

SOUNDINGS:



ACUTE ANGLES

Twin-fins in the modern context.
Text & Interviews by Christian Beamish





PHOTO BY SWILLY

Where modern commitment to the twin-fin design is concerned, Australian Asher Pacey is at the vanguard. Maldives, June 2017.

In the same way that all squares are rectangles, but not all rectangles are squares, all surfboards with two fins are not performance twin-fins. The Mark Richards twin, with its wing-swallow plan shape, vee bottom, and high-aspect ratio fins, is as distinct from the keel-fin fish as a thruster is from a single-fin.

The emergence of Steve Lis' keel-fin design into the mass consciousness via Derek Hynd and Andrew Kidman in the 1996 film *Litmus*, and the ensuing interest in "retro" surfboards, did not seem to include MR-style twins. Perhaps the design was not "retro" enough, as it verged right into the contemporary thruster era, along with all the associated commercial trappings of high-performance surfing.

Trends in surfboard marketing aside, the wing-swallow twin-fin was arguably the design behind the biggest-ever leap forward in performance surfing. MR turned pro surfing on its head. Dane Kealoha and Larry Bertlemann blended raw power with sublime arcs. Kevin Reed boosted functional airs over the kelp patties in Nor Cal (albeit on a pintail twin-fin). And Martin Potter brought that same air game to the pro tour. One look at MR's carve in the *Free Ride* era, or Dane Kealoha drifting his Glenn Minami-shaped twin-fin through caverns at Backdoor, illustrates the potential of the concept.

The fact that twin-fins were only around, commercially speaking, between approximately 1979 and '82 may very well prove the overall effectiveness of the thruster. But given present-day advances in foils and bottom configurations, perhaps another look at the concept is warranted.

Naturally, any conversation about performance twin-fins begins with the creator of the design himself, and herein MR graciously explains the details of the boards he rode to four consecutive World Titles. His suggestion of speaking with Robin Prodanovich—head shaper at G&S when the company made MR twins for the U.S. market in the late 70s/early 80s—was well taken, and Prodanovich's insight on the original boards, as well as the evolution of the design, puts the past and present into context. Glenn Minami's voice is also essential, as he adapted the twin-fin to powerful Hawaiian surf and shaped for the era-defining Dane Kealoha. In a similar vein, Lance Collins supplied the forward-looking Echo Beach crew with the fast and loose boards they needed for their New Wave program. And finally, Spider Murphy, of the venerable Surfari Surfboards label in South Africa, not only shaped Martin Potter the boards he rode to break into the top ranks of the tour, but also continues to hone the twin-fin today with his heavily contoured "Missile" design.

MARK RICHARDS

Newcastle, Australia

The leap from single fin to twin seems inevitable in this multi-finned age, but not so when you first “split” the standard surfboard into two halves. How did you come to that concept?

My interest was sparked by Reno Abellira surfing a short, round-nose twin-fin during the Coke 2SM Surfabout in Sydney in 1976. Reno helped me with some dimensions and I made one, which I named the “Bumblebee.” In 1977, I spent a few months shaping with Dick Brewer, and I explained to him that I was having trouble in small-wave conditions in the events, riding single-fins, which everyone rode at the time. I told him I had the Bumblebee twin, which went great in 2-foot surf. He said the solution to my dilemma was to design a twin-fin and aim for a shape halfway between the round-nose Bumblebee and the narrow 6’8” single-fin I was riding. I went home to Newcastle and started working on this project. The first one I shaped was the twin-fin I rode in the movie *Free Ride*, and which is now known as the “Free Ride Twin-Fin.” It was 6’4” long, 21 inches wide, and 2 7/8 inches thick. I rode it on the pro tour in 1978, winning the first of my four Bells titles on it. For me, it was a revelation in terms of speed, maneuverability, and performance. It finally felt like I had a board that was an extension of my feet, something that would take me where I wanted on the wave.

Some surfers believed that the twin-fin was almost too loose. I recall some guys describing it as “squirrely,” but there are many photos and much film footage of you riding the boards on the North Shore in thick waves at Backdoor and OTW. There is one shot in particular that comes to mind, of you gouging with a large wake behind you. You were hardly holding back on those turns. Was there something you did or still do in the shaping to provide your boards with hold and drive?

I think there are a lot of myths and untruths about twin-fins. Basically, a badly designed twin-fin doesn’t go well. And a well-designed one is

a revelation. The main aspects that I built into the first board, which contributed to its success, were a deep-vee bottom to help transition from rail to rail, a wing swallow to narrow the tail and improve holding power through turns, a hard resin edge from nose to tail for bite, and a concave flute through the wing that acted like a little fin on the rail.

How do the fin templates and placement affect performance?

One template, one fin position—never changed it from day one. I can’t comment on this because I don’t experiment.

How did the overall design evolve then, from the first ones you started making, in terms of plan shape and bottom configuration. Was there an “ah-ha” moment that made the concept fully realized?

From ’78 through to ’85 there were four-distinct “generations” of my twin-fins. The main changes with each generation were a narrowing of the nose, a little extra curve in the tail outline, a reduced vee, and a more-foiled thickness distribution with less volume in the nose.

You build a range of boards today, including “retro” and “contemporary” versions of the classic MR twin-fin. What aspects of contemporary surfboard design do you incorporate in the “modernized” versions of the twin?

My retro series boards are genuine, exact reproductions of the old designs. I also make a modern twin-fin, which I’ve named the “Super Twin.” The only aspect carried over from the retros is the wing swallowtail. The bottom of these boards is single-to-double concave, soft rail through the center, and a hard edge in the tail, with a slightly fuller nose template than a standard thruster. They come stock with a third fin plug in the tail, for the option of adding a small stabilizer fin.

The twin-fin faded from popularity with the advent of the thruster. But given

how thrusters have morphed and developed in the nearly 40 years since their first appearance, perhaps there was or is more to explore and refine on the twin-fin design?

By the mid 80s, Simon [Anderson]’s thruster had “killed” the twin-fin. I felt there was more design work and life left in the design, but the surfboard-buyers’ market wasn’t interested any longer.

It seems like the Lis-style, San Diego keel-fin fish is a completely different design than your twin-fins. Not to compare, or rate the two—but was there influence from that design on what you did? And did you give the characteristics of the keel-fin boards much consideration in the creation of your twin-fins?

Absolutely none at all. I was not aware of those boards prior to designing my early twin-fins.

The move to “ride anything” these days takes in a lot of different design ideas. And it seems that thicker and wider boards, relative to “competition” or “pro-style” thrusters, can still have high-performance characteristics. What are the aspects of your late 70s and early 80s twin-fins that still resonate for you today?

I think we’re in a golden era of surfboard design. But in surf up to 4 to 5 feet, it’s still hard to beat a twin-fin in terms of speed, maneuverability, and just plain fun. They’re still my absolute favorite, go-to, ride-everyday design. Without sounding like an egomaniac, the reality is the “Free Ride Twin-Fin” was right from the start—and a lot of people who made twin-fins just made imitations of mine.



PHOTO BY BOSKO

In the late 70s, you were shaping MR models for G&S in San Diego. How was it that you were situated for that gig?

I started my professional shaping career at Gordon and Smith in 1973. Larry Gordon worked a deal out with MR to build his twin-fin model for the United States. I think we hooked up with Mark in '79. I went to Australia and stayed with him for two months in 1980. We either started the twin-fin [at G&S San Diego] in late '78 or early '79. By that time, I was the head shaper at G&S and it fell upon me and a couple of the other shapers to try to faithfully copy MR's design. Mark provided us with original templates.

Did MR give you specific shaping instructions?

He was very explicit in how he wanted the boards to be shaped. He actually left one of his personal boards with us to use as a guide and model for what we needed to make. We tried to recreate it as faithfully as possible. Realistically, though, we had to make a few changes because his twin-fins were really progressive and a lot of people had difficulty riding them. They had a lot of vee in them, and they were very thin for their time. Very sensitive boards. Twin-fins were a little tricky to ride anyway. Then you throw in this other stuff that Mark had designed, and they were a bit of a handful at times. So we backed off a little from the original, with his blessing of course, and tried to create a board that was more user friendly for the general surfer.

Can you talk me through how you do a contemporary twin-

fin bottom configuration, plan shape, rails, etcetera?

It's really important that the wide point be in the right place on the twin-fin. On the classic, old twins, the wide point was forward of center. Having that wide point forward was really important because you needed a little straighter run of rail line from the wide point back through the tail, because, again, twin-fins didn't need any help turning. They turned on a dime, no matter what you did to the plan line [outline]. But getting that wide point forward was really important. Extremely flat entry rocker and tail rocker were important. On a 6-foot twin-fin for example, I'd use about an inch-and-a-half tail rocker, max. I shortened the vee. The vee used to extend almost up to the wide point on an MR style twin-fin. So the vee got shortened, and that really helped. When I put the vee in, I created kind of a flute where the wing is. So, we have a cut wing and a swallowtail, and right where the wing is, I drive the vee down into that area. Once I have the rocker established, the bottom is actually flat. Then I come back with my 7-inch disk sander and carve the vee in. And that allows me to dive the vee into that wing and create that flute, which extends up about 6 inches. That fluted wing almost acts like either a channel or as a little runner fin. It creates a little more bite, gives that twin-fin a little more holding power. On the MR template, the wing is at about 7 inches, and you keep the fins back too. For the sake of discussion, if the wing were at 7 inches, I'd put the trailing edge of the fin at 9 or 9 1/2 inches. The trailing edge of the



PHOTO BY JOHN DURANT

fin is definitely ahead of the wing. And then there's the swallowtail. That's super important on the twin-fin.

Because the swallow acts as a pintail when you're up on one rail?

Exactly.

ROBIN PRODANOVICH

San Diego, California

You made the tails narrower on the twin-fins you shaped, specifically to adapt them for waves in the islands?

I worked off the single-fin, and made it to a wing swallow for the twin-fins. Back then [circa mid-to-late 70s], the round pins were pretty narrow. I wanted more of a performance twin-fin, rather than a fishy type. The narrow-tailed ones were more performance oriented.

What were the characteristics of the boards you were making for Dane Kealoha?

They were 5'11" by 20-inches wide by 3-inches thick. Wing swallows—kind of basic, what we were making back then, but a bigger version. Bigger, wider, thicker. I had a hard time shaping 3-inch thick boards. They were harder than the other ones to shape. But that's what he rode. He surfed them good.

Did you put a bottom edge all the way through?

No. Just the back third, and a semi-soft rail throughout. But back then the rails were a lot harder. They were corners. Eventually we softened it up, like today, but the earlier ones were edgy. Really knifey. The bottoms were flat vees, heavy in the tail. But the rocker was a bit straight, so the heavy vee provided looseness.

But it seemed like Dane Kealoha really controlled the slidey aspect of the design.

Yeah, the guy really carved it. The rail line was a pretty "carvey" kind of rail line. It wasn't "loosey." You could still get drive off the turn. It wasn't like it was just super loose with twin-fins, because the rocker was pretty "drivey."

How have the twin-fins you're doing now changed?

The hips are not as narrow. Outline-wise, I still have the wing swallow. The bottom is not the vees. We're putting concaves on them, making them fast—a single concave with a little double in [through the fins]. Pretty much modern bottoms, but not as dramatic. The concaves we put on [thrusters] now are way deeper.

We're doing the twin-fins without the vee, but not full-on concave like our other performance boards. The twin-fins still have flatter rocker, so we've got to use something that's bigger, with a flat on the bottom through the middle.

When the thruster came on, did we move away from the twin-fin so quickly that we missed some of its potential?

We could have probably taken it further. But thrusters are, to me, superior for most surfers. So, I wouldn't say that we shortchanged the twin-fin by going to the thruster because, as a matter-of-fact, for 99 percent of surfers, the thruster works better.

Did the thickness of the earlier twin-fins have a performance element to it?

Back then everyone was riding thicker, wider boards. And you get used to a certain amount of "paddle." Dane would be a riding a board 2 1/2 inches thick today, or less, maybe 2 3/8. But if you took 5/8 of an inch

of thickness off his board in one go, that would be culture shock. Back then, his boards were almost normal. He rode them a little thicker but 2 5/8 was thin back then. The other thing is the rockers and the outlines were different. So the wave-catching ability of the board wasn't as great as today. The rockers today are a lot better. You can glide into waves a lot easier, even if the board is thinner. It's all a matter of if you can sink the rail on a wave. If you're able to sink the rail, your surfing can be a lot more performance oriented. The other part is the rocker. You want your board to sink [through a turn] and react and create speed. But I don't think a thicker rail, in general, is more performance oriented.

Are you using the same fin template on your twins today?

If you put a box in you can put any kind of twin-fin on it. But for the guys that want glass-on fins, we're still using the same template. Those are pivot fins, because the rocker, the rail line, is pretty "drivey." The customer wants that original feel. Not necessarily that the guys are

sliding. The guys are still doing good turns on the twin-fins. I don't think it's a "slidey" thing. That's why we made it a narrow tail, because we didn't want the slide.

GLENN MINAMI

Honolulu, Hawaii



PHOTO BY JEREMIAH KLEIN





(Previous) Dane Kealoha at a spot photographer Warren Bolster called “T and C’s,” likely an obfuscating send-up of the wave, which is named Tennis Courts, and Dane’s sponsor, Town and Country. Regardless, in 1978 Oahu was where the twin-fin achieved its skate-infused beachhead, sending surfers the world over clambering for little winged swallows with canted and toed fins.

Your Wave Tools twins were a large player during the late 70s and 80s performance push in places like Echo Beach. Where and when were you first introduced to the design?

In about 1970, I got the opportunity to work at Dynoglass—the old Plastic Fantastic factory in Huntington. I had just started shaping there and David Nuuhiwa came up, and he had the first twin-fin anyone had ever seen from some guy in San Diego. I was a newbie compared to Terry Martin, and they were

trying to make these twin-fins for Nuuhiwa. They made this one that worked magic and they rebuilt it 15 times. We were trying to shape him another one because the first was all worn out—and no one could do it. The one that did work, Terry Martin shaped a big concave in the tail with a sander, and it worked really good. The other factory shapers didn’t see that. They made them rounder or flat, but I put concave in mine and the thing worked unreal. I’ll tell you a little bit of a story. Me and my friend Bill Stemridge made a board for Nuuhiwa. It was November,

Huntington, one of the north swells where it was 6 to 8 feet, perfect, coming into the pier, offshore. Nuuhiwa dropped in and went straight up and down. Bam! Ripping into the pier. He brought the board back to the factory and said it didn’t work. So, me and Bill grabbed the board...and tried to ride it...and we couldn’t even turn it. So that’s when I figured out a way to just put a concave in between the fins. It does something to the boards. I’ve been doing it ever since.

[Former pro surfer and filmmaker] Jeff Parker told me about how you started sponsoring the kids who surfed at Newport Harbor High School—Danny Kwock, Preston Murray—who were great surfers. He described them as hungry and looking to innovate, looking to turn their boards. And they felt your designs were faster, more maneuverable, and they held in better than the single-fins other guys were riding, even though you could slide the tail. So all of sudden it was about performance. Can you break down your shaping process on those designs?

You take the planer and you gun off the flats, put a little bit of rail in. And I take my sander—I shape my boards with a sander too, like Terry Martin—burn it off with a sander real quick, and then turn the rails and smooth it out. It would take me 15 to 20 minutes [to finish shaping a board]. The concave in the bottom is real slight. I have a block and coarse sandpaper that I use just real fast. I put the vee off the tail with the planer and the sander. The trick is to train yourself. It took me three or four years to get the time down that low. When I first started it was three and a half hours. [Collins puts a rocker template on a finished board in his showroom.] It’s the same rocker on all the twins. I haven’t altered it that much because it works really well. Our boards hold. I’ve done twin-fins for Titus Kinimaka, for Sunset, 10-foot Hawaiian. They hold good. It’s just a matter of catching the wave.



PHOTO BY SHAWN PARKIN

LANCE COLLINS
Costa Mesa, California

You started shaping in the early 60s, but you also have a long history with MR, and working with his twin-fin templates. What sparked your relationship with the design?

Our factory was behind the Gunston 500 contest site, and all the top guys would hang out there—MR, Shaun Tomson, Cheyne Horan, the Ho brothers. Martin Potter wanted an MR model, so I just fine-tuned what MR did. The twin-fin was really consistent. It allowed for a wide range of surfing. It let you use one board for everything except big waves. A few years ago, Kelly Slater asked me to make him a twin-fin. So I made it for him and he rode it at J-Bay. To watch him ride it was amazing—it was a 5'7". He grew up with twin-fins so he knows them well. He was so on the rail. It was like lightning. The transition from rail-to-rail was so fast.

How have your twin-fins evolved?

The rails are more foiled, but the bottom is so fast—on one rail and then on the other. It wasn't so foiled back then [in the early 80s], but right under the wing there was a little fluted area and a double concave [between the fins] as well. The bottom was flat from nose to tail and we kept the outline as round as possible from nose to tail as well—no flat spots that would catch. It was a low rail in front and then into a soft rail. The bottom edge wouldn't run past the 18-inch mark. The fin templates are the same ones we used. MR had a set, and the ones we used were a little bit more raked. The twin-fin is definitely faster through a turn than the thruster but, in the past, you really had to be on it. Your feet needed to be right over the fins, or the twin-fin would slide out through the turns. We've got a model called "The Missile" at the moment. There is such a big difference in the fine-tuning of the boards through the 80s and 90s to today. And what a difference it's made. Every one of the boards go. You won't get a dog. They're just so consistent. Now I'm looking at the big wave riders... I better ask Twiggy to give me a test drive to see how far he can push it with that late takeoff. When they touch down, the rail has

PHOTO BY PIERRE TOSTEE



SPIDER MURPHY

Durban, South Africa

to bite. A 9'6" twin-fin gun would have to have the wing swallow of the original setup. We've got Cave Rock [a thick, hollow, right-hand reef wave] just around the corner, and I've got a couple of guys who are really gung-ho, and that's a really good testing place. The bigger "Missiles" for our area are 6'6", but some of the guys are going 7 foot, even 7'6". Sometimes 8 foot as well. But for safety I want to go up slowly. Seven-foot, then 7'6", then into the bigger boards. Your big waves spots—Maverick's, Dungeons, Sunset Beach, and Waimea—the

guys are looking at 8-foot, maybe 9'4". I've been jumping back and forth between a "normal" board and "The Missile," and even my ex-pro guys are saying, "Geez, you've got something there." We're taking the twin-fin and learning from that. We've got the twin-fin as a base, and we've got that exit of the concave that comes out the side, on the wing. It's all about maneuverability. So as soon as you want to turn, it snaps into the turn. The big thing is the takeoff on those heavy waves, pulling that turn when there's nothing underneath you,

and that rail is going to grab and hold you in. A lot of guys [when twin-fin first came around] found it uncomfortable, because on the twin-fin you had to have your feet over the twin. Some guys would put a stabilizer on their twin-fins, and that's how the thruster started. The twin-fin got the thruster started. Simon [Anderson] was clear enough to fathom that out and put all the fins the same size—and it was an amazing thing. Except there is still something untouched with the twin-fin. We need to dig a little deeper. ●

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