

BOAT

new section

Superyacht design

- technology
- interiors
- concepts
- construction



OCEAN TRAVELLER

Chasing the midnight sun in Norway

Exuma

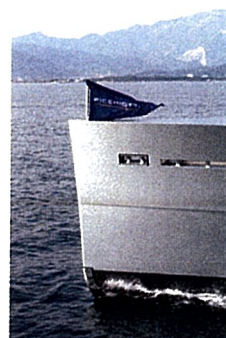
An explorer yacht, but not as you know it



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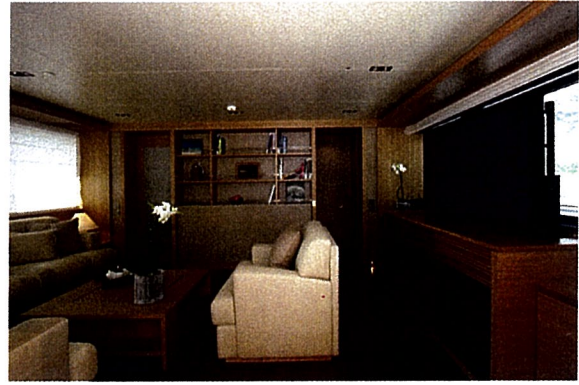
EXUMIA



words: Roger Lean-Vercoe
photography: Giuliano Sargentini; Michele Lombardo/
M1 Media; courtesy of Philippe Briand



WHEN AN EXPERIENCED OWNER TOOK A MOTOR BOAT DESIGN FROM A SAILBOAT MAESTRO AND THEN GAVE THE BUILD CONTRACT TO A YARD KNOWN FOR ITS SAILING SUPERYACHTS, HE KNEW IT WAS A GAMBLE. BUT THE RESULT, DESIGNED BY PHILIPPE BRIAND AND EXQUISITELY REALISED BY PERINI NAVI THROUGH ITS PICCHIOTTI YARD, IS NOTHING SHORT OF REVOLUTIONARY

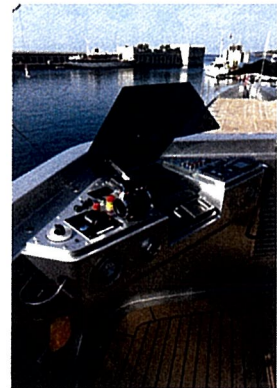


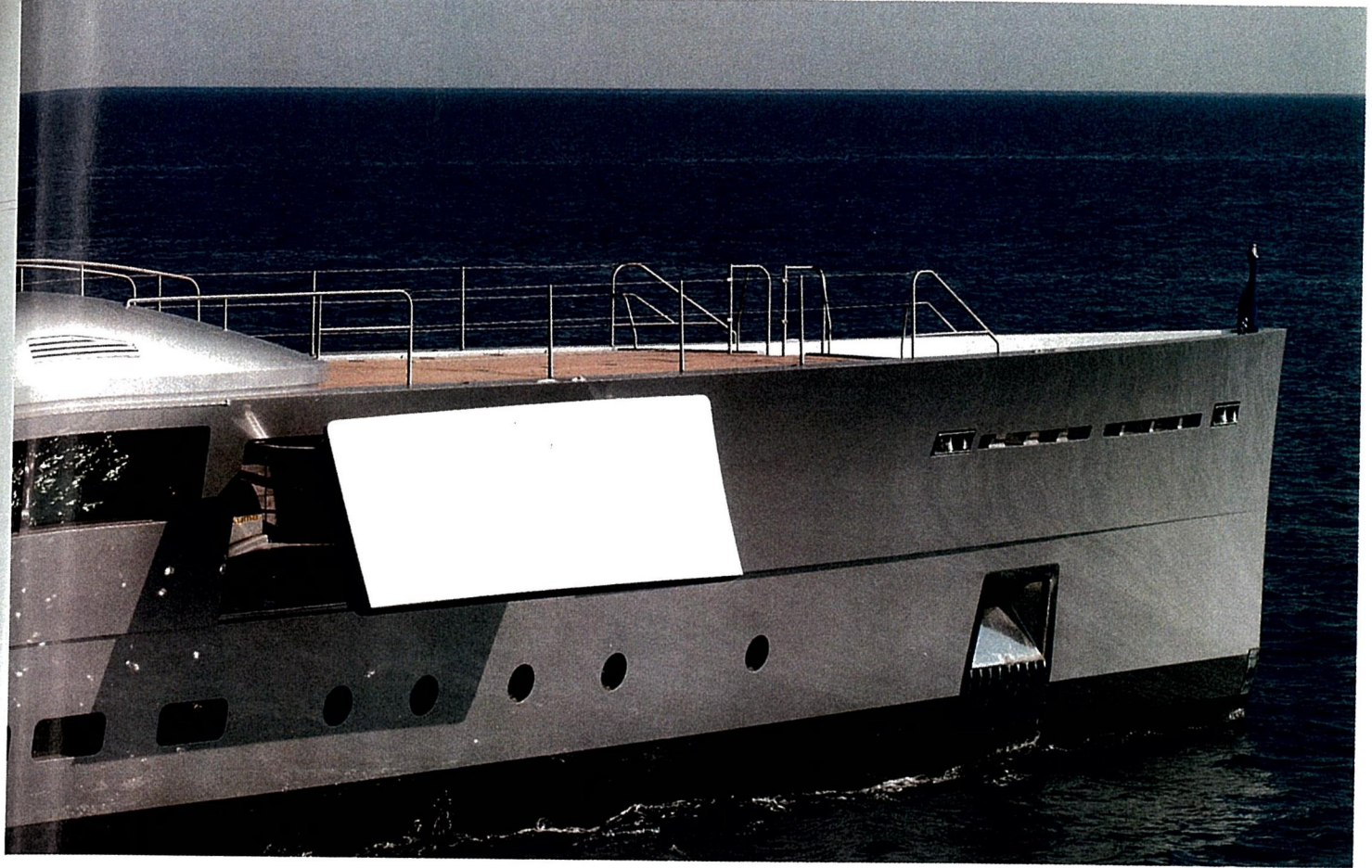
The cosy upper saloon leads out to the aft bridge deck, which offers a large spa pool and plenty of space for relaxing. There is a further sunbathing area on the main aft deck, along with an aft deck table for alfresco dining

Exuma was conceived at the Monaco Yacht Show when her now owner paused by an attractive yacht model being displayed by the French naval architect Philippe Briand. The model was of a newly developed motor yacht design that Briand had called *Vitruvius*, a name derived from the study of architectural proportions by the ancient Roman architect Vitruvius Pollio, whose work inspired the 'The Vitruvian Man' – Leonardo Da Vinci's renowned drawing that today symbolises 'ideal proportions'. This clear-thinking design was intended to pioneer a more sustainable balance between the elements that go into a superyacht, while recognising that an unspoilt environment is beneficial for all yacht owners.

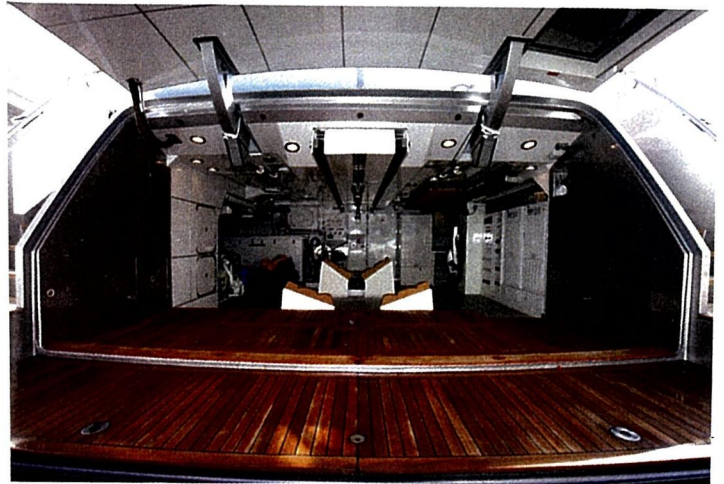
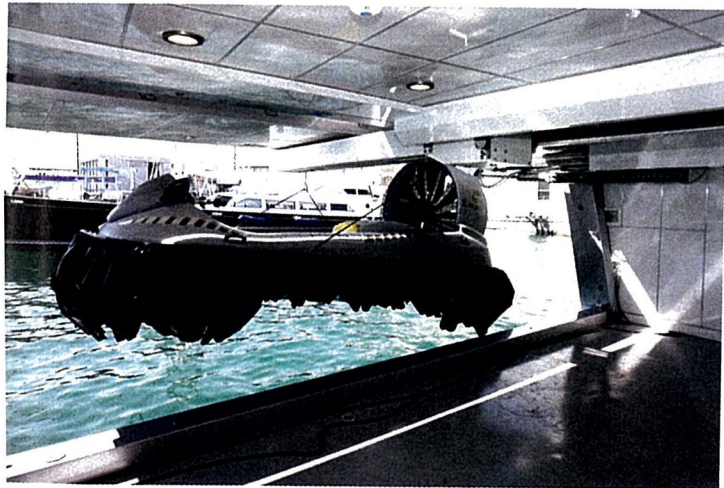
Better known as a designer of racing yachts and high performance sailing superyachts, such as *Mari-Cha III* and *IV*, *P2* and *Bristolian*, Briand had developed his *Vitruvius* concept with the keywords 'Further, Greener and Sleeker' in mind. Expanded, these core principles translate to: a robustly constructed, high efficiency hull form, with long range, excellent autonomy and exemplary seaworthiness. The vessel's external appearance and the division of its internal volume also play a significant role in Briand's balanced design concept, but the main element is, without doubt, the efficiency of the hull form. Built entirely from aluminium the *Vitruvian* yachts are long, lean, and lightweight and, as they are explicitly designed to create less resistance to the water (drag) than a conventional displacement hull, they consume significantly less fuel and therefore emit relatively low quantities of CO₂. Such ecological friendliness is also enhanced by the adoption of many environmentally-friendly technical items that are rewarded within the 'Green Plus' notation developed by the Italian classification society RINA. Notably, RINA not only confirmed this notation but also honoured it with the award of 'Green Yacht of 2010', which will be presented at this year's Monaco Show.

The first thought of the owner of *Exuma* on seeing the model had been 'it's a beautiful looking boat, but it isn't going to work for my needs'. But, drawn into conversation, and fascinated by Briand's convincing arguments he slowly formed the view that this concept might well fit the *Explorer* yacht that he had in mind for Pacific cruising. This is an owner who is no stranger to yachts or 'adventurous' cruising, having previously owned three significant motor yachts and circumnavigated aboard his last, a 34-metre, aboard which he developed some very firm requirements for his next vessel. The combination of the slippery hull and the smaller engines needed to take *Vitruvius* to 16.5 knots, together with its concomitant fuel efficiency and forecast of long range fitted well with his needs. He was also quite ready to accept a narrow-beamed yacht, having studied ideas proposed by the American naval architect Tom Fexas in the 1980s, but he initially doubted whether his other requirements were compatible. The yacht he envisaged had to be under 50 metres in maximum length, under 500 gross tons (a volumetric measurement, above which figure crewing and other regulations start to make yacht ownership more complicated) and have a draught of less than 2.4 metres to ensure access to shallow anchorages. It also needed internal stowage for two tenders as well as for an amphibious car and a hovercraft (to deliver guests ashore over open beaches in dry condition) while a long 'wish list' included a powerful yet silent bowthruster and a serious stern anchor to allow safe manoeuvring and secure anchoring in the tightest lagoons and bays. Accommodation needs were for a master suite, and cabins to accommodate nine guests and nine crew. It was a tough assignment to fulfil, especially within the sailboat-like hull envisaged for his *Vitruvius* series, but Briand rose to the challenge and over the course of a year of design and tank testing at Southampton University's Wolfson Unit he ticked all the owner's boxes and received the go-ahead.



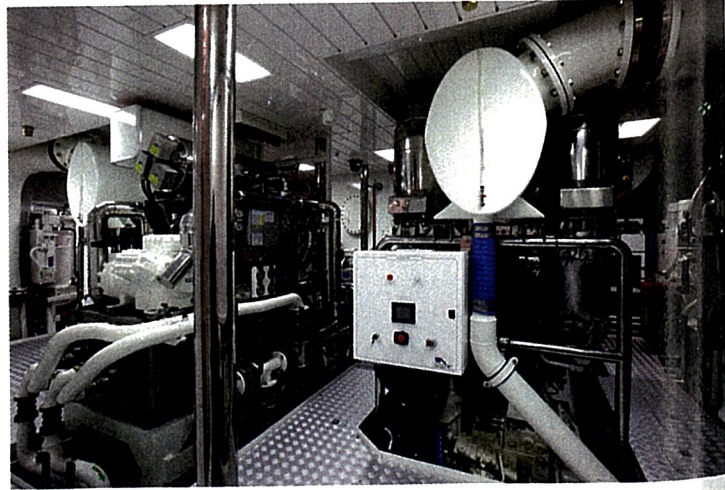
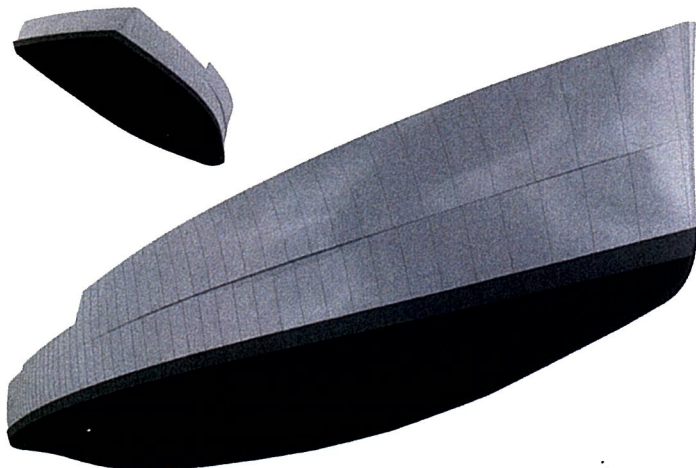
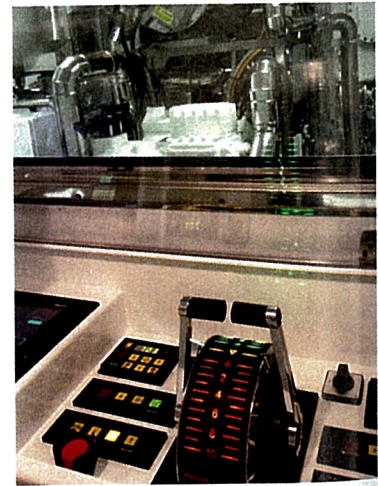


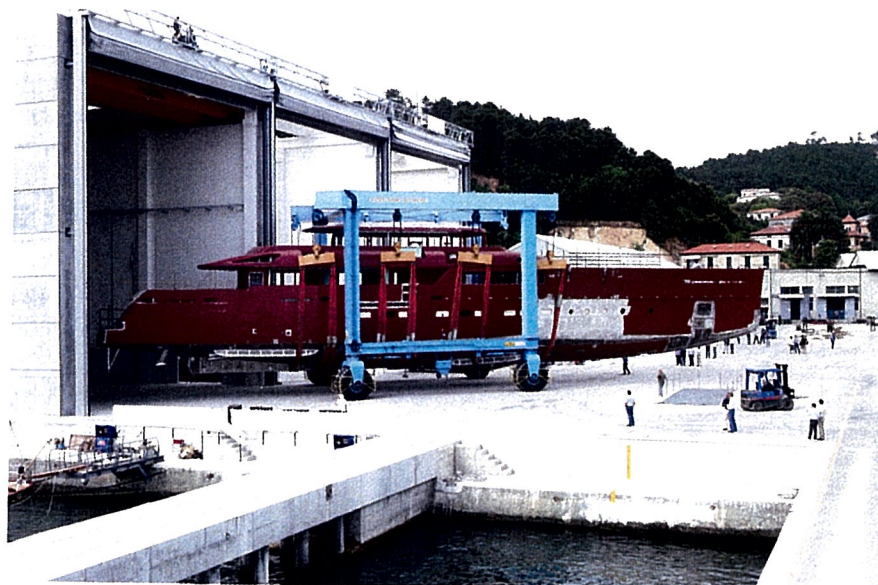
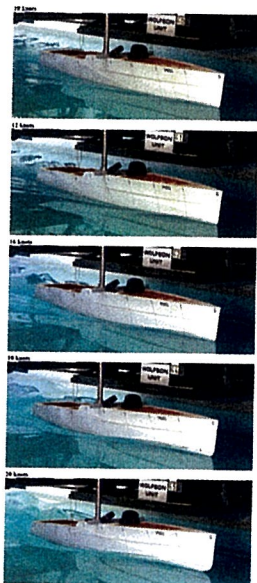
Stowage for the extensive toy collection is particularly impressive, with various compartments housing everything from an amphibious car and a Hov Pod hovercraft, to the main 6.4-metre Castoldi tender which is stored in the stern garage





The standard of fit-out for the technical areas is no less accomplished than the rest of the yacht, and in spite of the relative lack of volume from the narrow, shallow hull, ample space has been allocated not only to the control room, but also to the main technical area itself. Access to the main engines is excellent, helped in part by the fact that the lean, slippery hull has allowed smaller engines to be used





Tank testing on the sailboat-like hull confirmed that the design would offer increased range and fuel efficiency while reducing CO₂ emissions, factors which have helped *Exuma* earn RINA's Green Yacht of 2010 award

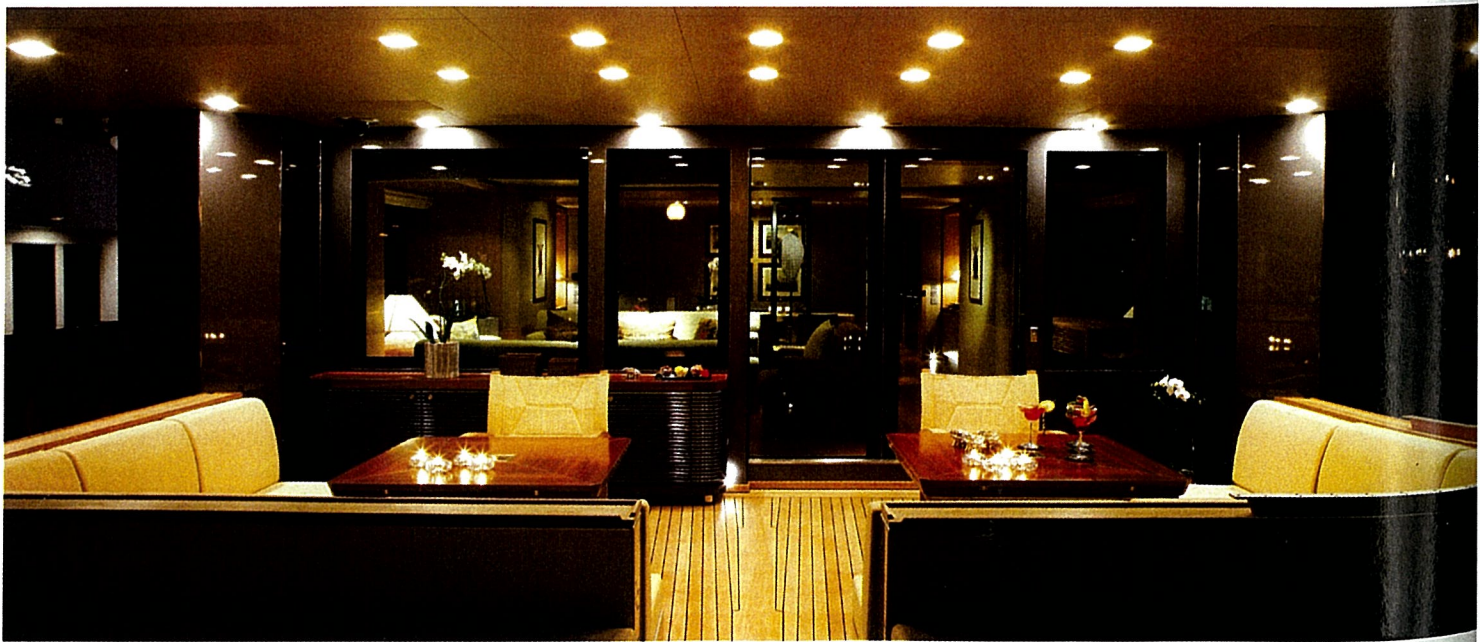
When it came to selecting a builder, a detailed bid package was widely distributed among Europe's leading yards but it was Perini Navi, who had long been trying to break into the motor yacht market under the name of Picchiotti – a well known shipyard that Perini had purchased some years previously – that was selected on the basis of cost and expectation of high quality. 'It was a gamble,' admits the owner. 'I had signed up with a sailboat designer who had never before designed a motor yacht, and with a builder of sailing yachts which had never before built a motor yacht, but my confidence was high because people who design and build sailing yachts are always striving for a highly efficient hull that offers lightness with minimal drag.'

Two years later, in July 2010, when *Exuma* was lowered into the water at the former Beconcini shipyard in La Spezia that now bore its new name of Picchiotti Srl, the owner knew that he had made a good decision. Out of her building shed and suspended in the slings of the travel-lift, the whole hull was visible for the first time – a long, lean silhouette clearly different from the majority of today's motor yachts that tend to be designed to maximise internal volume. In comparison, this sleek greyhound of the oceans has a knife-like bow, delicately curved and almost vertical, designed to increase waterline length and minimise pitching, which cuts a sharp furrow through the waves rather than being lifted over them in conventional style. Round bilges minimise drag-producing wetted surface, while her shallow transom is slightly scalloped to reduce the draught requirements of her twin, high-skew propellers. Drag reduction was also achieved by choosing a drop-down bowthruster rather than the more conventional 'exposed tunnel' variety, as tank testing showed that the latter could add up to 8 per cent in drag, while the required fin area for the pair of Quantum zero-speed stabilisers – another creator of drag – was able to be reduced on account of the innate high stability of a hull whose small, light superstructure provides a naturally low centre of gravity. Two short bilge keels that add to wetted surface are in evidence just aft of amidships, but while these are creators of drag they fulfil another owner need – a back-up against stabiliser failure or damage in remote areas. Other interesting hull features are the water outlets which sport elegant stainless steel 'eyebrows' – another drag reducing solution – and the complex design of the exhaust outlets that ensure the correct back pressure for the main engines, which have very short exhaust

runs. Very practically, the leading edge of her bow is capped with stainless steel to protect the softer aluminium from damage by flotsam.

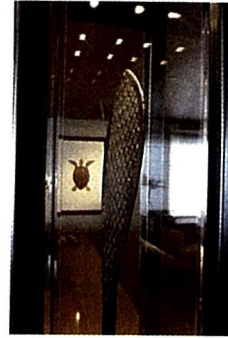
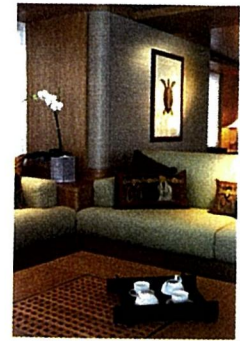
In the water, *Exuma* has yet another dimension – purposeful good looks. Yachts with minimal superstructures and long foredecks, exemplified by *Carinthia V* and *Limitless*, always attract admiration, and *Exuma* has this quality in spades, while adding serious distinction with the convex glass windows that ring her bridge deck. The cost of such glamour is the lack of a sundeck above the bridge deck, which means that her open deck areas are limited to the aft portions of the bridge and main decks, together with a planned but not yet constructed awning that might be suspended from the tender crane on the foredeck to serve the needs of larger social gatherings. To the owner, though, this limited deck space is not a downside, as his and his wife's needs are more than satisfied by a large spa pool (featuring 55 water-jets) flanked by sunbathing mattresses on the bridge deck aft, and by the similarly sized sunbathing area on the main deck aft, forward of which is a extendable dining table that can comfortably seat up to 14 guests.

On both levels the side decks, laid out in the normal configuration with the decks at main deck level rising up over the master cabin to give access to the bridge side decks and on to the foredeck, offer a comfortable balance between width and easy movement around the yacht. They do, however, incorporate a couple of interesting features, the first of which is that to save intruding on the already small size of the deckhouse there is no increase in the width of the bridge's side deck where the steps rising from the main deck land, thus effectively blocking the continuity of the upper side decks and ensuring privacy for the aft deck. Should privacy not be an issue, a hatch can fold down from the superstructure to close the stairwell on the port side deck, and open a fore and aft route on the port side. The second is that there is no exterior connection between the two levels of aft deck, other than a vertical ladder which serves the needs of grandchildren in wet bathing costumes dodging between sea and spa. Should grown-up guests have the same needs they must dry themselves and pass through the interior if they wish to preserve their dignity! Both compromises are very acceptable and have saved valuable deck area. One notably practical feature of the decks is the provision of side boarding ladders at both levels, which allows *Exuma* to lie alongside in yacht marinas as well as





The understated and elegant interior combines natural white oak and grey-stained brushed oak panelling with a teak sole and contrasting fabrics. Ornaments include Polynesian ceremonial artefacts; of note is the wooden paddle, displayed in a case which has been designed to offer support to the spa pool above



against the higher commercial docks that she is sure to encounter in more remote cruising grounds. Other nice deck details include titanium rails, silky to the touch, that offer low maintenance and light weight, and a pleasingly modern flagstaff design, which incorporates LEDs at its truck to light the ensign.

Exuma's owner is the first to admit that his long narrow hull shape provides the interior volume more usually associated with a 45 metre, rather than a 50 metre yacht, but huge, lavishly decorated interior living spaces never were his aim. What was important was to ensure excellent outward visibility and to create a calm interior that would blend well with the surroundings. Perini Navi's in-house interior designer, Bernardo Chichi, worked with the owner to create the volumes and floor plan, while Daria Nobokov (the grand-niece of the author) was responsible for fabrics and interior decorations. The layout is not startlingly different from the well-established industry norm that remains a highly acceptable and practical solution to make the best use of available space. The volume of individual spaces are well considered and while not extravagant in size they are extremely acceptable for their purpose. The one significant variant is that, in view of the space limitations of *Exuma's* narrow hull, the galley is located on the lower deck within a generous crew area and food is served via pantries on the main and bridge decks.

The real triumph of the interior is its understated and extremely tasteful elegance. Set against a background of natural white oak and grey-stained brushed oak panelling and laid teak floors, the furniture and fabrics of the saloons blend comfort with pure modern design. As one might expect from any company associated with Perini Navi, Picchiotti have also ensured that they are also of high quality, and these virtues combine to create superb living areas in which interest and colour are introduced with the occasional use of contrasting shades of fabric together with Chinoiserie cushions and lampshades, marine prints and Polynesian ceremonial ethnic artefacts. One of these, a delicately engraved wooden paddle, is housed in glass display cabinet at the centre of the main saloon which blends art with the need to support the weight of the spa pool on the deck above. Interestingly, this was a solid pillar in the original design but the owner astutely suggested



LOA
49.5m

LWL
48.9m

BEAM
9.5m

DRAUGHT
2.3m

DISPLACEMENT
400 tonnes

ENGINES
2 x Caterpillar C32, 970 kW
@ 2100 rpm

RANGE AT 12 KNOTS
5,500nm

BOWTHRUSTER
Van der Velden EPS
110kW retractable

**GENERATORS
(MAIN/EMERGENCY)**
2 x Caterpillar 115kW /
1 x Caterpillar 86kW

FRESHWATER CAPACITY
17,000 litres

SPEED (MAX/CRUISE)
16.5 knots / 12 knots

FUEL CAPACITY
75,000 litres

STABILISERS
Quantum zero speed

**GREY/BLACK WATER
TREATMENT**
Hamann



EXUMA

OWNER AND GUESTS
8/9

CREW
9

TENDERS
6.4m Castoldi, 4.3m
Castoldi, Hov Pod SPX
10-4, amphibious Iveco
Campagnola

CONSTRUCTION
Aluminium

CLASSIFICATION
ABS, #A1 Yachting
Commercial Service,
AMS, MCA

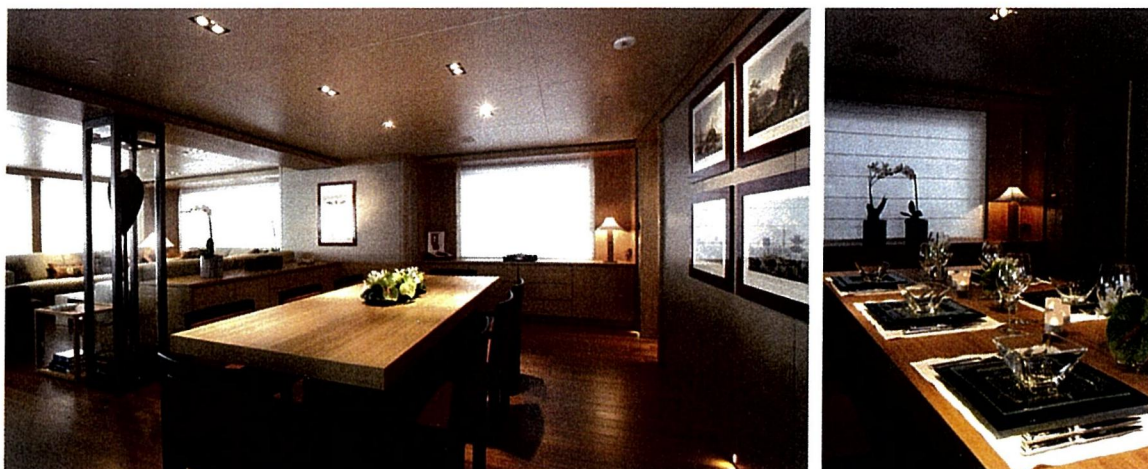
NAVAL ARCHITECT
Philippe Briand

EXTERIOR STYLING
Vitruvius Ltd

INTERIOR DESIGNER
Bernado Chichi, Perini Navi;
Daria Nabokov

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web: www.perininavi.it



Despite the relative confines of the narrow hull form, the main deck social and dining areas offer a sense of spaciousness, with large windows making the clean, contemporary interior feel particularly airy

dividing its mass into four columns to create the cabinet.

Owner-inspired design is also evident in the master suite, set across the full beam of the yacht just forward of the starboard side entrance lobby. Here the request was for two separate bedrooms, a double and a single, together with a bathroom and a separate shower room. This has been well executed and, despite the lack of a dressing room, there is a surprising amount of hanging space in concealed wardrobes, while a huge 17th Century Japanese screen that exactly fits the forward wall of the double cabin provides a spectacular feature. In the same style as the remaining three lower deck guest cabins, the bed is set athwartships, providing magnificent ocean views through the huge windows.

Despite their lower deck location, each guest cabin also has excellent exterior visibility through a pair of large ports. All en suite, with their shower rooms embellished with a tasteful Cipollino Apuano marble, two are doubles which can be converted to twins, and the third a twin. Once again they are all comfortably sized and sublimely decorated in the same style of understated elegance that distinguishes the remainder of the interior. A fourth compartment on this level is a gymnasium, equipped with a fold-up running machine and a multi-gym set against a wall, while two fold down beds provide overflow crew accommodation.

A sliding service door connects this lower deck guest area directly to the crew area, where four cabins and a small laundry fill the bow space between the bowthruster room and the forward watertight bulkhead, aft of which a well sized crew mess and a professionally equipped galley lie abeam of the gym and twin guest cabin. It is an ingenious layout that, in view of the many other demands on the volume of this slimline yacht, provides the crew with a surprisingly large living and working space, separating guest and crew areas and offering discrete circulation routes.

Having been shown around the yacht's interior, many visitors will be hard pressed to believe that the yacht also stows such a wide collection of tenders and vehicles within its hull. Directly above the crew quarters (which are not lacking in headroom) lie two large garages that house a 3.7 metre Hov Pod hovercraft and a 5-metre-long amphibious vehicle, custom built on an Iveco Campagnola frame. Not yet delivered, this latter vehicle will feature a combination of four-wheel drive for land use and Castoldi water-jet propulsion for passage to the shore. Both of these vehicles, which are launched by beam cranes through shell doors in the sides of the hull, will serve to get guests ashore with dry feet, the hovercraft having the particular ability to cross reefs that are a barrier to a tender. Just forward of the garages, two flush-topped deck lockers house the 4.3 metre rescue tender and a huge Sea-Doo RXT 250 jet ski that are launched by a centrally positioned hydraulic crane that is contained in its own locker. A third, refrigerated, locker serves as a garbage store. At the yacht's stern, a wide upward-opening transom door forward of the bathing platform reveals an even larger garage where yacht's main tender, a 6.4 metre Castoldi jet, is stowed, along with diving gear, a couple of electric scooters and a Sea-Bob underwater tow. All carefully chosen, role-oriented equipment that is very practically housed.

Naturally, the yacht's mechanical and navigational areas are of the high quality, both in terms of equipment and its installation, that one associates with Perini Navi, and now Picchiotti. In the bridge, the choice was made to use manufacturers' controls rather than to integrate the many units in a more visually-pleasing panel. Easy sourcing of replacement units and spares when in remote locations and their swift fitting by the yacht's own crew was the definitive reason for this choice. This philosophy extends throughout the yacht's machinery with, for instance, Caterpillar being





The master suite on the main deck benefits from large windows, offering both plenty of natural light and excellent views from the transverse bed. A 17th Century Japanese screen adds a focus point to the forward bulkhead. The three guest cabins one deck below all have a pair of large ports; en suites are finished in Cipollino Apuano marble, while a fourth cabin on the lower deck acts as a gymnasium and reserve crew cabin



EXUMA

chosen over other makes of engine and Furuno being selected as the prime supplier of navigation equipment. The bridge is fully electronic with its five screens displaying conning, full ECDIS navigation and X- and S-band radars, while special features include a night-vision camera and a navigational display that provides a useful 'Google Earth' 3-D style visualisation of bays and anchorages that one might wish to visit. Outside the bridge's pantograph doors, which feature a clever, easily operable inner sliding door made from Perspex, are a pair of wing stations whose very comprehensive instrumentation includes a chart display screen.

At the time of writing, *Exuma* has not covered many miles at sea but current experience is all very positive. She cuts through 2.5-metre waves like a knife through butter, keeping her deck dry in the process, while she swiftly accelerates to 16 knots and executes full speed, full-rudder turns while remaining completely upright. 'I have never before seen anything like this in a motor yacht,' said the impressed owner. At her optimised cruising speed of 12 knots, *Exuma* is forecast to deliver an impressive

range of over 5,500 miles from her 75,000 litre fuel tanks, while capacious storage for food and other supplies ensures a matching autonomy.

Created by talented designers, accomplished builders and a knowledgeable owner, *Exuma* is a new 'environmentally-responsible' style of yacht that seems to have it all – long range with high performance and good economy with an excellent division of her interior volume that serves all the needs of the owner, guests and crew. Add to that her high quality build, carefully chosen selection of purpose-orientated tenders and vehicles, a comfortable interior distinguished by its pure modern style, and her convivial deck spaces, and this has created a very special yacht. This first vessel in a new generation of Perini Navi/Picchiotti motor yachts is sure to make ripples in the superyacht design world.

● *Exuma* will be available for charter in the Caribbean for Christmas 2010 and New Year, and in the Pacific from early 2011. Contact your usual charter broker or the yacht's central agent, Fraser Yachts (Monaco), on email: monaco@fraseryachts.com and telephone: +377 93 100 45.

