



Society for the Promotion of Education and Learning  
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*«Πόλεις του 21<sup>ου</sup> αιώνα: σε αναζήτηση της ποιότητας»*

**Cities reimagined:**

**Exploring sustainable ways of living from Icaria to San Francisco**

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### 1. INTRODUCTION

It is a well-known fact that, for centuries, cities all around the globe have implemented a range of innovative ideas in both the living and the build environment. Considering the increasing percentage of people who already live or plan to live in a big city, it is of primary importance that cities provide its citizens a healthy, safe and resilient environment. However, turning a city into a more sustainable one isn't always feasible, taking into consideration the great amount of difficulties that today's societies encounter, such as climate change, poverty and multiple socio-economic problems.

Under such critical conditions, the challenge for governments is how to protect and manage natural, cultural and human resources. However, there are examples so far which show in practice that many of the above issues are being approached successfully in some areas at an international level.

Three pillars of living are identified in our quest for quality living, namely, lifestyle, space and education. The mentality and habits of the people in different parts of the world, the exploitation of space both public and private and the way through which the youth is educated are critical so as to appreciate, reinvent and ensure a sustainable future living environment. In our presentation, we are going to be looking at places in Europe and the U.S.A. in relation to the above and draw conclusions as to how to create a resilient way of life.

### 2. LIFESTYLE

#### 2.1. *Ikaria*

An article on New York Times referred to it as 'the island where people forget to die'. According to the same article, one day in 1976 Stamatis Moraitis, a war veteran, felt sort of breath and was diagnosed with lung cancer. He was to live 9 months so he decided to move back from the U.S.A. to his beloved Ikaria. He's now 102 and cancer-free.

Ikaria, is a Greek island in the Aegean Sea, which is considered one of the world's five 'Blue Zones', in other words, places where the population regularly lives to an



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advanced age. One in three make it to their 90s and this is due to healthy diet, lifestyle, and genetics.

Ikaria has a permanent population of approximately 8,500 inhabitants and the majority of them lead a traditional way of life. The main areas of employment are agriculture, livestock farming, fisheries and low-key tourism. Most visitors come to realize that the island and its people exist beyond the normal concepts of time as we are used to in the modern world. The Ikarians tend to live at their own pace and have always been self-sufficient people. They farm their own land - with most households growing their own supply of organic fruit, vegetables and herbs. Youths start learning to harvest the land and herd animals, as well as other traditional labour, as early as their adolescent years.

Ikarians are a people with a rich history who have endured many hardships throughout the ages. They are down to earth, industrious, hospitable, independent, energetic, playful and humorous. They were occupied and influenced by a multitude of conquerors but, by and large, they have managed to keep intact most of their indigenous customs, culture and traits, and they are proud of that. Ikarians are known for their hospitality to visitors and people in need, even when they have limited resources.

As far as nutrition is concerned, Ikarians have a minimal consumption of meat and dairy and a greater consumption of beans, nuts, (home-grown, organic) fruit, vegetables, herbs, honey and olive oil seem to make a huge difference to lifespan as well as quality of life, as does their relaxed sense of time, festive spirit and physical work in the great outdoors. The local herbs and honey are supposed to be, according to researchers, natural remedies, which improve blood circulation and have strong antioxidant properties.

One of the traditions of Ikaria is the so-called 'night program'. It is found mainly on the north side of the island in the region of Rahe. Shops open at night and stay open even after midnight. This custom dates back at the time when Ikarians wanted to remain unseen by the pirates. Last but not least, occasional napping, which is also a habit of the



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residents of the island, is associated with low risk of coronary heart disease and a healthy life style.

## 2.2. *Denmark*

A very popular concept that has dominated Britain and the U.S.A. and has almost turned into a movement is that of ‘hugge’. Its principles are quite simple, they consist of cozy atmosphere, presence (the ability to be in the ‘here and now and turn off your phone), pleasure, equality (‘we’ over ‘me’) gratitude, harmony, comfort, shelter and truce (coming together to discuss non-controversial issues), in other words, the idea of being curled up in a blanket to enjoy a cup of hot cocoa.

Hygge, word of the year of 2016 according to the Oxford dictionary, is a Danish word which is connected with coziness and conveys the idea of well-being created by a feeling of togetherness. It features prominently in the Danish tourist board marketing strategy and is about feeling relaxed, savoring the simple pleasures of life, indulging yourself and enjoying your sanctuary from the world and its worries. In other words, what freedom is to Americans, ‘hygge’ is to Danes.

The general mood is less stressed, encouraging, laid-back, friendly behavior, that’s why Danes are ranked among the happiest people in the world. Psychologists emphasized the importance of good friends and social life for mental health which is, ultimately, contributing to the nation’s happiness. Danes created ‘hugge’ as a means of escaping boredom, cold, dark and sameness of the Danish winters. It seems that their lifestyle and movement’s manifesto is also essential in creating a sustainable and resilient life.

## 3. SPACE

### 3.1.1. *Copenhagen*

A remarkable example of a sustainable city is definitely the capital of Denmark, Copenhagen, which, with the help of its inhabitants, has long put sustainability at the top of its political agenda. This is why Copenhagen was awarded the title of best



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European Green Capital of 2014. This is a title awarded by the European Commission that helps to promote and reward such efforts and exchange best practices among European cities. Besides this, the city has also been singled out as an excellent model in terms of urban planning design and green economy. Thus, a number of environmentally friendly initiatives have been included in spatial and sectorial policies throughout the past 60 years that aim to make the country more climate-friendly.

Some of the most innovative actions that the city of Copenhagen has taken are integrated in three main thematic areas:

### ***3.1.2. Nature - built environment (open green spaces, tree lined roads and avenues, green roofs, public harbor baths)***

Great emphasis has been given to the creation of livable open public spaces, such as tree-lined roads, parks and roof gardens. The trees not only clean the air and act as a cooling counterbalance to the heat, but they also give the citizens a place where they can relax and reconnect with nature. Besides this, in 2010, Copenhagen began integrating green roofs into its urban development strategies and mandated that every new building should have a green roof creating, in this way, a more climate-friendly country for its citizens and tourists as well. What is more, the water quality in the harbor has dramatically improved since the government invested in a complete revitalization of the sewage system, which includes an automatic warning system that monitors the bacterial level of the harbor. This modernization has led to market regeneration. Thus, the City of Copenhagen was able to open the public harbor baths and turned the area in one of the top attractions where anyone can have a swim in the heart of the Danish capital.

### ***3.1.3. Accessibility - mobility (eco-friendly means of transportation)***

Copenhagen is world famous for its bikes that outnumber cars. Having introduced and embraced bikes since the 1960s, the government tends to encourage citizens to leave their cars aside and use a more sustainable and eco-friendly means of transport to commute around the city.



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### 3.1.4. Infrastructure system (technical, relates to energy issues and handling of waste & social, concerns educational and health issues)

Copenhagen has placed public as well as private partnerships at the core of its approach to eco-innovation and sustainable employment. For this reason, it has provided billions of dollars in order to make a significant investment in public infrastructure by transferring land to a publicly owned but privately-run corporations for development. As a result, the value has increased and it became a center of commercial life and residency.

In terms of telecommunications, the Danish network is cutting-edge and as in many countries worldwide, broadband Internet has been available in almost every part of the country.

What is more, the city of Copenhagen has long found a new way of constructing buildings with sustainable resources so as to eliminate the premature deterioration and the weathering impacts on them, which are both outcomes of climate change.

The knowledge and experience from all these initiatives has come to establish the Copenhagen school of energy and infrastructure. This is a state-of-the-art school which focuses on conducting research in the future's energy infrastructure from a financial point-of-view so as to guarantee an effective move towards a new sustainable European Energy Infrastructure based on the usage of solely renewable energy sources.

### 3.2.1. *San Francisco*

Another conspicuous example of eco-friendly cities can definitely be considered the city of San Francisco, which has come out of the fog to differentiate itself in the green world as a powerful leader.

The city is taking significant steps in order to improve the quality of living as well as the environment, from a new ban on the sale of plastic bottles to biodiesel buses. In every restaurant or store, someone can notice the city's recycling and composting system, a move that shows the environmental concern of the citizens.



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According to numerous studies, San Francisco is trying to use more and more information and communication technology with the perspective to be a smarter city and more effective in terms of resource usage. That is the reason why it encourages energy savings, service reliability and improvement of the quality of life by supporting innovations and low-carbon economy.

*It is worth mentioning some of the city's sustainability goals:*

### **3.2.2. Achieve zero waste by 2020**

San Francisco has introduced a number of innovative legislations to achieve this specific goal and as a result, the current rate of waste management in the city reaches 80%.

RecycleWhere constitutes a collaborative initiative implemented by local governmental agencies which aim to reduce waste. To achieve this goal, the program uses OpenSource software and an open data model in order to provide localized and accurate information concerning the act of recycling, the reuse and the proper disposal options not only for the residents but for the enterprises as well. The citizens of San Francisco can use recycling sites to be informed about which materials go in each different recycling bin, in contrast to food left overs which are being composted and are not thrown away as recycling materials.

### **3.2.3. Become a carbon-free city by 2030**

Buildings account for 70% of the electricity that is being used in the U.S.A. and more than 53% of the carbon emissions in San Francisco. San Francisco has 41 % renewable power coming from solar energy, hydroelectricity, biomass and geothermal energy. To meet San Francisco's target of carbon-free by 2030, the San Francisco Department of Environment (SF Environment) is implementing a comprehensive plan of incentive programs to improve performance of both new and existing buildings, of course with the help of state-of-the-art technologies.





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To begin with, SF Environment has collaborated with a private company to create a tool that maps the solar and wind installations all across the city, called SF Energy Map.

It has also partnered with ImproveSF to challenge San Franciscans to come forward with proposals to encourage residents to share their energy bill data, which can enhance programs and policies to promote energy efficiency. The winner of the challenge has the opportunity to integrate his/her energy idea into a program or app, called Energy Use Challenge.

In addition, SF Environment created 'Honest Buildings', a building-centered software platform to help buildings conserve electricity. The web platform offers information about the performance of a building to property owners, administrators and landlords and provides at the same time the most energy-efficiency solutions to help them reduce electricity costs.

As for means of transportation, cars and trucks are responsible for about 40% of carbon emissions in San Francisco. Therefore, SF Environment encourages smart commuting, electric transportation and biofuels. It also offers Charge Points and SF Parks.

Charge Point is a network of 110 public EV charging stations, which has helped track and monitor electric vehicle data and improve the city's EV infrastructure.

Besides this, SF Environment noticed that parking loops account for up to 30% of the pollution in San Francisco. In response, SF Park was developed to use new technologies and strategies to improve San Francisco parking. SF Park works by collecting and distributing real-time information about where parking is available so drivers can find open spaces quickly and easily.

## EDUCATION

### 4.1.1. *The Muse School*

A successful example of a modern sustainable school is the Muse School. The Muse school is the first school in California to be 100% solar powered, zero waste, and with a 100% organic, plant-based school lunch program. Muse school was co-founded in 2006 by





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James Cameron, his wife Suzy Amis and her sister Rebecca Amis. James Cameron is a Canadian filmmaker, artist, environmentalist and National- Geographic explorer, who is best known for making science fiction and epic films for Hollywood. The team's goal was to create a learning model that equips students with the skills and tools that are needed to flourish in both higher education and the job market. The Muse curriculum is also heavily focused on critical global challenges such as climate change, enabling students to understand the issues so that they are ready to play their role in the preservation of the planet.

The Muse school is constructed with natural materials and includes reclaimed wooden floors, ceramic-based concrete counter tops free of toxin-containing cements and includes hypo-allergenic and non-toxic joint compounds, paints, primers and finishes, many made from natural materials. It's really important to mention the fact that the school limits the usage of plastic materials, including a prohibition of all kinds of plastic water bottles, for school activities and for their lunch and snack programs. The campus includes native plant landscaping that compliments the local environment. It has five solar powered arrays in the shape of sun flowers that generate the power required for the school. Not only is this a prototypical idea that gives a different touch to the school but the solar powered sun flowers are programmed to actually track the sun the way an actual flower would. All of the lights, AC, electric cooking equipment, refrigerators, and freezers at the Muse school are all powered by the sun.

Furthermore, the school operates based on strict Food-Water-Energy guidelines to reduce the school's energy, water, carbon and environmental footprint, the effect that a person has on the environment. In other words, water is collected and conserved as much as possible. For example, the school's gardens include water-efficient drip systems.

Finally, the Muse Kitchen staff prepares 100% plant-based organic lunches and snacks daily for the students and the staff, from vegetables grown in their own on-site gardens. Their food motto is 'one meal a day for the planet' and they believe plant-based food choices are the most efficient way to reduce their global footprint and become a zero-waste community.



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Muse school, is to open internationally in many locations, due to the fact that many countries have been influenced by this movement. The first new location which is planned to open in September 2020 is in San Francisco.

### 5. CONCLUSIONS

All things considered, after studying the above we have drawn the following conclusions as to how to create a resilient way of life:

- adopt a plant-based diet & healthy lifestyle
- live a relaxed & harmonious life close to loved ones and nature
- create more green public space & sustainable infrastructure
- cooperate with both the public and the private sector so as to exploit downgraded areas
- involve the citizens in suggesting ideas and share best practices
- educate the youth so as to create future environmental stewards (doers, donors and practitioners) and environmentally concerned citizens



<https://wearerestless.org/2016/11/17/13-top-sustainable-cities/>

## REFERENCES

1. Daniels Z. et al. (2016) *English Download C1*. Oxford, England: Hamilton House
2. *Apolitical*. Ηλεκτρονική διεύθυνση: [https://apolitical.co/solution\\_article/copenhagen-raised-billions-infrastructure-without-raising-taxes](https://apolitical.co/solution_article/copenhagen-raised-billions-infrastructure-without-raising-taxes)
3. *Charge Point*. Ηλεκτρονική διεύθυνση: <https://www.chargepoint.com/en-gb/>
4. *Copenhagen School of Energy Infrastructure*. Ηλεκτρονική διεύθυνση: <https://www.cbs.dk/en/research/departments-and-centres/department-of-economics/co>
5. *penhagen-school-of-energy-infrastructure-csei*
6. *Country Living*. Ηλεκτρονική διεύθυνση: <https://www.countryliving.com/life/a41187/what-is-hygge-things-to-know-about-the-danish-lifestyle-trend/>
7. *European Commission*. Ηλεκτρονική διεύθυνση: <https://ec.europa.eu/environment/europeangreencapital/winning-cities/2014-copenhagen/>
8. *Friends of the earth Europe*. Ηλεκτρονική διεύθυνση: <https://www.foeeurope.org/school-of-sustainability>
9. *Green matters*. Ηλεκτρονική διεύθυνση: <https://www.greenmatters.com/p/muse-school-rebecca-amis-greenest-restaurant>
10. *Hygge House*. Ηλεκτρονική διεύθυνση: <http://hyggehouse.com/hygge>
11. *Improve SF*. Ηλεκτρονική διεύθυνση: <https://www.improvesf.com/>
12. *Recycle Where*. Ηλεκτρονική διεύθυνση: <https://www.recyclewhere.org/>
13. *San Francisco Department of Environment*. Ηλεκτρονική διεύθυνση: <https://sfrecycles.org/>
14. *SF Environment*. Ηλεκτρονική διεύθυνση: <https://sfenvironment.org/energy/renewable-energy/solar>
15. *SF Environment*. Ηλεκτρονική διεύθυνση: <https://sfenvironment.org/designing-a-smarter-more-sustainable-san-francisco>
16. *Smart Cities Dive*. Ηλεκτρονική διεύθυνση: <https://www.smartcitiesdive.com/ex/sustainablecitiescollective/how-can-your-city-become-more-eco-friendly/1259526/>
17. *State of green*. Ηλεκτρονική διεύθυνση: <https://stateofgreen.com/en/partners/city-of-copenhagen/solutions/the-harbour-turns-blue-1/>
18. *TD*. Ηλεκτρονική διεύθυνση: <https://www.traveldailymedia.com/green-cities-in-europe/>
19. *The Climate Reality Project*. Ηλεκτρονική διεύθυνση: <https://www.climateRealityproject.org/blog/five-sustainable-cities-making-difference-planet>
20. *The Muse School*. Ηλεκτρονική διεύθυνση: [https://museglobal.org/?gclid=EAlaIQobChMlvuGm4aW\\_5wIVh7HtCh296gDgEAAAYiAAEgL96PD\\_BwE](https://museglobal.org/?gclid=EAlaIQobChMlvuGm4aW_5wIVh7HtCh296gDgEAAAYiAAEgL96PD_BwE)



## 1<sup>st</sup> ARSAKEIO HIGH SCHOOL



21. *The Muse School*. Ηλεκτρονική διεύθυνση:  
<https://positiveimpactempire.com/article/20191126/the-muse-school-100-sustainable-school/>
22. *The New York Times Magazine*. Ηλεκτρονική διεύθυνση:  
<https://www.nytimes.com/2012/10/28/magazine/the-island-where-people-forget-to-die.html>
23. *The Telegraph*. Ηλεκτρονική διεύθυνση:  
<https://www.telegraph.co.uk/travel/discovering-hygge-in-copenhagen/worlds-greenest-city/>
24. *University of Southampton*. Ηλεκτρονική διεύθυνση:  
<https://www.southampton.ac.uk/news/2017/07/how-to-build-a-sustainable-city.page>
25. *Veg News*. Ηλεκτρονική διεύθυνση: <https://vegnews.com/2019/9/suzy-amis-camerons-vegan-school-opens-new-location-in-san-francisco>
26. *Wikipedia*. Ηλεκτρονική διεύθυνση: <https://en.wikipedia.org/wiki/Hygge>
27. *Wonderful Copenhagen*. Ηλεκτρονική διεύθυνση:  
<https://www.visitcopenhagen.com/cruisecopenhagen/copenhagen/copenhagen-sustainable-city>
28. *World Economic Forum*. Ηλεκτρονική διεύθυνση:  
<https://www.weforum.org/agenda/2016/03/how-can-we-make-cities-more-sustainable>