor by removing the walls and doorway that enclosed the basement stairs in her two-story townhouse. An engineer's review was required to plan the structural changes needed to transform the stairway, a process that included removal of a supporting post, reinforcement of a load-bearing joist overhead, and widening of the entire stairwell. But the result was worth it. Not only did the removal of the wall better connect the two levels, but the now-expansive first floor gives Kim's home a less vertical feel.

In the case of the Aronoffs' basement, the existing stairs were removed, and a new open stairway was built within the same opening (photo, p. 65).

Repeating architectural details used in the upper floors also adds to the continuity. Matching moldings and trim, door styles and hardware, and even reusing a similar color palette will help link the levels and make moving from above ground to below ground more natural. Strive to make the colors, textures, and materials you use in your lower level every bit as rich and welcoming as those upstairs. Bring these design details downstairs, and your family is sure to follow. 

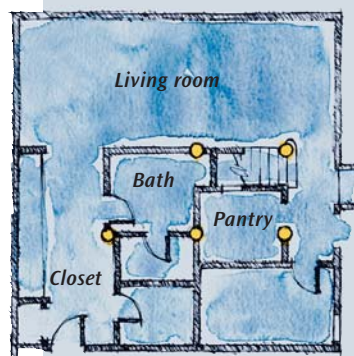
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See Resources on page 94.

SOME TIPS FOR A BETTER BASEMENT

Build where you can

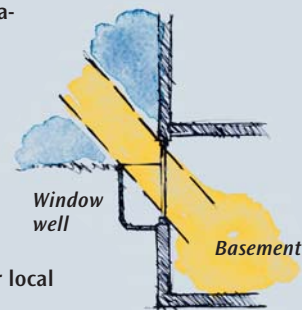
Bonnie Croteau wanted to incorporate eight functions—from family room to pantry to guest bedroom—into the basement of her Bedford, Mass., colonial. But she didn't want the basement's support columns cluttering the space. Instead of removing them, her contractor used their layout to determine the shape of the rooms, incorporating the columns into the walls.



Yellow dots (●) indicate existing columns.

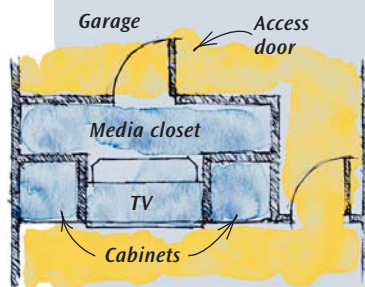
Install a window well

Installing a window well (photo, p. 66) or enlarging an existing one can help bring light into a below-grade basement. Because this usually involves cutting into your home's foundation, the construction of a window well is best left to professionals. In addition to bringing in light, a basement window may satisfy building code exit requirements, but only if it's the right size and in the right place (check with your local inspector for specifications).



Bump out a wall for a media closet

Tapping into dead space can be an effective strategy. Rather than sacrifice floor space in their basement home theater, another family bumped the back of their big-screen TV—as well as its speakers and electronics—through the wall and into the back of an adjacent garage. There, a water-tight closet houses the wires and cables, leaving the screen flush with the wall.



Illustrations: Christine Erickson