Wave Photography

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I have lived within a mile or two of the Pacific Ocean for nearly my entire life, spending a lot of time at the beach over the years. My photography has always centered on ocean-oriented subjects, yet for years I somehow overlooked one of the most obvious marine subjects of all: waves. I have surfed, kayaked, bodysurfed, skimboarded, dived and swam on, in, through and under waves, but never really spent any time framing waves with my camera. However, as my travels have eased in recent years and I spend more time looking for new photographic subjects to exploit close to home, I have begun to view the ocean waves in my (figurative) backyard as a photographic subject with nearly endless creative possibilities.

The Wedge, Newport Beach
At the Edge of the Sea

The simplest waves to shoot are the ripples and oscillations found anywhere there is water: harbors, marinas, lakes, glass ocean. Here I look for abstract qualities: patterns that repeat or nearly so but that are also difficult to recognize when isolated from their surroundings, removed from their context. Usually it is not the wave itself but the background that is most important since background colors reflected on the smooth water dominate the image. I tend to use mid-range telephoto focal lengths (e.g., 200mm, 300mm) so that I can frame out the surroundings and distractions, hopefully producing an image that is about abstraction and pattern. I know I've succeeded with one of these shots when a viewer says "Very cool! But what is it?"

Mavericks, Half Moon Bay

Along the shoreline, shooting out toward the lineup of incoming waves, I find that focal lengths from 200mm to 500mm are effective. Since I live on the West coast, morning is when the light comes over my shoulder and frontlights most waves, which is a good thing since morning is when we are most likely to have no wind and smooth, glassy water. Positioning relative to the wave is important. I try to avoid a straight-on view of any wave and will move around
constantly to look for the best angle given the direction, size and shape of the waves on a particular day. Typically the more oblique the angle the more pleasing the composition, looking down the axis of the wave. But where to achieve this? It takes some looking around and getting familiar with the nooks and crannies of the coastline. Rock jetties are great vantage points as they allow the photographer to move out from shore onto the water beyond the point at which the wave breaks and yet maintain a low angle relative to the ocean surface. Piers allow for the down-the-barrel view as well, but the high angle looking down on the wave is sometimes difficult to work from. Anywhere there is a sharp bend in the coast and waves that break close to shore provides a vantage for looking down the length of a wave without actually getting wet. At surf contests, where photographers remain in place most of the day, tripods are the choice. But for moving around the beach and on jetties and piers I prefer the mobility of a monopod.

In the Water

To really capture the feel of a wave from the inside out, our intrepid photographer has no choice but to venture out into the surf. If you enjoy waves and the ocean, you will eventually go this route, so my recommendation is to do it now rather than wait. It is in the water that photography really gets fun. You can get your dose of exercise and shoot some saleable photos

Warm Water Jetties, Carlsbad
at the same time! I think my experience in the water shooting waves is pretty typical of
dedicated surf photographers, although most of the ones I meet in the water are looking to shoot
surfers while I am usually looking for empty waves. Three pieces of equipment are paramount
for surf photography: a fast motor drive, a wide lens, and a strong and lightweight waterproof
housing. I use housings custom made by Del Mar Housing Projects in Del Mar, California.

![Wave Image](image.png)

_Ponto, Carlsbad_

These are "glove fit" housings, meaning there is very little space between the extraordinarily
molded plastic casing and the camera itself. I chose to have only a single control installed in the
housing, which I use to adjust the aperture while shooting aperture-priority automatic on a
Canon 1D Mark II. (Since each control involves an o-ring seal, the fewer controls that are built
into the housing the lower the risk of a flood.) 95% of the time I use a 15mm fisheye lens in this
housing, with fixed focus set at the f/8 hyperfocal distance which yields a sharp image from
about 1.5 feet to infinity through the fisheye. The front cover of the housing has a small polished
acrylic dome accommodating the angle and curvature of the fisheye lens without vignetting. It
is only when the surf gets really big and I need to move back from the impact zone that I will
change over to a 70-200 f/2.8 lens, employing a special acrylic front port that has a lever-
operated transmission with which I can zoom the lens. Before placing the camera in the housing
I preset several exposure controls: ISO (usually 320), metering (evaluative), and exposure
compensation (+2/3 stop). On a typical sunny morning in California the result of these settings is usually an exposure in the range f/8 @ 1/1000 to about f/11 @ 1/2000, with only the specular highlights along the crest of the breaking wave being clipped.

This is my favorite wave photo because it brings back memories of a great morning at Ponto, Carlsbad, just a couple minutes from my house. This was a big clean day and noone else was out. I had this wave, and many others, to myself this morning.

Working in the surf zone means shooting from the hip. I rarely use the viewfinder, preferring to hold the housing by its large pistol grip at arms length out of the water. (The first time I went out in big surf with my housing and held it to my eye to compose a photo, I paid for it with a black eye and stitches.) Using big fins I will swim myself into position right where the wave is breaking, in the impact zone. The goal is to have the lip of the wave pass just over my head so that for a brief moment I am totally tubed, in the barrel, wrapped in the green room. As the magic moment unfolds I am holding my camera high out of the water, index finger pressing the trigger on the pistol grip in machine gun style while my head and shoulders sink under to let the wave pass over and past me. There is great satisfaction hearing the water rip and tear as it starts to crest, transitioning to a hollow roar as it folds over into a barrel, with my camera thwack-thwack-thwacking out eight frames per second to capture the scene. Usually my timing and position are well executed and I manage to have one or two frames from the sequence that are
composed as intended. However, there are occasions when I am out of position and end up taking a wave to the side of the head. I tell myself these disorienting events are to be appreciated as opportunities for learning and reflection that will help me to improve as a photographer and waterman, but they still hurt.

After a really good morning session in the water with full sun and glassy, hollow waves, I may end up with 600-900 raw images on my 8gb card. Returning to my office, I soon pare these down to 20-30 that are worth checking for focus and processing in Capture One before a final selection based on composition, color, sharpness, absence of water droplets and clean shadows. I feel lucky if I end up with two with which I am really satisfied. Besides having fun, my principal motivation is to produce images for stock, and many of my wave images work well for that. I also try to achieve some gems that can be printed at 24" x 36" for private collections and commercial wall hanging. I am constantly surprised by how well the 1D Mark IIIN's 8 megapixel files hold up at such a large print size.
I should mention that after having photographed waves for the past few years, I am now fairly selective about when I make the effort to go out and shoot. Checking the 6am surf report, I hope for head-high waves which are well groomed: consistently shaped with a long period interval between each resulting from having traveled thousand of miles across the Pacific. In southern California, waves like these arise in summer and fall, originating from distant southern hemisphere storms while in winter they arrive out of the north generated by storms in the Gulf of Alaska. If the surf report is good, I then cross my fingers that dawn brings a clear morning full of sunlight, with either an absence of wind yielding postcard perfect glassy waves or offshore winds that blow back each wave into a long veil of spray. If all these conditions are holding I am quickly out the door knowing good photographs can be had from either the beach or the water! The rest of the morning is all about the light, the color and the shape of the waves and how well I manage to capture them with my camera.