



Digital rendering of the 33ft project built by the Artus yard

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Green design: the future challenge

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A passion for boats and the sea has been with him since he was a child, and after a degree in architecture he began working with Intermarine s.p.a.

Who is Mattia Massola? How did the Green Yachts design studio come about?

I joined at a time when the company had decided to undertake no longer only military but also commercial products, looking to the pleasure yachts sector with the Rodriguez brand. My job was to follow several projects, specifically I looked after the interior fitting out of boats in both fibreglass

and aluminium. Later I was hired by Cantieri Navali Baglietto in La Spezia as production manager. It was a great experience, because I followed not only design but also the activities of the yard, I superintended the work, organised the whole process and talked to the workers, the owners and the various craftsmen. In those years I followed projects for 46 and 42 metre vessels, working on big dimensions puts a lot of variables in the field and

at first it all seemed much more complicated, you need to work with a lot of care and precision. Years later, the Azimut Benetti Group asked me to follow the startup of their yard in Sardinia for a new boat production line, and I became site production manager. It was one of the best and most instructive experiences I've had, I found myself working in a place where nobody had ever built boats before. I came into contact

with a reality with which I wasn't used to working, I had to explain the nautical sector to professionals who had worked all their lives in construction or other sectors that were anyway distant from boats. I too had to work on boats with them and experience the life of the yard all round. From this experience came two 30 metres, two Leonardo 100 and the Magellano. Then years ago came the turning point, I had the chance to



Digital rendering of the 33ft project built by the Artus yard. Interior, detail of the Main Deck saloon del Main Deck

set up on my own with a partner, and from this came the company that gave life to the Green Yachts studio. In 2009 we realised that there was a new sensibility towards ecosustainability, but at the same time we realised that nobody had

the courage to put the good intentions their theories were full of into practice, nobody was really tackling the issue, so we said to ourselves "if nobody is really doing green design, we will!" Sometimes the words sustainability and green become just a pretext

or a trend to get publicity, without anything concrete behind them. This makes me angry, because that way you ruin the image of those who really do want to do something to change the current state of affairs. Some just change their image, others really try to do something concrete, putting themselves on the line day after day.

The aim of Green Yachts is to bridge the gap between words and action.

Why do you think there is such a big gap between words and action?

Because it's very hard to design boats respecting the concepts of sustainability. The boat itself is not a 100% ecosustainable object, and then there aren't many yards who are sensitive to this aspect, many of them already

have designers who produce very different kinds of work. With the current market situation, we at Green Yachts have decided to study and design the boats ourselves and then offer them to yards, owners or interested parties. This was the case of the 33', an inexpensive boat that consumes little and is ecocompatible; we wanted to give the market as product that offered much more than existing ones.

The winning card was managing to put on board a hybrid boat an extra cabin compared to other boats of the same length. The Artus Yachts yard believed in Green Yachts, and today we are in partnership not just for a 33' but also for a complete range, a 23', a 40' and a 90', and perhaps in the future there could be something new and even bigger!



The architect Mattia Massola

MATTIA MASSOLA

A young Genoese architect who's always had a passion for the sea and boats. After receiving a degree in architecture he starting working with Intermarine s.p.a.. Later he worked for Cantieri Navali Baglietto and after with the Azimut Benetti Group. In 2009 he started the Green Yachts studio in Genoa, and designs boats with a responsible and sustainable approach to the product.

Encounters

Ecosustainability

What is the real challenge a sustainable product has to meet in the nautical sector? What does Green Yachts do?

We promote a responsible design approach to conceive a product that is sustainable in several ways. Sustainable means reducing the environmental impact to a minimum, not just when the boat is in use but also during its building, its design and its breaking up.

The real challenge for sustainability in mass boat production is recycling fibreglass, this will be the business of the future. Unfortunately we're not yet ready to do it, fibreglass is ground up and reused as inert material or mixed with asphalt, but this is not real recycling. We dream of overcoming this challenge thanks to our many collaborations and our desire to do it. The life cycle question is very important. For good ecosustainability, you need to design a product that can be regenerated to produce a material that if not the same as the original is very like it. This can be done today with aluminium and all metal components. Once

a boat in steel or aluminium has been broken up and stripped down, it can generate more metallic material for new uses, without loss of quality. You can't do that with fibreglass, and that's the real obstacle to ecosustainability in the nautical sector.

Another very interesting topic we're looking into are bioresins, though this too is a difficult area, because it's hard to know how bio they are and what are their real physical and mechanical characteristics. Finally, it would be worth talking separately about biofuel engines, but here too there are limitations, for example in engine guarantees if they use alternatives to fossil fuels.

Do you only design small boats or apply green thinking also to bigger ones?

No, we don't only do small boats, but also refits of big boats, for example a 30m Wally and another boat of more than 46m. We deal directly with the owner, who asks us to refit the boat with the added value of ecosustainability. We are looking at two projects on yachts of more than 50m with really avant-garde design, lines

and content, and we hope to present them to the public soon.

So there are some enlightened owners?

It's not easy to talk about sustainability with owners, especially of big yachts. Perhaps the sailing boat owner is more sensible and receptive, but in general the client turns up his nose at the first mention of the word "eco", they think it means something that's more expensive, that's not useful and is of lower quality. Communicating the product to the end use is a fundamental part of Green's mission in a project. The client, unless he's not particularly sensitive to environmental issues, much appreciates talk of fuel saving and controlled exhaust pollution thanks to particular engines. These issues find fertile terrain perhaps because they have more to do with the cost of running a boat...

The automotive and residential sectors seem much more evolved environmentally; could they become important reference

points for yachting?

Certainly! I always ask myself why, given that the world has more water than dry land, people keep paying more attention to the car sector? And if cars today are going in a certain direction, why don't we follow them? This is why we at Green Yachts look at research in the automotive sector, for example, in our projects we drew on the technology used in the Toyota Prius. One of our collaborator-partners is studying a system that automatically understands when the boat should use diesel or electric power, just like the Prius, it's a brilliant system because that way you optimise consumption and save energy. Unfortunately today we can study electric boats, but for now we have to make do with hybrids. There aren't yet economical ways of storing electrical energy or reliable systems for fully electric propulsion with a range for long voyages, and then there are big limits on speed, and owners well know this. Besides, crews and skippers in generally aren't ready for exclusively electric propulsion, and I can understand them. This is a big hurdle, which is why I think that the green approach applied to the nautical sector must be very gradual and slow, you can't expect everything right off. Today we can win acceptance for hybrids, tomorrow we'll try to go further.

As regards materials, we learn and import a lot from the architecture and design sectors. Residential is a field where the green question has been studied for many years now, it's applied and appreciated and the costs

Digital rendering of an 80ft project





Digital rendering of an 80ft project. Interior, detail of the stern cabin



of products are often much more competitive than those in the yachting sector. This is another matter that comes into the “eco” question; sustainable also means economical and easy to maintain, and the residential sector teaches us a lot under this aspect.

So you can look at, for example, recomposed or regenerated wood, which is also perfect from the maintenance point of view.

How can you increase the sensibility of clients to green issues?

We need a lot of help from legislation, there should be a kind of energy certification like that in the building sector. RINA certifications are certainly a big help, but they look at the technical aspects, not construction, production and fitting out. A certification that classifies the boat not just for the discharges of its various systems or engines, but also and above all from the point of view of the materials, its construction and what happens when it is broken up. Certification could also create classes so that a boat

can be labelled and its value increased; I am sure that green would automatically become more popular and at last owners would make an effort and understand the value of this research.

So ecosustainable doesn't just mean engines or a careful use of materials, it's much more, something that makes a product completely sustainable?

A product becomes ecosustainable also when the costs of product, sale and use become competitive. Staying with the ecosustainable issue in the construction phase, the design phase is fundamental too, for example the simpler the surfaces of the boat are, with a single curvature, the easier they are to produce. I also think that surfaces with a single curvature are much more architectural and appealing, they make the final design very sporty and appealing to owners.

In this sector it's very important to have synergies with other companies, other yards and other research centres; it's impossible to think you can do it all

yourself, it's much more sustainable to collaborate. Only that way, by working together, can you develop winning products.

What suggestions can you offer to a yard?

The first step towards the concept of a sustainable product could be 0 km production. That is, building the boat with the crafts and products close to the yard, and this could also be interesting in marketing terms, you could advertise an all-Italian or all-regional boat, built with local material and by Italian craftsmen. Who go looking for marble in South Africa when there are wonderful high quality marbles here in Italy? This could be a way of holding down costs and so having a much more sustainable boat. Here the architect comes into play, we designers need to advise the client on the right approach to the project.

How do you think the emerging nations will behave in this respect?

The new emerging countries don't yet have this sensibility,

the countries in the famous BRIC are undergoing now the evolution we experienced 15 years ago, they still have a long way to go before developing a sensitivity to sustainability. It's a problem, sure, but for now they have other priorities.

Is there still a lot left to do to design a green yacht?

What should be the principal areas of study?
You need constant research into eco-materials (natural, regenerated, recomposed) and above all you need to reconsider the current production process of yachts. In addition, you need to study a way of capturing natural light as much as possible, thus saving on the lighting system, and/or use low consumption electrical apparatus, new sound and heat insulating materials to reduce the use of air conditioning on board, be careful to use paints with low toxicity, use water conservation systems and be careful to employ refuse storing systems. Well, there's still a lot to do, but I'm sure we're on the right track!

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