YACHTING REDEFINED

Hermès we know to be a maker of beautiful and traditional luxury items in leather or silk, while Wally has made its reputation as a builder of very modern fast sailing yachts and powerboats. How could they possibly work together and how could they consider building a slow cruising yacht with a strange shape and an appearance that is akin to a squashed deck shoe?

I think the answer lies in the response that Luca Bassani made to the suggestion that they should cooperate on the design of a yacht. In effect it was 'Been there! Done that!' So, if there was to be something new it would have to be really different. At the same time, I felt a subtle hint when talking to Pierre-Alexis Dumas that Hermès was ready to continue its exploration of new opportunities.

'A new way of living on the sea' is a bold claim and also a seductive one, which conjures up a picture of life at one of those lovely beach-side villas that nestle along the shoreline of Cap Ferrat, but one that is mysteriously able to move to other delightful locations. Of course, some difficulties can be foreseen. The *WHY* yacht will not fit into a normal marina berth and with a 38 metre beam will hardly be welcome on the T-jetty at Monaco, so this eliminates the customer whose idea of a yachting holiday is to rise at noon and totter to the nearest restaurant. We can also forget the yachtsman who is not happy at any speed below 40 knots (except that he can always do this in his Wally Tender).

What gives me hope is that this project has not been thought up by a bunch of dreamers. From top to bottom the small team involved consists of experienced professional people such as naval architects, engineers, interior and product designers. In fact, it is not they who have to make a great leap of imagination but the potential customers. So the next most important person in the story is the one who will look at the design, walk around the mock-up, understand what it is trying to achieve and say 'WHY NOT?'

The story began with a meeting at the 2007 Monaco Yacht Show between Luca Bassani Antivari of Wally and Pierre-Alexis Dumas, artistic director of Hermès, which led to a joint venture between these companies that is aiming to create a totally new approach to cruising in motor yachts. Two years later, design work is progressing at full speed and a 1:1 scale mock-up is being constructed as a crucial design tool.

'I must admit,' says Luca Bassani, 'that in the first instance I was thinking about a Wally yacht with some kind of Hermès influence on the design, but after speaking with Pierre-Alexis I realised this was totally inadequate. We soon agreed that we needed a real partnership and that the plan was to create something that does not exist now. In effect, "A new way of living on the sea".'

words: David Pelly

With the sliding roof closed, WHY has an enigmatic appearance, revealing little of the layout. In this view, the enormous size of the beach deck is apparent. Other than the pilothouse there is no real 'superstructure' as everything is contained within the hull

WHEN SOMEONE PROPOSES A COMPLETELY NEW AND DIFFERENT IDEA, IT IS SOMETIMES HARD TO KNOW WHETHER TO SHOUT 'HURRAH!' OR WONDER IF THEY HAVE TAKEN LEAVE OF THEIR SENSES. ON THE FACE OF IT, HERMÈS AND WALLY DO SEEM SURPRISING PARTNERS AND THEIR FIRST PRODUCT AN EXTREMELY UNUSUAL BOAT

Such an audacious idea might seem surprising for a company such as Hermès, which appears to be a very traditional maker of luxury goods. 'In fact,' says Pierre-Alexis Dumas, 'the company has continued to prosper for six generations and 172 years by making bold decisions. The tradition of the company is that each generation must plant seeds that will come to fruition in the next. We have always needed to find exceptional pieces to give a signature to the brand and we recognise that leather and silk alone cannot do this. At the same time we have always understood the relationship between form and function as the company began as a maker of harness for horses.'

'I do have some sailing experience so I began by discussing sailing boats but Luca said "I have already done this so we need to find something different." We began to think about a motor yacht that would be spacious, stable and calm – almost like a floating island. Speed and power would not be important.'

Since both Wally sailing yachts and powerboats are based on high performance, it was quite a wrench for Bassani to start thinking about a boat that would be relatively slow. 'At the beginning it was hard to think about a slow boat,' he says, 'but I realised that with this concept we don't need to go fast. In this case, performance means something different like comfort, privacy, stability, space, independence. How can this kind of vessel be used? I see much more than a yacht to be used for a couple of weeks and I think some people might really live aboard all the time. It could be a floating house that moves when you need.'

'We are very interested in creating something that will have a low environmental impact,' says Dumas. 'We don't need powerful engines and we plan to use solar panels to generate electricity and perhaps a type of "sky sail" to reduce fuel consumption under way. The relationship with the sea must be gentle and comfortable for the passengers. We need to be leaders of the superyacht market in this way.

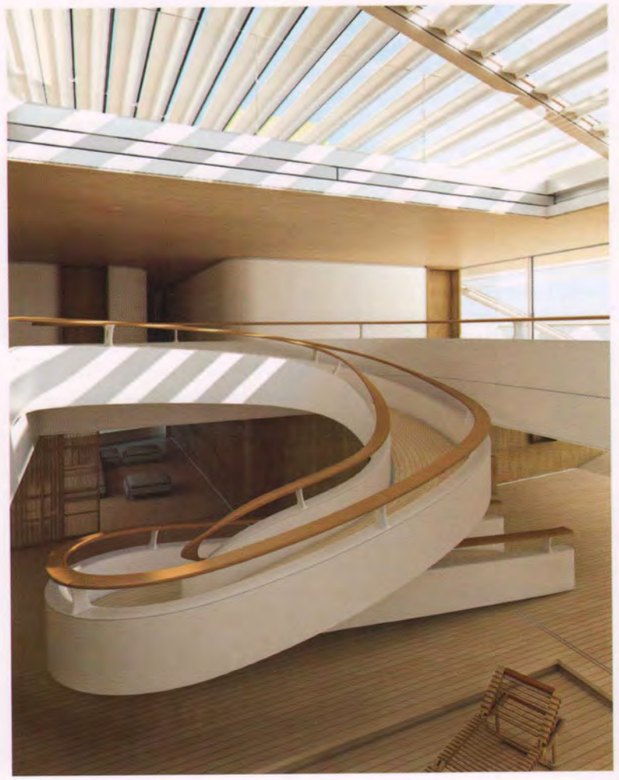
The look of the yacht will be very unfamiliar but the people we have shown it to so far are intrigued – even quite impressed! We have kept to a human scale and there is nothing monumental about the design. It is well understood that space is the greatest luxury afloat but I think that the new luxury will be time to enjoy it.'

Bassani agrees that initially people will be shocked by the appearance 'But I am used to being shocked! In this case I hope that the functionality of the design will show through. Although the concept is new to yachting, the hull design has been in commercial use for 25 years and is much safer and more stable than typical yachts so in that sense it is quite a low-risk project. It is equally suitable for private or charter use and could move around the oceans economically on its own bottom. We could build the first example in three years.'

Pierre-Alexis Dumas emphasises that it is not possible to attribute any part of the design to Hermès or to Wally. 'This is a real joint venture,' he says. 'We have formed a team and they are designing the boat. We call it *WHY*. That means Wally Hermès Yacht!'

TONI MENEGUZZO (BASSANI); ROBERTO FRANKENBERG (DUMAS AND PEZZINI)

Luca Bassani, Pierre-Alexis Dumas and Gabriele Pezzini



LIVING ON THE SEA

What we are looking at here is a hull that is almost triangular in plan with maximum beam at the stern. There are four decks including the lowest which includes the technical spaces and crew quarters. From the top, the first deck comprises the owner's suite and bridge, the next one provides the guest accommodation while the main deck provides the public spaces and the enormous 'beach deck'. In effect, there is no superstructure apart from the raised pilothouse so the vessel looks low although the hull has a lot of freeboard.

The two upper decks include aft terraces which can be open to the sky when large sliding roofs are rolled back like an enormous coupé. These sliding covers are a crucial feature of the design and the one that will be hardest to engineer as they are curved and made up from a series of linked sections that rotate so that they act like the plastic strips in a Venetian blind. It is also planned to fit photovoltaic panels on them and these will require electric wiring. The terraces look marvellous with the roof open but a little strange fully closed, when headroom will become restricted at the aft side of the terrace.

Boat International speaks to Denis Montel

Denis Montel, artistic director of the RDAI Agency is responsible for the interior design and it is interesting that he sees it as developing away from a marine interior rather than towards one. To understand the concept we have to accept that it really is supposed to seem like a house on the sea.

BRUNO CLERGUE

This was the first time I have worked on a boat and when we saw the shape of the hull I must say we were quite frightened by the size of it! So the first thing was to understand the scale. Then we had the idea to catch as much light as possible. To allow more light to come in from above we planned to install three patios or internal courtyards by using the unique covering which opens and closes like a 'Venetian blind'. This also provides a surface that can be covered with photovoltaic panels to generate electricity. Next, we increased to the maximum the number of windows in the hull to let in more light from the side.

The interior will be simple but not 'minimalist' in style. We will use light-coloured surface materials like paper or shot-blasted oak in the cabins and also some leather panels. Originally we thought about using a mixture of strong colours but decided instead on very light colours such as off-white and beige and the same palette will be used for the outside of the hull. Actually, we want above all to express simplicity and comfort.

Our deck furniture will be heavy and strong while the interior furniture will have the same overall look but lighter. The decks will be wood but we are hoping to avoid using teak. We are working with a French company that is currently testing a kind of 'thermo-modified' wood that we hope that will be durable and more sustainable than teak.

Wide open spaces with patios to allow light to flood in from above characterise the interior. The sweeping walkway between the middle and main decks is a striking architectural feature and space has even been allowed for a tree

There will be no sharp edges or corners anywhere – both for safety and appearance. Individual pieces of furniture might have a rectangular form but all will be a little bit rounded and smooth which will feel more sympathetic. The layout is not exactly symmetrical, which we hope will avoid an impression of rigidity and create a more fluid space.

When we began the design work it was perfectly clear that we were working on a ship but as we understood better how extremely stable it will be, it has evolved and become more like a house on the water – almost an island – and this has been an extremely interesting experience. Hermès has never designed a yacht before but because this one is so completely different we are hoping that it can have a distinctively Hermès influence.

WHY
WALLY HERMÈS YACHTS

Boat International speaks to Gabriele Pezzini

The interior, with its large open spaces and sweeping connecting walkways is totally unlike that of any other yacht and has more of the atmosphere of a spacious seaside villa. We asked the design director of Hermès, Gabriele Pezzini, to explain the basic architecture.

'Following the initial brief from Luca Bassani and Pierre-Alexis Dumas, I began to develop the concept. From the outset we considered the outside and inside as parts of the same idea. The starting-point for the whole design was the quality of life for the people on board and this led us towards the shape and the main features. Then Luca discovered the Ramform which exactly fitted what we had already imagined and enabled us to move forward quickly to the next stage of development. We then set to work with Mauro Sculli to see how to make the best use of the space available.

What we noticed is that when people visit a seaside restaurant, everyone wants a table on the terrace and they also want to be on the beach. So we have to create a yacht with these features: terraces with open skies offering both light and shade, spacious and comfortable rooms with a simple design, a very spacious 'beach deck'. We want to create open space with the sea close to us, not far below. With this hull, we have a lot of space to work with!

There are three main levels:

- The owner's apartment which is more-or-less private
- The guest deck with four or six suites and also some public areas such as a library
- The main deck comprising an area of about 1,300 square metres with a lot of open space including what we call 'the beach', where you can get close to the sea

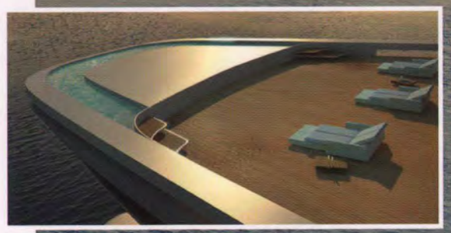
Hidden in the bow there is a garage with tenders and sports equipment. The tender is quite big – maybe a Wally Tender 45 – because we know this yacht will not normally enter marinas. Inside, all the rooms will be large and comfortable.

With its 38 metre beam this boat will look pretty surprising at first, but the interesting thing is that after working on it for some time, normal motor yachts have begun to look strange to us. In the end, we think this will be recognised as the best solution. As with sculpture, it is the proportions that create beauty and we are having to find new ways to manage new proportions. We are looking for something that does not date and has the right shape in relation to the concept. If we start from function we can create a new aesthetic because function has a long life whereas shape has a short one.

The hull's appearance is affected by the large number of flat glass windows, placed at slightly different angles, which cover up to 20 per cent of the surface. The remainder will be faired.

We think a lot about sustainability and respect for the environment. With such a huge deck area we were immediately confronted with the question of whether to cover it in the traditional way with teak. As this is not at all friendly to tropical forests we are actively looking for alternative deck surfaces, both timber and synthetic.

The interior style will be simple with some variety of materials and surfaces, but instead of precious woods, natural materials such as textiles and bamboo are much more likely to be used. That's because we think that real luxury is space and quality of life.'



The foredeck lido features a curved swimming pool 25 metres in length incorporating the touch-and-go helipad. The tender garage is concealed below this

... it has evolved to become more like a house on the water – almost an island – and this has been an extremely interesting experience

LOA	BEAM (max)
58m	38m
OWNERS AND GUESTS 12	SWIMMING POOL thermo-regulated water 25 m
CREW 20	HELIPAD
TOTAL GUEST SURFACE AREA 3,400m²	TENDER CAPACITY 14m max
COVERED GUEST SURFACE AREA 1,100m²	PERFORMANCE Speed (max/cruising) 14 knots/12 knots
SERVICE SURFACE AREA 500m²	CONSTANT CRUISING SPEED up to Sea 4
PROMENADE ON DECK 130 m long x 3 m wide	

DISPLACEMENT
2,400 tonnes

RANGE
4 Atlantic crossings

STABILITY
assured without stabilisers

LIGHT SOURCES
3 x Patios with skylights;
300m² windows surface area;
Ultra-low consumption
LED lighting system

STANDARD ENERGY
Diesel-electric propulsion

GREEN ENERGY
SkySails® auxiliary propulsion system;
900m² thermo photovoltaic panels;
Heating and air-conditioning by thermo photovoltaic panels;
Latest-generation batteries (LiFePO4) 2,000kWh (stored energy)
150kW average power available in renewable energy;
500kWh/day renewable energy production;
1,500kWh/day lost thermal energy recovered;
450,000kWh annual energy production;
160,000 hours annual equivalent fuel savings;
8-10 hours energy autonomy for auxiliary services at anchor

COMPUTERISED ENERGY MANAGEMENT SYSTEM

OPTIONAL GREEN ENERGY
Fuel cells;
43 800 kWh/year Savonius® wind generators;
Thermo-electric energy

ENVIRONMENTAL IMPACT
Bilge water separator;
Waste water separator;
Rainwater collection system;
Low impact anti-fouling paint;
Rubbish separator, compactor and grinder

DESIGN AND DEVELOPMENT
WHY Design Team

Pierre-Alexis Dumas
artistic director, Hermès

Luca Bassani Antivari
president and CEO, Wally

Gabriele Pezzini
design director, Hermès

Mauro Sculli
Naval architect

Roar Ramde
Naval engineering

Denis Montel, RDAI
Interior architecture

WHY

Roar Ramde, is the originator and naval architect of Ramform

'Apparently The Almighty was the first naval architect because in the Book of Genesis it is recorded that he ordered Noah to build the ark 300 cubits long and 50 cubits wide and ever since shipbuilders have stuck to a length-to-beam ratio of approximately 6:1. In my career as a naval architect I have seen hundreds of hull designs and always wondered why they were so similar – like logs lying in the water, always fighting for stability. So I wondered what I could do differently and thought about a sharp bow to cut through the waves and a wide stern for stability.

That became the Ramform design and the first one was a small ship of 27 metres built in 1985 for repairing undersea cables in the Norwegian skerries. It is still working today. A 75 metre ship was then built, which is used for security duties in the Barents Sea. Stationed there for the past 15 years it comes in just once a month for supplies and crew change.

The biggest user of the Ramform today is the seismic survey company PGS that liked the wide stern because it gives them tremendous space for equipment and for towing long lines of instruments. They built the eight ships they wanted and recently completed two bigger ones. I gave them an exclusive licence to use the design for this purpose and it has given them a tremendous commercial advantage because they have 60 per cent of the market in which they operate. Their two most recent ships are 100 metres in length overall with 40 metre beam, and 16,000 tonnes displacement. They have diesel/electric propulsion of 13mW with three azipods because they are towing 8 kilometres of cable astern.

They are built using conventional steel construction. They can carry a huge load but it is absolutely necessary to have trim tanks to keep the stern at the right level.

When we do something like this that is totally different, it is regarded as "Going against the grain". It can take 100 years to change people's opinion of how a ship should look so maybe independent rich people who are not responsible to a company or government are the most willing to try something new. I hope that someone will be willing to try it and find out that it is really the shape of the future.'

Boat International meets Captain Solheim

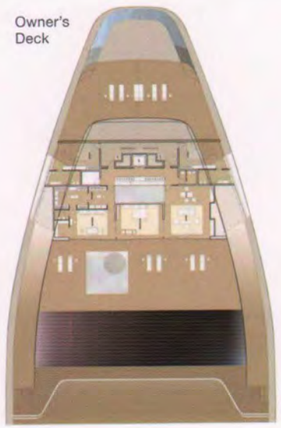
If anyone should be worried about the seaworthiness of the Ramform design they should speak to Captain Odd Solheim, whose company Wilhelmsen Ship Management runs the fleet of Ramform survey ships belonging to PGS. I travelled to Norway to meet Captain Solheim who has worked on three of these ships since 1997 and is currently master of the 100 metre PGS Vanguard, a vessel that occupies a place of honour on the 'Ugly Ships' website. This is what he told me:

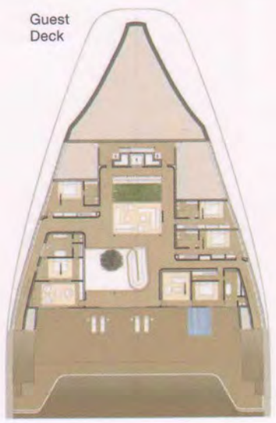
'No-one else in the seismic industry can do what we do with the Ramform ships. We tow cables 8 kilometres long, held apart by hydroplanes so they cover an area 1.5 kilometres wide.' He draws a little diagram in my notebook to show this astonishing arrangement.

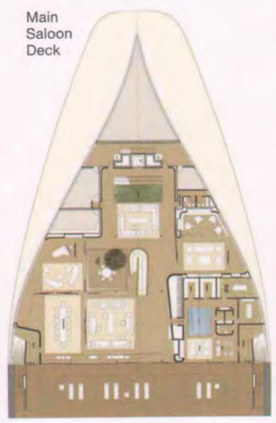
'The ships are working on contracts that run for 365 days a year. We can supply them at sea and change the crew by helicopter. They just come into harbour for refit and sometimes they stay out for four or five months at a time. So, obviously, they work in all weather. We have had Force 12 in the North Sea and have worked in seas up to 5 metres. At transit speed – over 10 knots – the ships handle extremely well. If you have to stop, the motion becomes more uncomfortable. With seas of 2 to 3 metres you would not feel anything. Running downwind she does not broach or veer from side to side because there is no rolling due to the much higher than normal stability. The motion at sea is not quite the usual one but you get used to it very easily. There is no problem anchoring although sometimes the ship can swing a bit. Our ship is much bigger than the yacht and parking this big thing can be a challenge! I suggest they fit remote control to the yacht so the captain can stand at the side for berthing which makes it much easier.'

'The biggest advantage is the room it gives and also the stability. I do a one-hour walk around the deck every day!

Speaking to Captain Solheim makes the idea of a 'floating home at sea' seem a practical one indeed.







Testing underway at the SSPA wave tank in Sweden (inset, naval architect Roar Ramde) Small picture: The Ramform survey ships are strange-looking but very efficient and dominate their market

TONI MENEGUZZO

TANK TESTING

Extensive tank-testing has been undertaken at the SSPA facility in Goteborg, Sweden and is continuing. The first series was in the towing tank to establish resistance and stability in transverse waves. Even more interesting were the results from the Maritime Dynamic Laboratory, which can create waves from two different directions to simulate a typical choppy sea. In these tests a model of the *WHY* yacht was compared with a conventional motor yacht of about 100 metres in the 'at anchor' situation. From these it was concluded that the Ramform hull has a slightly increased pitching tendency (by a factor less than 1.4) but much less rolling tendency (by a factor of about 33 per cent) compared to the conventional yacht. A further series of tests with self-propelled models is planned.

TECHNICAL: THE SCIENCE

The two naval architects Mauro Sculli and Roar Ramde make an interesting contrast. Mauro who has worked on high-speed, high-tech projects for Wally is quick-thinking and quick-talking, constantly rushing ahead to confront the next technical problem. The white-haired Roar, avuncular in comparison, seems to view this bunch of rather intense French and Italian technocrats with a kind of quiet amusement. At the same time he is very protective of 'his' design and apparently pleased with the idea that after the rather narrow focus of the seismic survey fleet the Ramform might break into the superyacht world.

As a commercial vessel, the Ramform already exists and is operating very successfully so Ramde does not need to convince us that it works on a technical level. Sculli, on the other hand faces a big challenge in making it a successful yacht. The appearance will certainly take some getting used to but the *WHY* team have also given themselves some major tasks such as the sliding roof and the 'low environmental impact' features. The crew cabins are placed low in the hull with the living area on the guest deck level and the tender launching system is currently being developed. Other practical features still to be finalised include the anchoring system, which could be a standard one or a drop-out type. A retractable mast will carry the SkySails launching system as well as navigation lights while the aerials and satellite domes will be in a large dome above the wheelhouse. The U-shaped swimming pool placed right forward seems eccentric but at least you can have a real swim as it is 25 metres in length, with a 360-degree view. In comparison the propulsion system with generators in the engine room and electric motors driving conventional propellers aft, seems quite straightforward.

Perhaps the hardest thing to imagine is how it will actually feel to be on board one of these vessels. Captain Solheim says it is easy to get used to the motion but he is a professional seaman who spends half his life afloat. As Pierre-Alexis Dumas says, 'In any architectural project, nothing really prepares you for the reality.'

This is how Mauro Sculli describes the technical side of the project.

'When we began this project we looked at a lot of beamy hulls including catamarans and SWATH designs but none were quite what we were looking for until one day when Luca Bassani called me up in great excitement and said "I have seen our hull in a technical magazine and it is called Ramform." It was like nothing I had seen before; an extremely beamy single hull with a huge amount of deck space.

I went to Oslo to meet the naval architect Roar Ramde who explained that he has a patented hull design that is licensed for use by a seismic survey company. There never has been a Ramform yacht so he was very interested to reach an agreement with us to extend the use of this design and today we are working together very happily.

The basis of the design is a sharp bow that blends into a tremendously beamy stern via a clever underwater shape. It can never be fast but is efficient at low speed. Our design, which is 58 metres long and 38 metres wide will have a top speed around 14 knots and will cruise economically at 12 knots. The advantage is tremendous volume and high stability without the need for any kind of active stabilising system. For instance, our 58 metre *WHY* design will have approximately the same volume and displacement as a moderately beamy motor yacht of 90 metres overall length.

Starting with the basic Ramform design, we have modified the bow and forward chine somewhat but the underwater shape is unchanged.

A new language of shapes and proportions needs to be worked out and this is the first task of the mock-up

TONI MENEGUZZO

Mauro Sculli

It does not need any stabilising fins or passive system but there will be longitudinal trim tanks. At first we thought of using the same propulsion as the commercial vessels, which have diesel-electric motors with azipod thrusters, but we have changed to conventional props because we will have plenty of turning force with props 20 metres apart. We plan to have four generators of about 700kW each in an engine room placed well forward in the hull and supplying two electric motors of 1,200kW.

We plan to install around 1,000 square metres of photovoltaic panels, mostly on the Venetian blind roof so that their angle to the sun can be adjusted, but this is to supply the domestic electric system, not for propulsion because a real 'solar boat' is not yet feasible. If you compare the energy consumption of a typical yacht and a villa of the same volume, the yacht uses 25 times more energy. If we could reduce this to around 10 times, it would be a tremendous improvement that could save up to 200 tonnes of diesel per year. As well as solar panels, we are looking at wind power and heat recovery from the engines. Meanwhile we are talking to the German company SkySails, which has already installed its kite system on several merchant ships and claims a reduction in fuel consumption of between 10 and 35 per cent in suitable wind conditions, which would be astonishing. We are also working with an R&D institute to investigate all the technologies available to reduce power consumption and environmental impact.

At low speed the hull is efficient and the wide stern is not a penalty while the economical speed of 12 knots is actually not a bad cruising speed. The draught will be 3.5 metres or even less and there will be two thick skegs to give a good water-flow to the propellers. The displacement will be 2,500 tonnes and there is plenty of space for tanks so an owner could have almost as much range as he wants.

The hull plating is a bit thicker than the minimum required by the register and this will reduce the amount of filler needed. We started doing tank tests early in 2009 to establish resistance and stability and so far have run into very few problems although there are obviously a lot of practical features to be sorted out. We are working with RINA to get technical approval for the *WHY* yacht. So far they are happy with it and they can always consult with DNV, which classed the existing commercial ships.'

WHY 1:1 MOCK UP

During 2009 a special team of boat-building craftsmen has been hard at work building a full-scale mock-up of WHY in a huge shed at Ancona. This is nothing to do with the hull design which is already established but to see how the living spaces work out in practice. With most yachts, the shape of the hull more-or-less guides the hand of the interior designer but WHY is more like an empty site on which you can build any kind of house. As Gabriele Pezzini points out, this means that a new language of shapes and proportions needs to be worked out and this is the first task of the mock-up. Later it can be used to try out different materials, surfaces, colours and lighting. As well as providing an invaluable tool for the designers, the mockup will be enormously helpful to potential customers (and even to journalists!) who will otherwise find it pretty hard to imagine how the vessel will look and feel in practice.