to water this enhances both self-esteem and mood more than just access to green space alone.

Blue space also activates a reward response in an area of the brain rich in opioid receptors that triggers feelings of wellness. Therefore, we actively seek it out and put value on it. A good example of this is the increased real estate value of properties on beachfronts and with sea views. The European Centre for Environment and Human Health in the UK is dedicated to exploring how natural environments can help to promote human health and well-being. In 2010, researchers associated with the centre investigated how the inclusion of water elements in natural and built environments affected people's preferences and emotions as well as the sense of restorativeness. The participants viewed 120 photographs of natural and built scenes half of which had some kind of water in them and were asked questions about the appeal of the scene and their willingness to visit the place and how the image made them feel. The research showed that both natural and urban scenes containing water rated more positively with higher preferences, more positive emotions, and greater perceived restorativeness than those without water. (White et al. 2010). Interestingly, built structures near water, for example houses on a canal, were rated as positively as green space.

Along with psychological benefits, some physical benefits as well. As Nichols relates in Blue Mind, a study of Australians in New South Wales showed that those who lived in a postal code on the coast were 27% more likely than the rest of the population to report activity levels that were adequate for healthy adults and 38% more likely to report vigorous levels of activity than the inland dwellers. (Bauman et al. 1999). In England, over 55% of all coastal visits were found to be made by people who live within 5 miles of the coast (Wheeler et al. 2012). Thus, coastal communities may attain better physical health due to the stress-reducing value of greater leisure time spent near the sea.

Cape Town's Blue and Green Biophilic Spaces

Biophilic design within Cape Town is best demonstrated with the city's many examples of bio-cultural assemblages that have attracted people to enjoy and value them for generations. Within Cape Town, we have fourteen man-made tidal pools

Cape Town, A Coastal African City

By Camila Coogan Budden, Biophilic Design by Kugan

Cape Town has been rated the best city in the world seven years in a row by readers of the U.K. based, Daily Telegraph. It is best known for Table Mountain National Park nestled right in the middle of the city and running along the coast to Cape Point Reserve. Besides its stunning inland nature, located at the southern tip of the continent, the city is also hugged by the Indian and Atlantic Oceans and is known internationally for its rich biodiversity and stunning marine, coastal and inland nature. Cape Town is also a city with a raw and socially unjust history. Therefore, the health of communities and opportunities to enjoy blue and green spaces for all socio-economic groups is as important as individual well-being and healthy eco-systems.

Blue Space as Contribution to Health and Well-being

Instinctively humans are drawn to being in nature and close to natural systems. If you think about a happy, calming place or a destination where most people like to spend their vacations, more likely than not it is by the seaside or near a big green space such as mountains. Anecdotally, one could say that being in and near nature is good for us. However, there is formal research to prove that green spaces such as forests, savannah and blue spaces, such as rivers and the ocean, are good for our physical and mental well-being. (Roe et al. 2019). Time in nature also fosters environmental stewardship and provides a way for people to get relief from socio-economic stressors. (Ewert et al. 2005).

As marine biologist J. Nichols documents in Blue Mind, blue space has a strong positive effect on our physical and mental well-being. (Nichols 2014). Nichols relates that a 2013 happiness study showed that the highest increase in happiness in an outdoor environment occurred when people were near water, and that being in marine and coastal regions added 5.2% to a person's happiness. Time and time again researchers have found that proximity to water strengthens the positive effects that the environment has on well-being. A study of people in Ireland found that people living within 5 kilometers of the coast enjoyed higher life satisfaction and living within 2 kilometers of the coast strengthened the effect. (Brereton et al. 2008). A University of Essex team researching outdoor activities in the U.K. discovered that while every green environment had a positive effect on both self-esteem and mood, habitats with open water produced a significantly larger degree of improvement. (Barton and Pretty 2010). We are happier in natural settings, and even though green spaces have many benefits for our health if you add in proximity
scattered along the coast of Cape Town that are perfect examples of ocean-related bio-cultural assemblages. They have attracted locals and tourists to enjoy the protected pools in the intertidal zones safe from the constant movement of the ocean (minus a few waves hitting the ocean-facing wall at high tide). They are not only enjoyed for their sheltered swimming conditions but also for the small wildlife that inhabit the pools. Kids and adults alike snorkel around the pools spotting little ocean creatures that take refuge in these pools. A local group of tidal pool users started documenting the wildlife found in the pools and realised that these pools are also safe havens for a lot of species to breed and live. They also realised that the local municipality, whose cleaning methods used environmentally damaging chemicals, were unaware of the biological value of these tidal pools. As a group of citizens, they approached the municipality with a list of species found in the pool and photographs taken of them. Through volunteering their time and working patiently and methodically with the municipality, they have now assisted with changing the cleaning techniques to the use of a high-pressure hose with no chemicals, keeping the eco-system in the pools safe. These tidal pools are a perfect example of biophilic design where a man-made design is aiding biodiversity and healthy ecosystems while providing cultural importance and space that aids in human well-being and connection. This fosters a love and connection with the ocean and its ecosystem at the same time. Cape Town is an iconic illustration of a biophilic city hugged by green and blue space. This promotes not only the mental and physical well-being of people but fosters environmental stewardship as well as it allows people from poorer socio-economic backgrounds an opportunity to escape harsh social realities such as poverty, gangsterism or violence, even if just momentarily. Besides inspiring a love for the ocean and stewardship of it, many of the organisations are using the ocean as a medium to take people, especially youth, out of the lower-income areas of Cape Town, namely the “Cape Flats”, that are known for gangsterism, violent crime, and drug usage, and showing them a different reality with the opportunity to be immersed in nature safely facilitated by inspiring role models. A project that is doing a great job at this
about and runs the youth program “Defenders of the Blue” that teaches youth about coastal ecology and what every individual can do to mitigate the effects of pollution.

Author Richard Louv expresses that sustainable happiness and custodianship come from consistent interaction with a place. The endless list of organisations and individuals that have been inspired to share what helps them and what they love proves that consistent immersion in nature, in this case the ocean, fosters a deep relationship to place, a desire to share it, protect it and retreat to it for clarity and comfort as well as for community.

It is said water heals the mind or, more accurately for Cape Town, the ocean is healing society. So, next time you need some reprieve from urban life and the ocean is far away, pick up a shell and put its cavity to your ear or put some earphones in and listen to a meditation track of the sounds of the ocean and notice how it makes you feel. You will be surprised by the sense of calm that flows through you.

There are numerous organizations working in Cape Town that have been founded by local citizens who love and appreciate the ocean and understand its value for a healthy society. Below are a selected few from a long list, each working to inspire connection and protection of the ocean for social and environmental well-being.

**Inspire and Protect**

**The Beach Co-op** is an organisation started by a local surfer, conservationist and mom of three young boys, Aaniyah Omardien, who wanted to do something to give back to the ocean she loved so much. She started with beach clean-ups on the rocks near her local surf break. Now her organisation, led by women in the community, focuses on empowering coastal communities as keepers of oceans and organises beach cleanups to keep South Africa’s beaches clean and healthy.

**The I am Water Foundation** founded by Freediver Hanli Prinsloo has the motto, “you protect what you love” which they use to drive their vision. They promote ocean conservation through human experience by facilitating immersive workshops in the rockpools and on the beach for school kids. Many of these kids live 10 kilometers from the ocean but have never experienced or learned about what lies beneath the surface of the water.

**The Seachange Project** is a group of scientists, journalists, storytellers and filmmakers that aim to connect people to the Great African Sea Forest, as they call it. The intention of their work is to motivate scientists, policymakers and individuals to engage meaningfully with nature and protect our oceans. Through their images, films and book they have inspired and educated many locals on what sea life inhabits our kelp forests and have encouraged curiosity and wonder resulting in many more people exploring and diving on our coastline.

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**Resources:**


The Beach Co-op: https://www.thebeachcoop.org.


