How to Photograph Architecture (Exterior)

by Philip Greenspun

This is an example-based tutorial on photographing buildings.

Your pictures need not be pretty

Architectural photography at its best will convey the experience of being in and around a built environment. In the case of the Dachau Concentration Camp, this won't result in comforting attractive images.

Below is a parking garage in Kyoto. The colors and industrial appearance of the structure are remarkable in the middle of a city known for its ancient temples and gardens. The purpose of the image is to capture the feeling of walking by the structure, not to delight or decorate.

A supermarket exterior is a subject that will probably never make a wall-worthy image by itself. However, the image below (from the Hawaii flowers collection) captures the spirit of being in the parking lot at night:

Give old buildings some space

In general, the older the structure, the more environmental context is required.

Using your hands or your mind, crop the preceding images to include just the structures and see if they would still work. Also, compare them to a few modern buildings where hardly any context is required:


(The Big Boy pictures are also a good example of coming back repeatedly to a building in order to capture it in different lights and weather.)

Farms are a good example of where the structures don't make any sense removed from their context:



Even a bit of space helps

If you're not capturing an entire village or farm, it still makes sense to think about the space around your subject. Even a little bit of context helps anchor the image. For example, the image at right, from the sunset district of San Francisco, shows us a house clearly enough to serve as a real estate advertisement. The fragment of the house to the left, however, isn't wasted space. It tells us how tightly packed the neighborhood is.


In the image below, the sidewalk, the fragment of street, the pedestrian, and the little open market to the left of the shop help establish the Guatemalan context:

Step back and use a telephoto lens

Back up from an work of architecture and use a telephoto lens to compress the perspective. This often brings out an interesting pattern.





The images below, from Provincetown, Cape Cod, show the increased abstraction of a telephoto perspective. The picture on the right was taken with a much longer lens

than the one on the left.

Include the Fence

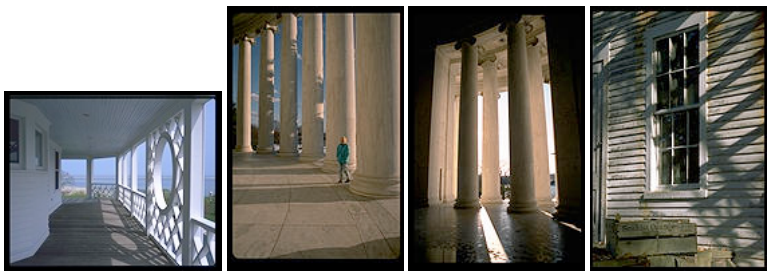
A fence can be an important image element. In the left-hand photo below (from Gotland, Sweden), the fence works with the trees to frame the barn. It helps that the fence is not brightly lit and is a bit out of focus. The viewer's eye will therefore naturally be drawn to the main subject of the photo, i.e., the barn. In the right-hand photo, from Cape Cod, the fence immediately clues a viewer into the exclusive nature of the beach club.

Straight on Till Morning

Sometimes a direct approach is all that you need:

Watch the Shadows

Before color, Hollywood directors and cinematographers worked carefully to cast interesting shadows into scenes. Here are some examples of images where shadows set the mood.



Watch the weather

What's the best weather for photographing buildings? Consider the following photo, from *Travels with Samantha*:

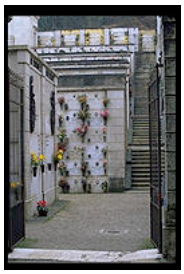
The sunlight adds punch to the fire hydrant and makes urban life seem more appealing. However, if you were trying to show people details in the buildings, a high overcast day would have been much better. For example, here is an image from Visby, Sweden:

The Drama of the Staircase

It would seem that staircases are inherently dramatic.

Lead the eye by leading the person

If your composition includes a visible footpath into the scene, it should naturally draw the viewer.



Natural Frames

It is a contrived and hackneyed idea, but it does work to use natural frames. If you're working without a tripod, you probably won't be able to stop down the aperture enough to get everything into focus. But it is okay to have a soft frame and a sharp subject.

Private Courtyards

Public Squares

The left-hand image, from Rome, has a classical composition leading the eye into the center of the frame. But the overview image to its right conveys a truer feeling for the Spanish Steps.


Michelangelo designed the Campidoglio (left) to be viewed from above. The photo at right is from Burano.


Here is a Soviet-built memorial to the Second World War in Berlin:


People

Include people in an architecture photo if they give unexpected information about how a building is being used.

Don't forget the sculpture


Swimming Pools

Occasionally, a swimming pool is a work of art by itself, as in the image at left (Hearst Castle, from the photo.net California guide). But most of the time, a pool is best used as an abstract element in a composition from above, as at right (Israel).

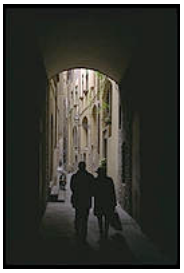

Fountains





Narrow Streets

The narrow streets of Europe are always interesting to American eyes. We're accustomed to structures built on an inhuman scale (cf. the Mall in Washington, D.C.). To get a better-than-average picture of a narrow European street, start by looking for an arch:

Both of the above images could have been better. In the left-hand image, the subject (woman on moped) could be more interesting and more engaged either with the camera or another subject. In the right-hand image, some of the black shadow should be cropped out.

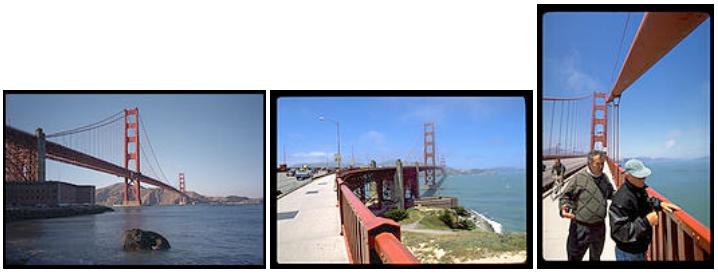
If you can't find an arch, try filling the foreground with an interesting subject of some sort, e.g., this old Citroen:

Another effective technique is to use a long lens to compress the perspective:

> "Streets flooded. Please advise."
>
> -- Robert Benchley (telegram to his editor upon arrival in Venice)

Bridges

The three pictures below show increasingly less literal views of the Golden Gate Bridge in San Francisco. My favorite is the one on the right. It isn't a very good view of the bridge--one can hardly see that there are two towers--but it shows tourists gawking at the bridge's construction and an avid cyclist using the bridge.



For the next bridge, the story behind it is more important than the structure. This is the Dike Bridge on Chappaquiddick, a subisland of Martha's Vineyard, Massachusetts (almost part of Cape Cod). In 1969, Ted Kennedy drove off the side of this bridge into the water. He abandoned his passenger, Mary Jo Kopechne, to her death by drowning. Kennedy did not report the incident to the police until the following morning and was found guilty of leaving the scene of an accident. The bridge fell into disrepair and was subsequently rebuilt to absurdly heavy duty standards. The photographs below therefore concentrate on the super-strong guard rails and the heavy metal gate that is used to close the bridge every night.

The next example is that most tired of photographic subjects: the covered bridge. For starters, here is the Chamber of Commerce view:

One approach is to get inside the bridge:

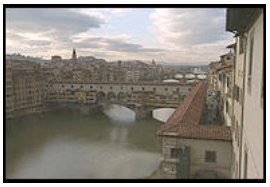
Another is to wait for darkness or gloomy weather:

Here are a couple of early morning Brooklyn Bridge photographs. This is one of the best bridges because of the unusual cabling pattern and also the backdrop of the Manhattan skyline.

San Francisco's Bay Bridge is a poor stepchild to the Golden Gate in terms of photographic coverage. However, if you get off in the middle of the bridge, at Treasure Island, and are willing to do a little bit of creative parking, you can get a good picture of the bridge as it is used:

Below we return at different times of day and from different vantage points to capture the multiple moods of the Ponte Vecchio, in Florence:

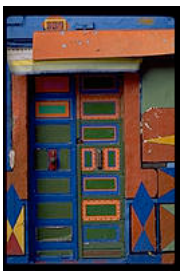



The stone bridges of Europe are spectacular:

Doors and windows







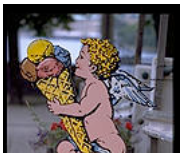
Details

A good architect is a fanatic for detail and some of the most beautiful parts of a structure are best captured in isolation.



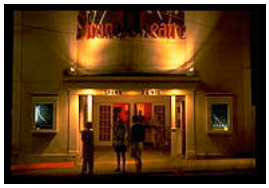






Night

A lot of buildings become more interesting at night:






Modern 35mm single-lens reflex cameras have such good metering systems that the suggested exposure for a picture like the ones above is almost always within 1 f-stop of the best exposure. With slide film, it is probably best to take 5 bracketed exposures at 1/2 f-stop intervals. With color negative film, take four pictures: one at 1 f-stop less exposure than recommended, one at the camera's recommended exposure, one 1 f-stop over, and one 2 f-stops over.

Industrial

The world of industrial architectural is the world of the large but simultaneously extremely detailed. If you're using a 35mm camera, use a tripod, sharp lenses, and slow fine-grained film, as with these photos of the Glen Canyon Dam on ISO 32 Kodak Panatomic-X film:

Here is an image from Vallejo, California taken with the Fuji 617 panoramic camera:

Ruins

A good perspective on a ruin is some rubble in the foreground and the standing structure in the background:

For ruins in the American Southwest, the best images almost always show quite a bit of context (these are from New Mexico):

Perspective Correction

The average building is taller than the average photographer. This is the source of 99% of the distortion in the world's architectural photos. Distortion isn't always bad. Note the converging vertical lines in the following image, the Cathedral of San Giovanni in Laterno in Rome:

This is an extreme example and it comes from cozying up to the facade of the building, mounting a wide-angle lens (14mm) to the camera and tilting the camera body back so that the entire facade fits in the frame. This has the effect of projecting a flat surface (the front of the building) onto an angled surface (the film). Hence the distortion. Is it bad? The photo isn't very descriptive or accurate. It won't be bought by any guidebook publishers. However, it expresses the idea of the enormous cathedral looming over mankind better than a perspective-corrected image.

Suppose we have a humbler building, like this wood-framed house in Cambridge that contains a few condominiums:

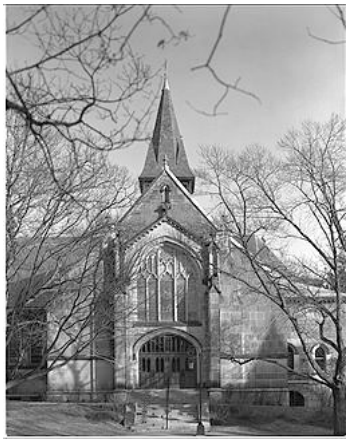
The above left image was taken with a 24mm wide-angle lens held parallel to the ground. The vertical lines in the subject do not converge. All is well with the photograph except that the composition. The bottom third of the frame contains the snow drift on the city sidewalk. We're trying to get a picture of the house. In the middle photo, we've tilted the camera back. The snow drift is out of the frame but notice that the vertical lines are converging. The house appears to be falling backward. In the right-most photo above, we've kept the camera level, with its film plane parallel to the building facade. To change the composition, we've *shifted* the lens up. This is only possible with a view camera or a special perspective correction lens on a 35mm camera. In this example, the lens was the Canon 24mm tilt-shift (TS) lens. Perspective correction lenses cast a larger image circle than necessary to cover the 24x36mm frame of a 35mm camera. However, it is possible to exceed the limits of the lens, in which case the corners of the frame will perceptibly darken:

The above left photo, of the same house in Cambridge as above, is taken with the camera level to the ground. The composition contains far too much of the street and the roof of the house is cut off. The center photo is shifted up enough to center the house. The right-most photo above shows that the Canon 24mm TS lens can be shifted beyond the limits of its image circle--note the dark corners at the top. Below is an example from Sweden:

a 17mm lens with the camera back tilted up

a 24mm PC lens *shifted* up

A cheaper method that yields much higher image quality, is to use a view camera:



Click on the photo above to view a larger version and note the detail in the church. This photo was taken with Kodak Tri-X film (ISO 400) in 1981. The camera was on a tripod at about the same height as the very bottom of the church steps. Raising the lens eliminated the uninteresting green lawn in front of the church and included the steeple in the composition. See "Choosing a Large Format Camera" if you're interested in joining the view camera club. If you hope to do architectural photography commercially, the view camera is an essential tool. Clients will expect you to use one.

Whether you use a view camera or a tilt-shift lens on a rigid camera body, you'll need a tripod.

(See "Using Tilt-Shift Lenses" for more on the topic of achieving correct perspective with a 35mm SLR system.)

Hardware

Buildings don't move. Ergo, only a lazy photographer would use fast film or a handheld camera to take a picture of a building. The professional approach is to start with very slow film for finest grain, between ISO 25 to ISO 100 for a 35mm camera. Generally a large depth of field is desirable in architectural photography. The viewer should have the choice to look at any part of the structure and find it in adequately sharp focus. Large depth of field implies a small aperture. A small aperture plus slow film implies a long shutter speed, too long for steady hand holding. Consequently, any serious architectural photographer will carry a tripod.

As noted in the perspective correction section, a professional architectural photographer will always have some means of controlling perspective, generally with a view camera.

For capturing the sweep of a courtyard or exaggerating the lines of a modern building, wide angle lenses are useful. A 17-35mm professional zoom is adequate 99% of the time. For showing a building and its environment in natural perspective, carry a 50mm lens. For compressing perspective and isolating inaccessible details, carry a telephoto lens of at least 200mm in length.

Finally

Sometimes buildings are just beautiful...

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Reader's Comments

Great photography and great technique notes as always, but just one little quibble: you note that in general, older buildings will require more environmental context. This may well be true in the countryside, but in most cities, if you want the building to look old you'll probably want to crop out the McDonalds next to it. (Unless you specifically want the contrast, that is...)

Two weeks back, I walked around Tokyo with a camera in tow, trying to capture what the city would have looked like before the war -- if you've ever been to Tokyo, you'll know that this is a very difficult task indeed! Due to the profusion of pachinko parlors and whatnot, I had to frame my pictures *very* carefully to avoid breaking the illusion... but I think a few of the pictures succeeded quite nicely, partly because I didn't even try to squeeze the whole building on film, just an evocative part of it. But don't take my word for it, see for yourself:

- http://www.photo.net/photodb/folder.tcl?folder_id=71687

-- Jani Patokallio, November 27, 2000

About context and older buildings: I wonder if the rule is really about old/new? It seems to me that all the buildings that benefit from context relate to their environment. Newer buildings are often designed without consideration of their surroundings, but this is a design choice (or failing, if this choice never even occurred to the 'architect') rather than an inherent property of new buildings. Older buildings generally were designed to function as part of a larger fabric, so they lose something when shown in isolation.

-- Sean Foy, December 3, 2000

Correct perspective.

I think there are missing "feature" of this guide. Many people that are new to photography do not have the kind of lenses, or a view camera to correct the perspective.

If you are using a digital camera, or scan your pictures or dia you can easily correct for perspective "errors" in programs like Adobe Photoshop. Probably also in most other image editing software.

The drawback with this technique ("Free Transform" in Photoshop) is that you will most likely loose contrast or detail.

-- Anders Widman, July 21, 2002

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Related Links

- Something About NAKI- "Abstract Portrait of Architecture" - Images from Photo Exhibition at the De Young Fine Art Museum of San Francisco,2000. (contributed by NAKI STUDIO)
- Fine Contemporary Architectural Photography- Discover photographs of architecture and exteriors by leading contemporary photographers at www.PICASSOMIO.com (contributed by Allan Majotra)
- James Willis Photography - Bibliotheca Alexandrina- Site focussing on images of the new library in Alexandria by the UK based architectural photographer James Willis. (contributed by Ian Watts)
- Mark Brown's Photography: Tokyo Architecture- Photography of modern architecture in Tokyo. (contributed by Mark Brown)
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