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Artificial waves gain traction for surfers

By Ethan Stewart
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The wave pool arms race has just escalated. One hundred kilometers south of Peru's capitol city of Lima, in a massive outdoor mall facility, the California-based American Wave Machines recently unveiled a wave park of epic proportions.

Being touted as the "biggest standing wave in the world", the Ola Moviestar surf arena, with its multiple wave options and ability to pump out 4-to-5-foot barreling rights and lefts, had its official opening earlier this winter -- a fact that was largely overlooked by the surf universe. Two other fake wave Shangri-Las, Kelly Slater's as-yet-unseen [Wave Company \(KSWC\)](#) and Spain's [Wavegarden](#), also captivated the masses this winter with their high-profile promises of ocean-free stoke factories.



Ola Moviestar Surf Arena is just south of Lima, Peru.

However, with ringing endorsements starting to come in from folks like former World Champion Sofia Mulanovich and the Peruvian National Surf Team (who use the park as a training facility), the only artificial surf spot in South America is starting to steal the spotlight. "The park has been packed and people are really taking to it," explained Bruce McFarland, founder of American Wave Machines. "From total beginners to some of Peru's best surfers, we can generate a wave for everybody that truly replicates the shape of what we ride in the ocean."

Interestingly enough, Slater's purported designs and the Wavegarden's long synthetic peelers are "traveling waves." That is to say, the wave actually peels off down the line, you paddle in to it, and, like you would in real surf, you physically travel forward as you ride the wave. But the new Peruvian playground works more like the old flow-rider parks that came into popularity in the late 1990s -- the wave stands still and constantly pitches out over itself using the same water while also providing a small shoulder section in front of you for endless cutbacks and roundhouses. In short, the wave never ends.

According to McFarland, however, unlike the flow-riders of old, which required special, decidedly un-surflike boards to ride, his companies patented "Surfstream" technology, which allows for an experience more in sync with actual, real world wave-sliding. A deeper pool bottom with contours and a pneumatic air pump that blasts out circular bursts into the water creates a wedging wave shape virtually identical to what you would find in nature, allowing riders to shred the man-made gnar on actual thrusters. "The key in all of this, no matter what technology you are using, is the profile of the wave you create and ours truly is the shape of a wave in the ocean," says McFarland.

Despite the recent uptick in wave park buzz, the concept of man-made waves in a place that has no ocean is nothing new. Disney's Typhoon Lagoon, Rick Kane's Arizona surf antics in the movie "North Shore," and the 1985 ASP contest in Allentown, Penn. come immediately to mind.

Even more intriguing, as McFarland admitted, is that "In a lot of ways, that original technology was the most accurate [to simulating real world surfing]." So why then, if everyone loves surfing so much and the best breaks the world over are jammed up with the wave hunting masses on any given day, hasn't the wave park revolution caught on? (Even Japan's Seagaia Ocean Dome, widely considered the best wave park of all time and located right in the middle of a major league surf culture, ultimately shut its doors.)

The reason, it seems, is the money. Surf parks aren't cheap and finding the right business model to sustain them has proven to be a heck of a lot harder than you would think. How do you rent them out, what do you charge, what type of amenities to surround them with and what type of wave (i.e. small, slow crumblers for beginners, fast, pitching pits for experts, standing waves or traveling waves) is most marketable?

For McFarland and his American Wave Machines, who already have six different parks open around the world since incorporating in

2000 and "several more" in the works, the answer seems to be a little bit of everything. Not only does their Surfstream technology offer four different types of waves in pools of all different sizes, but AWM also has a patent on a traveling-wave technology -- akin to the Wavegarden -- but has yet to find a deep-pocketed enough investor to help them build it.

"The reality is, machine surfing is here to stay," summed up McFarland. "The technology is out there to make a truly incredible artificial surfing experience but you have to find the right buyer that is willing to go to the next level." Right now, for good or bad, at a huge outdoor shopping mall in Peru complete with 10 discotheques and two million annual visitors, what exactly that next level might look like is becoming a bit more clear.
