

Intro to HCI
Design fiction paper
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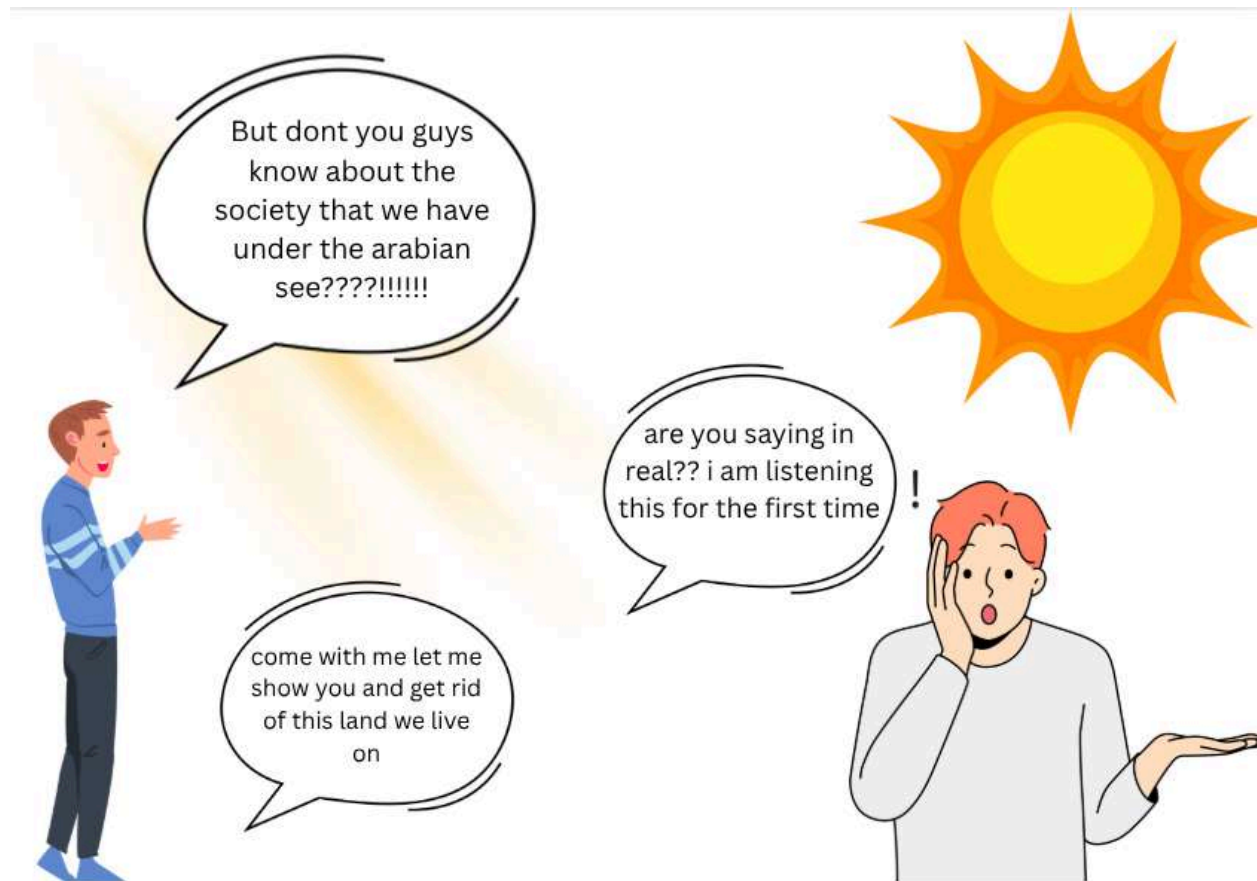
Beneath Karachi

Karachi isn't the same place to live as it used to be in the year 2060. The land has become unpleasant to live on because it is so hot and half of the city is already underwater in the Arabian Sea. People are gasping for air because each day in the sun is getting more dangerous. While many people are still in pain above ground, a new way of life has quietly sprung up below the waves. It offers oxygen, energy, and a way to get away from the heat. But... not everyone knows about it yet.



Still, hardly everyone had given up. People claimed there was a secret metropolis beneath the Arabian Sea. Said to be a safe haven driven by technologically advanced construction meant to last even after the top dropped away in the ocean. If you knew someone who could let you in an offer represented more than just escape. It indicated a fresh beginning.

The blue man has spent years living down there. Early on he relocated to Abyss-K. It looks like Karachi but just underwater. He extended his hand for the water as the sun set and was ready to show the newcomer a world driven by oxygen systems and the cutting edge Hydro-Ride transportation.





Under Karachi life had found a way homes lit the ocean floor like stars and populations flourished among coral gardens and silent currents. For newcomers like Zain it was like entering a dream only this one was actual.

One newly born Karachi began to bloom in the Arabian Sea. Abyss-K was the first subterranean city known anywhere. It was meant to resist a lot of pressure and give them another shot at life. Once a dangerous and unknown territory, families, engineers, students, shopkeepers, and dreamers were surviving on the seafloor. They were not among the surface confusion.



Young people from all throughout Abyss-K gather in a stylish command centre with digital screens to laugh, chat, and figure out how to exploit undersea paths to move from one area of the globe to another. Big windows on brilliant yellow submersibles let scuba divers travel freely through coral tunnels. On displays is the SubCom Network. Everybody arriving and leaving the city is tracked live by this technology. This is a safe location to be in a society when going about is vital.

Outside of Abyss-K's main school every morning, you can hear the soft sound of oxygen systems and the pulse of sonars. The kids at the Karachi Undersea School wear small swimsuits that were made to fit their growing bodies and let them move freely around the steps. All of the kids toys have smart communication screens and air vents that can be adjusted which is important for safety in the squished open spaces outside the sealed buildings.



Children can play outside in this half open area of Abyss-K. Above it there is still a force-buffered water dome maintaining the correct water level and temperature. Kids can play sports including football, swim tracks, and swing sets in these mixed zones designed with anchoring systems and buoyancy settings below the water. A yellow SubCom Shuttle zips past just outside the gates and picks students and employees from the surrounding educational districts.

The way things work here is a bit familiar, even though living here is strange. They can hear short bursts of laughter in the sea through their radios. Digital boards flash in their hands as they go over what they learnt in the morning. In spite of this, there is a feeling of order. In Karachi, every suit, screen, and rule shows that people need to plan to stay alive instead of just hoping they will.

To get around Abyss-K, you need more than just to know where you want to go. You also need to trust the SubCom System and have time to use it. This network is used by all submarine trips that go through the underwater city. At submarine transit hubs in Karachi, public dashboard stands let aquasuiters see real-time maps of submarine routes to figure out when and where the subs might come and go.



Each dashboard is linked to the Central Grid and shows an interactive schedule based on the credit state and user ID. The system is smart; it changes routes based on changes in the currents beneath and heavy traffic in the ocean. Some students on their way to the central study dome are told by Rehan, a senior logistics technician, about the new delays that are happening because of work on the coral reefs.

Cities with well-planned traffic systems make the city's most important landmarks stand out. These systems use ideas that were used on land but have been changed to work with fluid dynamics. Floating cars move at the same speed as people walking on sonar-guided paths on the bottom. What looks like a normal spot here is actually a work of engineering that shows how time, pressure, and flow can keep a whole society going.

Life in Abyss-K depends on energy, and the ocean floor is abound with it. Long ago, every last bit of oil on land went out. The new route runs under Karachi at the bottom of the ocean. Underwater pressure zones have revolutionised the way oil rigs are constructed to allow them to tower among clusters of marine life. Their fuel arrives straight from the surface of Earth to the floating economy far below.



Divers in difficult suits carry oil in large, safe containers to adjacent petrol stations under the water, where it fuels generators, subs and home electrical lines. Better still is Abyss-K's closed-loop energy model. It recycles what it can and does as least harm to the planet as feasible. Particularly designed submersible ships glide silently past the drilling zone, instead of cars.

Engineers developed a light but powerful design that would fit the particular form of Abyss-K as the demand for personal movement in that country expanded. The outcome was the Hydro-Ride, a turbo-thrust water flyer resembling a motorbike but really a boat. Using the Hydro-Ride which has a thick, narrow base, an oxygen mask, and a back turbo motor people started to use it often to get about the underwater city.



Its operation is straightforward weighted magnetic base pads stabilised movement against upward currents and push from the rear motor supplied directional velocity. Near the buildings citizens could readily negotiate the car via public stations, coral alleyways, and more extensive highway paths. This diegetic prototype with its simple labelling and low learning curve came to represent underwater freedom of transportation.

As everyday life changed beneath Karachi, the Hydro-Ride transformed from a novel idea to a way of existence. In Abyss-K gliders glided over sandbanks and past floating traffic lights, humming inaudibly. These devices were utilised by vendors, staff, and schoolchildren to navigate their underwater communities.



In the picture above we can see people going to work in different areas in the morning. Some are going to their jobs while others are going to petrol stations or learning pods. Submarines float gently above and smaller Hydro-Ride units buzz along paths strewn with coral. Not only does the car show how clever people are with technology, it has also become a visual representation of what it means to live Beneath Karachi.



Abyss-K went beyond a concept now. Under the Arabian Sea it had evolved into a real place people lived, worked, and started fresh lives. Children attended classes, others prepared food at home, and the Hydro-Ride cycles let everyone get around quickly.

Underwater everything humanity required transportation, petrol, food was now readily available. People missed life above even if they had to wear special clothes and masks. Their way of life had evolved into one that seemed safe, orderly, and hopeful.

The residents of Abyss-K discovered tranquilly and a fresh beginning deep below the sea while the ground above grew hotter and more difficult to live on.

Part 2: Reflective Piece

- 1) What was your primary inspiration for creating this scenario? Was it a paper, movie, current discourse, conversation, or something else? How did the inspiration translate into your submission?**

My main inspiration for creating this scenario is that I am not originally from Karachi and I belong to Hyderabad which is a neighboring city but far from the sea. When I was a child I used to fear the idea of going to Karachi thinking “What if the whole sea comes into the city one day? What will happen then?” As I have grown older I've realized that this fear is not so unrealistic anymore. With global warming, glaciers are melting, and sea levels are rising it's a real risk.

Another inspiration was Karachi's extreme heat and high pollution levels. I'm someone who suffers from dust allergies and ever since I moved to Karachi the dust has affected me badly. Unfortunately this has made me dislike the city more and more.

Considering all these things, I started thinking if the sea is already around us and is a part of nature's design then why not try to live with it instead of fearing it? That's how the idea of creating a society under the sea came to me.

- 2) Is your design fiction primarily good or bad? Is it optimistic or ominous? How and why?**

I hope that my design fiction is more on the good and hopeful side. It starts with a serious issue like pollution, rising sea levels and heat waves but then it turns to how people can adapt to a new way of life under the ocean and stay alive and even live better. I didn't want to show destruction or hopelessness but I wanted to show how technology, imagination, and hard work can make the future of us humans better.

I made up an underwater city that isn't perfect but it gives humanity a second chance. Even when things are hard we can still build something peaceful, clean, and well equipped. In that case yes it is more hopeful than dark.

3) What is at least one fact or constraint that you aimed to challenge or let go of while designing your submission?

At first I thought there should be an overall glass protected society and people would live, go to school and do everything inside that. But then I thought I should drop this idea because it might create a gap between the people on land and the people living underwater.

Another constraint was when I was making the sketch of the Hydro-Ride on my tablet. I didn't think about the emission that would come out from the motor. Even when I gave the sketch to GPT to make it more realistic, it showed flames and smoke. Then I thought that after destroying the land, if we follow this idea in the same careless way, we might end up ruining the water too. So I asked GPT to remove the smoke and create a cleaner version of the image.

4) What is the value that we take from this design fiction? What do we achieve by deploying this technological future?

The value of this design fiction is that it gives us hope that even if things go really bad on land, we can still survive by thinking differently. It shows that nature, like the sea, can also become a safe place if we use it in the right way.

This future also teaches us to be careful. Just because we make new technology doesn't mean we should use it without thinking. It makes us ask questions like who will get access to it and how it will affect the environment. So this idea is not just about escaping the heat but about making a better and more fair and peaceful society underwater.