

Martin Francis,
right, created this
art installation on
display in a field
in his native U.K.



ON THE "A" LIST

Martin Francis



The new superyacht *A*, featured on the cover of our July issue, made quite a splash when it was unveiled, but the hull itself is said to hardly make a wake thanks to a very innovative design that Martin Francis, as technical and naval designer on the project once known as SF99, helped turn into reality. As unusual as this project may be this is not Martin's first venture outside of the boundaries of traditional yacht design. In fact, Martin's creative world hardly seems to have boundaries at all.

Interview Grace Trofa
Photos courtesy Francis Design



Francis' experience with glass is evident in his yacht design, including *Eco* top left

MARTIN FRANCIS MAY BE KNOWN

in this industry as a yacht designer, but this label does not adequately describe the creator whose background reveals quite a range from art to engineering. He likes to say that he got into boating by chance and has no formal training in boat design, which he finds to be an advantage as it allows him to approach any problem as a pure design problem.

Born and raised in the U.K., Francis joined at a young age the prestigious Central St. Martins College of Art and Design in London where he earned a degree in furniture design. He learned to build things with his own hands. He worked for 20 years with architect Lord Norman Foster, and his association with engineer Peter Rice resulted in the creation of RFR, an engineering firm whose early landmark work was the development of cable-braced glass walls, which were used for the first time for La Villette science museum in Paris. Acting as a consultant on Le Louvre museum pyramid project, Martin suggested using rod rigging systems used on boats to support the glass pyramid that architect I.M. Pei created as part of the museum expansion. Martin became labeled as "the glass man."

Indeed, as a creative person, Francis enjoys working in many disciplines other than yacht design where he has made his mark with such well-known projects as the 240' *Eco* (subsequently named *Katana* now *Enigma*). He made a brief incursion into the rock and roll world in the 1970s, working as an assistant manager on the Rolling Stones European tour. He has designed for the last 10 years all the inflatable structures used on the Tour de France bicycle race, including the finish line and the podium. For more than 10 years, he has worked with American artist Frank Stella on art installations, and this year Francis did his first independent installation, a design incorporating 100 fishing poles, on display in a field outside of London. Francis works on his artistic vision from his European bases in London, where he has a studio and a loft, and in France where he lives part of the year in the hilly back-country near Cannes. Martin Francis allowed *Yachts International* to gain some insight into his work.



Concepts
Sultan,
right, and
Crystal Ball
have yet to
be built

YI: Your work touches so many areas; what is the driving force behind your design?

MF: In my opinion, design is universal. I am equally happy designing sailboats, power yachts or buildings; I adore my work with Frank Stella. Good design is a product of good clients and good collaboration. I don't think it really matters what the object is as long as it is honest to what you set out to achieve.

YI: How did you become involved in the yachting world?

MF: During the major economic recession of the 1970s, I left London and moved to the south of France where I became involved in the boat business, building masts for round-the-world racing sailboats. It wasn't long before I got this idea that I wanted a boat of my own, and when I couldn't find one that was suitable, I decided to design one myself. On the strength of that one boat, I eventually received commissions to design about 15 sailboats between 55' and 92'; that was the beginning of my career.

YI: That seems a far cry from your projects these days, specifically project A, which is a 390' yacht...

MF: You know, everyone remarks you can't tell the scale of this vessel

because of its simplicity and shape; I mean it looks more like a 250' or 260' vessel. I think this is very important. It is discreet, not in your face; well, maybe it is a bit "in your face" because it is a very radical design, but it doesn't require a fancy paint job or extravagant gestures to be impressive. Basically it is a very seductive boat.

YI: You worked with Philippe Starck on this project; how did this collaboration come about?

MF: Originally our firm had put something forward, but the client asked Starck, who was designing an apartment for him, to come up with a concept; the client went with that concept and asked Starck if he could work with me. We first met seven years ago to discuss the project. Starck was the project's concept and art designer and I was the technical and naval designer.

YI: What was it like to work on this project?

MF: It was great because the client didn't feel he had to follow the trend. He was prepared to break the mold and went the extra mile to allow for the research and development that would ensure he had a highly efficient boat. The way the owners and their guests live on the boat there again is totally radical: beds on turntables and a floor that revolves, but I can't get much into this— that's Starck's domain not mine.

WE CAN'T GO ON MAKING VESSELS AS INEFFICIENT AS THEY WERE SO QUESTIONS OF FUEL BURN, WIND POWER AND SOLAR POWER ARE THINGS THAT INSPIRE ME

YI: What were some of this project's innovative aspects?

MF: The way we developed it, for one. We made this hull model, which we now have hanging up in our studio, and did resistance tests. We then made it self-propelled and drove it around the Solent Estuary in the washes from the ferries. The performance of the hull proved remarkable. We were worried it might have problems in directional stability, pitching forward of the bow, but it had none of those characteristics. Also, typically, shipyards do hull designs for these big yachts, but we did all the tank testing before it went out to bid. The shipyard had all that information before they started the development work.

YI: What was the concept behind the hull shape and the yacht overall?

MF: Our major emphasis was to make an efficient hull shape: maximum speed with minimum power. We all agreed, the owner, Starck and I, that a vessel that looked like that, well, you couldn't have it go 16 knots. The full speed is 23 knots and the cruising speed is 19.5 knots. The hull we developed turned out to be remarkably efficient. Having this long bulbous bow with a very fine entry, it is quite remarkable in terms of its low wave making: just a whisper of spray, no bow wave; it really is a joy to see it... There are really three aspects that distinguish the yacht: its hull, the superstructure position and the bow shape. The yacht has a reverse bow, but you could actually achieve most of the hull design features with a plumb bow. The superstructure is aft, but you could do other forms of superstructure

on that hull design. I don't think anyone else will build a boat like that because it is totally unique.

YI: What is the advantage of A's hull design?

MF: Sea keeping. The reports from the initial sea trials, in extremely bad weather, were that there was relatively low ship motion. The crew was very experienced and they were terribly impressed with how little the vessel moved in sea waves.

YI: How was working with Starck?

MF: I didn't know Starck before this project and to work with him was a real pleasure. We actually were on the same wave length. He and his team were the consummate professionals.

YI: Who do you admire in the industry?

MF: Starck is one of them and Bassani is doing wonderful things with Wally; they are people who have moved things along, which is fantastic.

YI: Is there someone you would like to work with?

MF: I would like very much to do a project with Bassani.

YI: How does your studio operate?

MF: It is small; our team consists of me, my personal assistant and three other key people. One is a real naval architect. When we design a hull, I



Yacht A formerly known as project SF99



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©Guillaume Plisson

A MAIN SPECIFICATIONS

L.O.A.: 390' 3"

L.W.L.: 388' 3"

Beam: 61' 8"

Draft: 16' 8"

Gross tonnage: approx. 6062 tons

Accommodations: 14 guests

(1 owner, 6 guests suites)

Crew: 37 + 5 staff

Year built: 2008

Buider: Blohm + Voss Shipyards GmbH

(ThyssenKrupp Marine Systems),

Hamburg, Germany

Chief concept and art designer: Philippe Starck

Technical and naval designer: Martin Francis

Construction: Welded steel

Classification: Lloyds Register

of shipping ✕ 100 A1 SSC Yacht (P)

Mono G6 ✕ LMC UMS PSMR EP SCM

Main engines: 2 x MAN RK280

producing 12,070 hp at 1000rpm

Gear boxes: 2 x RENK ASL 185

Shafts and propellers: 2 propeller

shafts driving 2 five-bladed VATech high skew

controllable pitch 3.60m diameter propellers

Cruising speed: 19.5 knots

Full speed: 23 knots

Range (full speed/cruising speed):

approx 4250 nm and 8 days

6500 nm and 15.5 days

Generators: 3 x 440v, 960 kw 8 cylinder

Caterpillar 3508B diesel generators

Fuel oil: 200,000 U.S. Gal.

Fresh water: 924,800 U.S. Gal.

Steering system: 2 x Rolls Royce

SR722-FCP rotary vane units

Bow thruster: 2 x 330kw Brunvoll

FU-45-LRA-1375 lateral thrusters

Stabilizers: 4 x Quantum zero speed stabilizers

Tenders: 1 x 36' covered tender

powered by 2 x Yanmar 6LP-STZP2

1 x 36' pen tender powered

by 2 x Yanmar 6LP-STZP2

1 x 33' Pascoe SY10 powered

by 2 x Yanmar 6LP-STZP2

2 x rescue 19' 6" Pascoe tenders

www.l-xxxlyachts.com



The Francis Design studio in London

www.francisdesign.com

handle the creative and he verifies and fills in the numbers, the technical information. We have someone who does space planning and organization and another person who looks after the external shaping and modeling. We cover everything with those basic skills and we use other people as needed. My team has ranged from three to 15, but this is a comfortable size, with five people as the nucleus.

YI: What is your approach to design?

MF: Unlike other people in architecture, I actually manipulate most of the stuff myself. I work in 3D CAD programs; that's my sketchbook. I do a lot of the renderings and certainly do a lot of the 3D modeling myself so that I can get the shape and the detail I want. Instead of just leading the design team and telling them what to do, I like to be involved in the design process myself.

YI: How does your firm differ from others?

MF: I think I am more hands on and my background in engineering and architecture helps. Because I work also in other disciplines, it gives me the ability to constantly cross reference. The Louvre pyramid problem I solved by using boat rigging. There is that constant cross fertilization from my experience in other areas.

YI: What is it about you that makes you want to push the boundaries?

MF: We are very fortunate to be working in this field. If a client comes to you and wants you to design a boat on which he is going to spend vast amounts of money, I think just to redo what has been done before is a cop-out. We can't go on making vessels as inefficient as they were so questions of fuel burn, wind power and solar power are things that inspire me. Regurgitating what has been done before may be cost effective but it's boring.

YI: I have read that *Eco* remains your favorite?

MF: It has been for a long time. It has a special place in my heart because it was my first motoryacht; the owner was a very special man. I adored and admired him because he supported us in a most amazing way and funded so much research.

YI: What were *Eco's* most challenging features?

MF: The most radical thing we did happened because the owner wanted to use water jets he liked because of low vibration, and because we wanted speed. But we had the problem of drag from the transom; the water jets were very big, which meant the transom was deeply immersed in the

water. We came up with the idea of using hydrofoil to stop the stern from sinking. After we went through 11 permutations in the test tank, we added the hydrofoil and at 20 knots we had an unheard of increase in performance of 20 percent. That hydrofoil to my amazement has never been copied although we did have it published.

YI: What can you tell us about your *Crystal Ball* design?

MF: It was like the idea of a concept car in the auto industry. We wanted to test market reaction and demonstrate technology on a confidential 492' project we were doing with Blohm & Voss. I've had this idea for some time of making a whole superstructure out of glass. It is an impervious, inalterable material that is easy to clean, looks great and is definitely cost effective. We designed it in such a way that rather than having to circulate inside the boat in dark corridors, you can circulate around the outside. The hull is inspired by aircraft carriers; the bow has a wider shape than usual, and we incorporated an enormous beach club area. The model got a lot of attention at the Monaco Boat Show and as a result we are talking with a client, but the project will not be as radical.

YI: Do you have a yacht project on your wish list?

MF: Yes, *Sultan*. It is probably the most beautiful project we have ever drawn; it is a bigger and much better version of *Eco*, with a 413' length and curved windows; the design is very architectural. It just has a staggering quality of life about it; it seamlessly flows from inside to outside. The top deck is the owner's private office and recreation area; the next deck is a private cabin and private entertaining area; the wheel house and guest accommodations are on the main deck and all the crew accommodations are in the hull. In the aft there is an enormous beach club with a glass bottom swimming pool. It has twin gas turbines and potentially we can make it go up to 35 knots. We originally drew it for a Turkish client who developed financial woes so the project didn't move forward, although many people think it exists. *Sultan* is something I would really like to do, it is an amazing project.

YI: Do you think the current industry trend to build larger and larger will continue?

MF: No; I think there will be a dip. I think it is significant that a lot of well-known names are building smaller yachts. I think 260' to 270' will be the size that well-informed clients will choose because it is big enough to do everything they need. Most people don't have 25 guests that they can bear to be with for a week or longer.

YI: How do you see the future of yacht design?

MF: It has to be more environmentally aware and it has to be more energy efficient, the two things go hand in hand and that will drive a new generation of yacht design. People will begin to accept that speed is not as important as quality of life aboard, and you will begin to see some very nice, large and inexpensive yachts that just happen to go slower. At the moment filling up the gas tank of a 427' yacht cost about \$750,000; that makes it really worthwhile to do a little more R & D.