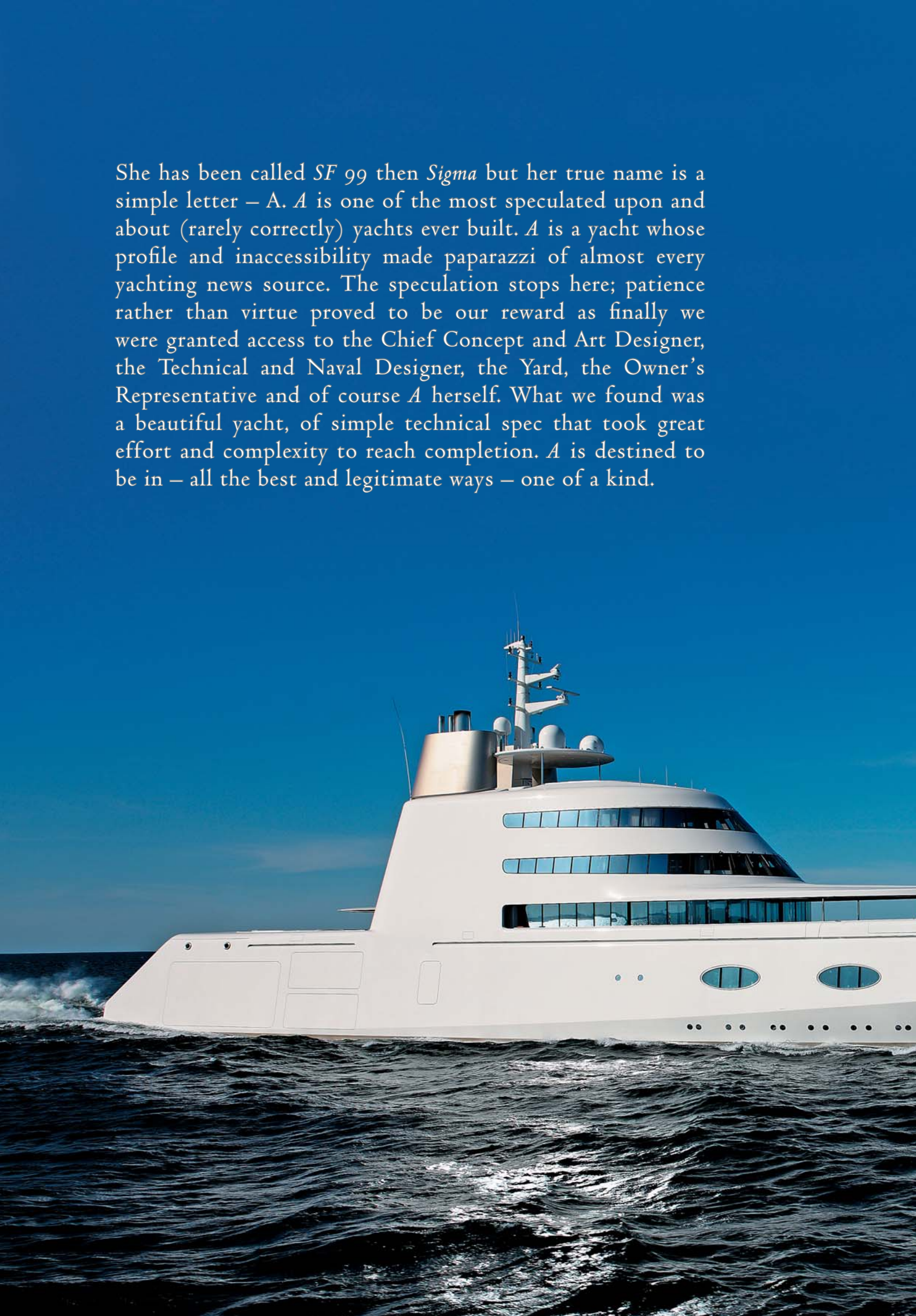
She has been called *SF 99* then *Sigma* but her true name is a simple letter – A. *A* is one of the most speculated upon and about (rarely correctly) yachts ever built. *A* is a yacht whose profile and inaccessibility made paparazzi of almost every yachting news source. The speculation stops here; patience rather than virtue proved to be our reward as finally we were granted access to the Chief Concept and Art Designer, the Technical and Naval Designer, the Yard, the Owner's Representative and of course *A* herself. What we found was a beautiful yacht, of simple technical spec that took great effort and complexity to reach completion. *A* is destined to be in – all the best and legitimate ways – one of a kind.



Some years ago a young Russian client approached a number of designers to build his first yacht. One of those who pitched was Martin Francis (pictured right) – he recounted to me at our meeting that he was pleasantly surprised to have his presentation applauded. He'd been advised that this was an owner who didn't want anything too radical. In the end, or in fact at the beginning, he did not secure the contract and it went briefly to another designer. That relationship was doomed to brevity as was the concept that the yacht should not be radical. By the time Martin was approached again, Philippe Starck (pictured opposite, who was already working with the owner on other projects) had drawn up a profile (below) which was anything but conventional and well deserving of the description.

It's about love

I met with Philippe in his Paris studio to discover how the design came about. Very quickly, the answer came. The renowned mathematician and philosopher René Descartes was known for doing his best thinking in bed and M. Starck is, it seems, very little different from his 17th-century countryman: *"I designed it in my bed, (my wife) was sleeping and I designed it completely outside, inside – the hull, everything, in three hours…(or) three hours, 30 minutes."*

The original rendering still strongly resembles the finished yacht and while we chatted he sketched in only a few bold lines the profile as he first envisaged it. What – I wondered – drove the unique profile and accommodation up and aft. Philippe could not really say: *"The proportion for me, the elegance, is to make something which is this proportion. I cannot explain (to) you why. I cannot, but I (knew immediately) it was this."*

As to the form and design philosophy of the yacht he had this to say: *"I love boats (and) I am not happy with what I see. For me …when I (look at) … megayachts, I see nothing. I just see things which don't deserve to exist."*

That is because of a cookie-cutter approach I suggest? *"They… only (exist) to show… the power of money, the vulgarity of the power of money… I am absolutely against that. And because there … (are) more and more yachts I said we must fight that, because it's (a form of) landscape pollution. And there is nothing human, no positive value in that…poor people are jealous, nature is destroyed and even the people who live in these boats are not happy because they are so (bored), so uncomfortable and so (bored)…so what are the main ideas of (M/Y A)? First…no vulgarity. The main axis for this boat is harmony…harmony with nature, with the sea, and with (the) humans who will live in this boat. When you see the boat all the shapes are very smooth (so) I have no strong reflection, never … a flat surface….also there are no details."*

(Here he is referring to protrusions and the items that often by regulatory or practical necessity destroy the homogeneity of line he seeks – on how this became practical more later.)
"We worked for five years to avoid any small details like that which are common in boats… to finally have a boat which looks like (the) computer (rendering). (Such) a boat is (the) vision, (the) dream."

discussion with Philippe, though, a figure of around 100 metres was mooted. In fact the first name *SF 99* is from Starck and Francis; the 99 had little to do with the length, however. *"We deliberately wanted to make it not the length (because) at (that) time (it) was changing weekly. So we just picked a number. And then (also) we wanted to downplay the size. The final LOA, 118 m, grew from the space required for guests, machinery and crew."*

The interior, Martin added, was all Starck – though they offered some suggestions. He commented on the guest interior: *"From my point of view the exciting thing was (Starck) completely re-looked at the way the spaces were used and the nature of the main salon and all (those items). (And) the way the owner lived…there is more private forward living space (forward) rather than aft, and the height of the bulwarks are quite high…again, maintaining privacy."*

The concept was for a top speed of around 25 knots. *"A key factor was – we all felt – Starck, myself and the owner – that you couldn't make a boat look like that and have it going 16 knots. It wouldn't be appropriate."*

One of the major parts of the hull's look is the hard knuckle that runs from the bow almost to the stern (pictured). Was that a functional item or an aesthetic one? Clearly it started aesthetically as is seen on the initial Starck rendering. *"It's very attenuated, in the Starck initial (rendering) – it's very, very soft. But if you take the shape that you're going to need here, in terms of the bow and the fine entry, then for me that implied that you would need to have a more rapid transition. And the other thing I wanted quite clearly (was) to make sure we didn't bury the bow (and) that there was very clearly an increase in buoyancy and…wave shedding."*

In fact Martin told me they planned raise-able wave breakers and was not sure if they were ever fitted (I later found they were). Martin's involvement ended around when the yard was chosen. Martin was ill-pleased (as were many others in the project) by the paparazzi-esque shots that found their way onto the net and various yacht news websites. They were shot with the technical shell doors forward open and did little to enhance the delicate bow line. The anchors are stowed behind these doors and a platform deployed just ahead from where crew can observe dropping and weighing of anchors. I asked Martin if he had considered using a Wallygator like bomb bay door system where the anchor drops straight from the boat's bottom. This allows better swinging and of course eliminates the inevitable chain chafe on the bulb. *"I did, and even people from the shipyard talked about it – it's very unusual for me to be on the side of conservatism, versus a shipyard, but I just felt…this is a large vessel (and say)…you're going to drop anchor and run astern in Monaco and…somebody… fouls the anchor - how do you get somebody else's anchor chain – (one that is) caught over here, is underneath your boat, and is 6 metres down – how do you get that off? I mean the forces we're talking about – it's bad enough on a 50-footer…I just felt it was irresponsible!"*

It can be seen aft that the props are in tunnels: *"We have got tunnels, definitely, because…if you're going to get that speed…you need large props and large props at that point…needed great draught. (Without tunnels) you just can't get the prop diameter in and get the buoyancy and everything else."*

The propulsion is conventional not diesel electric; I wondered why as the assumption is often made that on larger yachts (like *Octopus*) the electric ship is optimum. One yard that bid for the build was convinced that DE was the only way to go but in fact (and in large part based on his experience with cruise ships – and that Francis Design recently drew the exterior for five Celebrity 120,000-gt ones) Martin wasn't convinced; BCP, who did the spec, agreed. *"It (would) probably (have been) substantially heavier – (by maybe) 20% and a lot more money and slower. It just didn't stack up for a vessel of this size, with a small amount of accommodation relative to its length, and with a speed requirement in excess of 20 knots…the whole rationale of diesel electric is the fact that you're sharing your hotel load with a propulsion load."*

For cruise vessels hotel loads are enormous; in fact he told me the biggest stack on a cruise ship is not engine or genset exhaust, but the galley one.

Free Surface Moment, although for long passages or larger sea states it would be emptied. On the sixth deck there is a Jacuzzi just under the twin stacks and round roof. These are of composite construction and are the items referred to in *TYR* issue 86, p 99, when I visited Rhebergen composites (although I could not then reveal they were for *A*).

Main propulsion is by medium speed 1,000 rpm diesel MAN RK 280 at 9,000 kW (see page 61, bottom). Their flywheels face aft and the power passes through a reversing gearbox then returns – outboard of the mains – to CP props. Propulsion is – once clutched in – by varying pitch and RPM in accordance to a combinator curve. At rest they are declutched; shaft brakes are supplied allowing placing voyages on one engine, although Dirk told me at higher speeds it's better to let the lazy shaft freewheel.

All exhausts dry-stack to vertical outlets atop the sixth deck, one of the few straight design elements as they set nicely against all the curved forms. The gap between them is practical too as it has a venturi effect that accelerates the air and pushes the exhaust plume (and any smuts) up and away when under way at speed. Likely though that that speed of air movement means deck 6 is at its best when at anchor. Under way at 20 knots into a 20-knot head things would get a bit breezy. Top speed is, Dirk told me, 24 and up with cruising at 19 knots and a theoretical range of about 6,500 miles at 18.

The long forward shade overhang and large shell door openings aft make one wonder if the structure needed bracing in the area between the doors athwartships. Dirk considered it a risk so had the foundations added in build but held back until sea trial on making the decision as to whether the pillars would be

aforementioned wave breakers for'd of the fore deck. These, although Class mandated, do not appear to be necessary as no seas have yet made it that high or aft. Dirk reckons they are most likely to end up as quite efficient wind breaks for the passenger area for'd.

The yacht has both aft and forward pools. Originally the forward one was organically shaped but an owner preference for a pool in which one could swim against a water jet changed the shape. The aft one has rather clever construction and is baffling within to minimise

required; his instincts suggested they would not be and so it proved. Forward there are pillars but they are resiliently mounted (left), as there may be some anticipated hogging and sagging in this area.

The unusual shapes and cleanliness of line brings its own challenges. There is a strong training culture; crew are regularly sent for specialised training. The oddest may seem to be a course in climbing for deck crew; however, looking again at the areas to be washed down it does not seem so odd. Washdowns

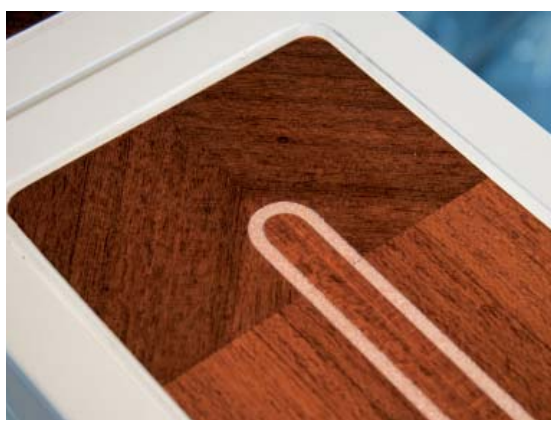
are inevitably both long, tiring and technical, often requiring abseiling and tying off to scrub. Bring on Lotus-effect self cleaning paints! Windows are automatically washed with demineralised water drawn from the 50 tonnes of technical water carried aboard. The full specs of the yacht are available as a Synfo extra.

You might expect something mechanical to be the unique aspect of *A*, but in fact perhaps the most innovative technique is in the most traditional of materials – teak. Dirk explained that Mike Kimble of Teak Solutions developed something special for the yacht. Wide and very long teak planks were needed; maybe even up to 23 metres in length; these are pretty nigh impossible to find. The normal answer would be to caulk athwartships then add another plank continuing till you reach the length required. However, on the lengths needed here that would simply be unacceptably ugly. Instead the ends of planks were machined into finger joints of great precision (page 62, top).

The planks were laid out on a ultra flat table. in the portable workshop that Mike set up alongside the building dry dock to do this. They were pressed together (using an advanced phenolic glue) and a 50-tonne force and were backed with a special fabric; groups of about five planks were pre caulked – full depth – then once dried were transported aboard and glued down using a vacuum bagging technique (no screws). We will look in to the broader use of this technique in detail in a future issue and also at Mike's controversial yet (for me) logical view on Burmese teak, forest management and embargoes.

Tender love

The yacht tenders are as special – albeit in 10-metre-long packages – as the 118-metre mothership. They are built on a proven hull platform of design by Patrick Benfield, Rodney Cull told me. Rodney worked previously with Dirk on *Rising Sun* and here he was responsible for overseeing the tender build and refining the usability and detail of them. There are two of these built by Vaudrey Miller in NZ as well as a high speed RIB from Pascoe. The Vaudrey Miller boats are in Limo and Open forms; the Limo is quite exceptional having a very unusual look and full standing room within (at least at 1.9 metres its good for me – Dirk doesn't quite fit). It's air conditioned and equipped with head, an iPod entertainment system, fridges and much more. Despite a radical look they are well arranged for crew to operate and guests to enjoy. The deck is varnished teak and holly, but even here are details like non slip applied, but to the holly inlays only (pictured here).



The open is designed to be multi-purpose; despite a fast speedbo
boat or a dive tender. The neatness of the operational aspects is
will likely never be noticed by guests but will be loved by crew (se
from an engineering viewpoint. Motors are common to all three;
outdrives reducing the spares burden. All have fresh-water systen
water and 500 litres of fuel offering autonomy of about 470 miles
strops to protect the finish. The finish itself is very fine including a
despite, as Rodney told me, being horrendously difficult to apply.

A Conclusion

Thus the story of *A* is finally told. *A* is a yacht destined to attract outrageous amounts of attention that will likely gather a spectator fleet on entry and exit of each harbour to rival that of the *Maltese Falcon*. What does *A* mean for the superyacht industry? Philippe Starck commented: *"Every project must have legitimacy. There (are) some different ways to have legitimacy. First (one) good way…is to (realise) that every project is always the result of a human relation, a human affair. That means if you want beautiful children parents must be in love. If you want a beautiful project, the partners of the project must be in love. In love (here) means (to have) the same way of thinking (and) on the same lines. People who share the same vision about life, about philosophy, about the future, about evolution, about boats, about the sea, about the ecology and things like that."*

With a satisfied owner *A* will have achieved that legitimacy but she also legitimises adventurousness in designers and owners. Even for those who may hate the yacht's looks the fact that she exists is important. It is noteworthy that a particular size was never the aim (no 'mine's bigger' here); her length was developed from the space needed to achieve the desired function. Thereby she both affirms and negates the validity of the 100-metre plus yachts. *A* affirms it because the yachts works well and *A* looks good rather than big – *A* negates (or at least questions) the gigayacht because she shows the same legitimacy can be achieved with (of course different) parameters at any size.

Tork Buckley

**Photos: Tork Buckley, Martin Francis, Jean-Baptiste Mondino, Gu
Superyachtart's Justin Ratcliffe; rendering courtesy of Philippe S**

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