

What does the Superyacht industry represent and what will its future look like?

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The yacht industry is one that is experienced by many involving many different career paths and very extravagant lifestyles and within this industry is a highly prestigious category of Superyachts, this is where the super-rich of this world compete to own the largest and most expensive boats in the world. These boats are something that owners can have commissioned to a design and build team, to design something completely bespoke that fits all of their very specific requirements. Because of this bespoke nature, it is very expensive and there are huge sums of money involved in all aspects of the build. The industries annual revenue rose '£660m in 2018-19 which is an increase of 7.1% on the previous year' Smith (2020).

At present boats are perceived to be a pastime, it is something for people to enjoy good weather and relax in beautiful scenery. However, the way that most people enjoy their boats is extremely different to the billionaires of this world. For them a boat is a private hotel, somewhere they can sit down and not have to worry about any daily tasks. They can travel oceans in complete luxury, allowing them to settle in any desired destination. It is this type of freedom that the average person can only dream of, making it the reason why these boats are so expensive. This type of freedom experienced through limitless travel all around the world allows for true relaxation. 'Sometimes all your body and mind need is relaxation', Sparks (2019). From a designer's point of view, looking at what enables someone to fully relax is important. When someone interacts with an object you have designed, the aim is for it to be as simple and comfortable to use as possible. At the end of the day a designer's job is to blend the line between humans and the way they interact with things, in essence to make tasks simpler. This luxury became even more apparent, yet distant, during the recent COVID-19 pandemic. These super wealthy individuals were able to maintain isolated, in bubbles, on board the superyachts and continue to stay in beautiful places. I believe this led to the massive boom experienced by the yacht industry at the start of 2021. This is supported by Kirkman (2021) when she stated, 'yachts are the safest bubble for vacation and travel.' She also said that 'the market climbed 45% in the first three months of 2021'.

A large cause, for such a booming superyacht industry, is the competitiveness of the clients. Many of them want to be the one to have the longest or largest boat, while some want one which has the most toys

on, it becomes a game of cat and mouse. 'The exchange value of a commodity is a reflection not of its usefulness, but of the amount of human labour that went into producing it' (Dean, 2010, p. 34). This gives a reason for why the hyper rich want such extravagant items, in this case they do not just want the most practical boat, they feel a need to have the most expensive and extravagantly built they can possibly get to reflect the time and craftsmanship that goes into building it. This is where competition between owners comes in. The reason for this competitiveness is in human nature, 'to win a championship, a promotion, or a date, you only need to beat the immediate competition' Hutson (2015). The way that modern society is structured requires us to be competitive, to demand more. Otherwise, we would lose out to others that are more competitive.

There is some interesting psychology that takes place within the super wealthy, from a young age these people have been driven to succeed. They may have had failures along the way, but eventually they have succeeded. However, when some hyper wealthy get to this point it is common for them to question whether having all this money is actually a success. Dean describes the basic needs of a human, from needing a house and jobs to daily life. He talks about needing 'more than jobs' (Dean, 2010, p. 5). I find this really gives meaning to what people want in life. We do not just want a job and a house; we need to feel like we are living and have a purpose. I think this element of humans is what causes the super wealthy to spend huge sums of money on large boats, because they feel it will give them a newfound connection with nature and a purpose. They lack the feeling of being human and having genuine connections with people without it being based on monetary interests.

When people are extremely wealthy people tend to be drawn to them because of their social status and not for them as a person. Money can 'discourage some positive social interaction' (Watson, 2008). In this article they talk about studies conducted that involved money and how the pure idea of money can drastically change the outcome of someone's decisions. The outcome of these studies back up the theory that having large quantities of money can lead to individuals making different choices, especially in such an image driven industry. When a client decides they want to buy a superyacht they are not just buying a

boat, they are buying an idea, an idea of a lifestyle that they want to experience. One that involves them owning in essence a piece of artwork that represents them, that they are able to live in. When a designer is trying to win a contract, they are selling the idea of a particular lifestyle that they believe the client will be interested in or even desire. For example, selling the idea of relaxing by a pool on the back of a boat in the Caribbean or the idea of Heli-skiing in the Arctic regions. This is very important to the process as it can determine what the owner wants the boat to represent and how it is used, therefore taking on a certain design language.



(Cartalla, 2020)

The yacht pictured above is called Lady S, it is a 94-metre superyacht owned by the American businessman Dan Snyder. This boat attracts charter guests and other owners because of the toys it has available on board, from the basketball court on the front to the retractable 201-inch TV screen on the stern of the boat. This is necessary because as the owner would view it, why not? This boat also boasts the first ever IMAX cinema to be fitted inside a superyacht, using gyroscopes to ensure it is stable at sea. I completed work experience at the design firm who were tasked with designing this yacht while I was there and the main aims for such a boat are to impress people, not just for the clients needs. The idea that when buying an extremely expensive yacht like this, the client will consider what others see before what they

want just shows the kind of industry that this superyacht industry represents. It allows the super wealthy to show off what they can buy.

I believe there will be a large change in the design language of superyachts, currently they are very uniform in design, almost entirely white and have very distinct decks forming a 'cake' effect. I think as younger generations and tech wizards start to make money, design will become about being distinct and standing out. The problem with current boats is the owners want it to work and are not willing to take risks when it comes to design. It has got to the point where an owner could be strolling along the pontoon in Monaco to get on their boat and accidentally walk on to the wrong one and this will soon become a reality and I can see there being a shift in the type of boats that people will own. They will want their boats to stand out in the most expensive harbours in the world, they want people going past to stop and look. As a designer wanting to go into the industry, I am excited to see the type of ideas that are currently just concepts that will become a reality in the near future. Many companies come up with the creative ideas for conceptual work but when it comes to actually building boats, neither the companies nor owners are willing to take the risk of building ones that are conceptual and challenge the norm.

There is a design process that is referred to as a refit, this is the process of taking old out-dated boats that are no longer wanted anymore and redesigning them. This can require a full strip down to the hull and re-using the hull or designing a new skin and interior for the boat. As the number of boats being built increases, eventually there will be a surplus of boats and so this industry could take off. It is also much more environmentally beneficial to recycle old boats instead of building new ones. It is this end of life for a boat that I think can be turned into such a positive; it is a much cheaper option to building an entirely new boat, it saves the scrap material and from a design point of view it can be challenging but the results are likely to be beautiful, due to the older style of boat. Therefore, I believe this idea of recycling old, unwanted boats will help increase the longevity of the industry due to an increased life for the product, in this case, a boat.

Mental health is a very important aspect in all of our lives, some people suffer with problems that fall into these mental health issues and I believe it is only starting to be considered and there is a rising awareness of this issue. Previously there was a misconception that people struggling with these problems just needed to 'grow up' as it were, and it was not considered as an actual health problem. However, in recent research that has been conducted it has been found that it is a medical issue that needs real treatment, or it can become even worse. 'Many studies have since confirmed that mental health problems carry a stigma' (Brysbaert and Rastle, 2013, p.555). Unfortunately, it is this stigma that means people do not always get the treatment they require, or never come forward and admit the problems they are having. 'Researchers in Holland and Japan have found that as little as 20-30 mins exposure to nature a day can significantly reduce cortisol levels' Hanna (2018). If just 20 minutes a day can reduce stress, then staying on a boat being exposed to nature all day is a perfect way to destress. Just being isolated and reducing human contact can help someone to feel themselves, if you add into that the fact that they are in beautiful places surrounded by nature it is the best way to relax. That is exactly the reason why the super wealthy businessman of this world buy superyachts is because they want a private space in order to relax in complete comfort. I believe that this will lead to more boats being bought in the future due to people have a desire to spend more time outside in nature. As jobs become more computerised, more people will spend time inside working on computers, therefore there is less connection with the surrounding world. This could lead to more cases of mental health problems and this will require some form of treatment, in this case people with money will go out and buy boats so that when they are not working it will give them a place to relax. I also believe that as more jobs require more time spent indoors, it will become a luxury to be able to spend time outside or even work outside. This will have a positive impact on the boat industry leading to more jobs and more investment, which in turn could help to improve the environmental impacts of this industry as more money can be spent on finding cleaner environmentally friendly approaches.

The boat industry has many negative impacts, for example, boats are travelling to the most beautiful parts of the world, some unspoilt, where they are directly in contact with the most delicate ecosystems in the world. This means they are putting harmful chemicals straight into the ecosystem in beautiful places, the exact places that need to be protected.



(Berkey, 2010)

The image above shows the horrible slick created when oil and fuels are released into the sea, this is extremely harmful to the environment and animals living within it. Many sea birds become soaked in this oil and become unable to move along with others being poisoned by the toxicity of the oil in the water. Although these oil spills tend to be caused by large ships carrying oil, superyachts contain many harmful substances such as fuels and oils. Residue from these can be released into the surrounding area through bilges. 'The worst oil spill in history, the Gulf War oil spill spewed an estimated 8 million barrels of oil into the Persian Gulf', Melina (2010). It caused awful effects on the environment and covered an area of '101 miles by 42 miles and was five inches thick.' Melina (2010). The oil that is released into the sea is extremely toxic and accounts for huge numbers of animal deaths. Unfortunately, if events like this continue to happen then we will gradually kill off many endangered species and cause a lot more species to become endangered. Therefore it is essential that industries either cut back on the use of oil and oil produced products or they find safer ways to use it.

Plastic in our oceans is another big issue, 'it is estimated that 150 million metric tons of plastic circulate the world's oceans' Kiprop (2018). It is this plastic that is ruining our oceans and we are only just starting to raise awareness for how damaging this plastic is. With this much plastic already in the ocean it is time to start finding ways to clear it out and I believe this is where the use of boats and superyachts could help, if someone is able to come up with something that can attach to a boat in some way that either collects the plastic or removes it from the water then while these boats are travelling around the world through the plastic polluted sea they might be able to clean it up, or at least make a difference. Some boats may even be specifically designed to clear ocean plastic, for example using a similar method to how the gold mining industry separates the gold from the soil and mud. This would enable nature to start to repair itself and I think boats are a good place to start to help to remove this plastic.

Unfortunately, technology has not advanced far enough for these boats to be powered using clean energy. Therefore, these boats are putting harmful emissions, chemicals and fuel residue into the water in these stunning locations. This has a negative impact on these ecosystems due to increased degradation. Some boats do not even require the use of a holding tank, meaning raw sewage is released directly into the water. 'Just 16 of the world's largest ships can produce as much lung-clogging sulphur pollution as all the world's cars' (Pearce, 2009). Statistics like these are extremely worrying as there is the constant push to have electric cars on the road, however, if boats like this are still operating around the world, then the pollution will continue. I believe that the boat and superyacht industries need to push for cleaner and more effective technologies. From a designer's point of view, the main aim is to create a boat that suits the needs of the client and the environment around it equally. Unfortunately, 'a lynchpin of sustainable design is the concept that the needs of business (profits), the needs of people, and the needs of the planet are not mutually exclusive' (Cuffaro *et al.* 2013, p. 170). This describes the problems encountered in the design industry, it will always be a compromise between them; in the yacht industry specifically, designers and builders are under pressure as a business to receive the job and keep the client happy, while at the same time trying to do the best thing for the environment which can add cost to the project.

I think there will be changes in the way that boats are owned moving forward. There are already companies in the smaller boat industry who essentially provide a boat sharing service, clients own a share of a boat as well as others and they share the cost of owning and have allocated time available on the boat. One of these companies is called 'Flexisail', they charge you a fixed rate and this allows you to use certain boats for an allocated number of days per year. It is an interesting concept because boats were always either owned or chartered whereas this idea blends the two. It allows it to be a much cheaper and hassle free than owning a boat, but it also offers you the flexibility and freedom to use the boat as if it was your own. This has positive effects on the environment because if there are less boats being used because they are shared between multiple owners then it reduces the fuel consumed and pollution created. As this becomes more common it could move up into the larger boats and allow wealthy clients to own superyachts together and reduce the problems encountered with chartering such as availability and freedom to go wherever you would like. However, it may be the case that this removes the special feeling of stepping on to your own superyacht built and designed specifically for you so it may not reach the very top level of superyachts as the industry is very much about exclusivity.

There is a very exciting future for superyacht and boat industries as a whole. The rapid advancements in technology will allow vast expanses of ocean to become very easily accessible using minimal energy. New materials such as hemp fibre 'is already sustainable option due to its rapid growth in small areas' (Cannabis Magazine, 2020). This material specifically will allow much cleaner and more environmentally friendly production methods enabling lower chemical pollution. An industry of this size creates a lot of by-waste during production, if the material left over is a sustainable and natural material it will greatly reduce the environmental impacts during the production process. Another problem during the building of these large boats is the materials and chemicals used can be extremely harmful to humans and the people building these boats are constantly exposed to them, which can cause adverse health effects.

There is a boat that is currently travelling around the world, named the 'Energy Observer' it will 'travel around the world, emitting no greenhouse gases, fine particles or noise!' Franklin (2019). It uses hydrogen

combined with electricity to power itself, the reason why hydrogen seems so appealing is because of the weight reduction. The 'crew believe that batteries would weigh more than 10 tons. While they don't say the weight of their H₂ system, it is probably more in the range of a ton.' Templeton (2021). This huge difference in weight reduces the amount of power required to propel the boat therefore reducing the amount of energy consumed to do so, therefore making it much more efficient. The boat creates Hydrogen using electricity, through a process called electrolysis. This is when 'a power source connecting to two water-based electrodes, scientists can get hydrogen bubbles to come out of an end called an cathode,' Grossman (2019). However salt water is harder to use because it can cause corrosion to occur so in order to stop this an 'anode was coated with negative charges' Grossman (2019), these protect the metal and stop the salt water from breaking it down. This allows boats to take salt water, which there is an abundance of when you are at sea, and to convert it into hydrogen, allowing them to convert this hydrogen back into electricity and power the boat. This is much more efficient because of the reduced need for large battery packs that would be required for a fully electric boat.

Boats are always on water, this means there are many possible ways for energy production enabling increased range or even infinite range. Hydrogen has the opportunity to provide something very new and exciting, when it is used all it produces is clean fresh water and energy, so it has absolutely no pollution. The sea is a large energy store, huge amounts of it pass through as waves and as well as thermal energy. Boats also tend to be located in the sunnier regions of the world meaning they are exposed to more intense sunlight for longer periods of time, making them the perfect example of something that could use solar cells in an efficient way. There are other options such as using Nuclear power which is extremely efficient as well as being completely silent, however it can be dangerous if used incorrectly and is not easy to maintain as boats would require nuclear engineers on board at all times. I do believe electric powertrains will become the chosen powertrain of the future, however, I also believe there will be many different options to generate this electricity in a clean and sustainable way.

The use of hydrofoils in the boat industry is very exciting, it allows the boat to drastically reduce the drag through the water allowing higher speeds and reduced energy consumption. They are developing very quickly mainly through the America's Cup sailing series.



(Gladwell, 2020)

The image above shows how a hydrofoil on these boats is shaped. They use the speed of the boat going forward to create lift, similar to an airplane wing causing it to lift the boat up out of the water. This is essentially a form of flying and it allows a very small surface area of water to be in contact with the hull to reduce drag. This type of technology can be brought into the world of larger boats, even though they are much heavier and slower, just the smallest reduction in drag will make huge differences to the energy required to allow boats to cross oceans. There is also a market for the fact that when a boat is hydro foiling it is no longer touching the surface of the water, where the waves are, so it is a much smoother ride therefore more comfortable experience for the people on board essentially creating a Rolls Royce ride on the sea. This technology can be adapted to create the idea of super luxury by flying over the water, it is also some few get to experience and so it makes it seem even more prestigious than it already looks. This would work well in the tender market where clients are picked up on smaller vessels to be taken out to the

main boat. Especially for charter guests as this is their first experience of the boat and so it needs to be something impressive.

The current world is just recovering from the Covid-19 pandemic, this was a perfect example for everyone having to isolate in their homes. With nearly '3.9 billion people' (euronews, 2020) under restrictions to stay at home it has created a market for something that allows people to maintain isolated. Whether this is because of preparing for future pandemics or just the guarantee of safe travel. This gap is where the future of boats will go, they will become floating homes instead of just something to relax on for a few weeks. After all the superyacht industry is driven by some of the wealthiest individuals in the world, therefore they are in essence allowed to do as they wish. If they want to be experiencing all of the beautiful parts of the world relaxing in beautiful yachts while the rest of the world is stuck inside having to isolate from potentially life-threatening diseases, then it seems entirely possible. The idea of a superyacht also represents this type of lifestyle, one that enables the owner to do things that others cannot. To an owner this is further justification for them as to why they own this superyacht and the fact that other people get to see the benefits they are able to experience. The rapid urbanisation of cities has led to them being 'unhealthy places to live because of dirty air, polluted water supplies and sprawling waste dumps' (Weeks, 2009, p. 99). As most of the super wealthy earn their money in cities, a lot of them will be looking to get out of them and live healthier lifestyles. The main reason for this being the pollution and it being detrimental to their health. As they have the money to escape, they will be looking for something that could allow them to travel to different cities or countries while enjoying the fresh and healthy air. A boat allows the owner to combine the holiday experience with the travel, on a boat the travelling bit is part of the holiday and not just a way of getting to the holiday destination. Once you have arrived in the desired location, the owner has all of their own belongings with them and a guaranteed luxury place to stay with their own staff, on their own bespoke superyacht.

Overall, the way the boat industry is heading, is towards a much cleaner and more efficient mode of travel. I believe most of the technology that will make big changes is already available to us, but the main problem is costs. In an industry like superyachts, where every aspect of it is privatised and clients are individuals buying boats, unfortunately someone will not pay more for something that is better for the environment when it does not directly benefit them, especially when others are also not doing the same. There needs to be a change in mindset for owners as well as the companies providing materials and parts. It needs to become the norm to offer and provide the more ethically sourced products and alternate options that are better for the environment without higher costs. I also believe that the way boats are owned will change, there are so many options for boat sharing now as well as chartering. The market for private cruise liners will begin to expand as the wealth is transferred to younger generations who do not want the burden of looking after a boat. This idea of multiple owners could develop into a situation where superyachts double up as private apartment blocks that are able to travel around the world. These would be lived in by extremely wealthy individuals who do not have a need to live in particular locations; such as modern crypto-traders and other computer reliant industries. This allows them to work remotely from wherever they wish in the world. The design language will shift from conventional boats to more artistic shapes and using simplistic forms, this will also involve using more vibrant colours that the owners feel represent themselves. It is this younger generation that will change the way boats are perceived and will ensure that they are not detrimental towards the environment. Moving forwards, I believe the most important thing that guarantees the future of this industry is ensuring that environmental issues are addressed and that solutions are found, including helping to remove plastic that has built up in our oceans. This essay has enabled me to conduct background research surrounding this industry which has benefitted me by giving me a deeper understanding of this industry that I aspire to work in.

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