

# 6. 21st century Santorini - tourism, resilience, identity

## Public awareness as the focus of the National Technical University of Athens pedagogics

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### ***Abstract***

The School of Architecture of the National Technical University of Athens (NTUA) has over the past four years and within its academic discipline developed educational programs in order to raise awareness on the challenges jeopardizing the future of the island of Santorini. The much-advertised island is presently being overloaded by tourism and lacks a comprehensive plan for the sustainable management of its resources. Among the main risks and hazards threatening Santorini are natural causes (volcanic activity, earthquakes), ecological causes (toxic materials, waste management) as well as the overuse of its natural and cultural resources. The island's resilience is closely linked to the preservation of its natural uniqueness and the sustainability of its cultural landscape.

### **1. Challenges, Risks and Hazards**

In recent years numerous reports in the media feature the Aegean island of Thera or Santorini as “drowning” because of extremely heavy touristic flows to this top destination (KOLODNY 1974: 425; BELLOS 2019: www); the Greek Organization for Tourism (EOT), even, has recognized the fact<sup>1</sup> that despite the high profits and revenues, Santorini has already entered the cycle of decay and decline. The island’s resources - both natural and cultural - are being depleted beyond recovery, while the existing infrastructure is being severely challenged by touristic overuse (see Figure 1).



*Fig. 1. The famous view of the Santorini 'caldera' (own photo)*

Looking to the future, Santorini’s resilience -the capacity to assume the former shape after a force has been applied on a system- is being questioned and discussed by a number of experts within the scientific community. A study conducted by the Department for Sustainable Development of the University of Cincinnati in 2004 was one of the first to bring Santorini’s challenges into public and scientific discourse (see REILLY 2004: www).

Yet, one must note that in more than one ways Santorini epitomizes the capacity of being resilient throughout its history as

<sup>1</sup>As stated by ex-president of GNTO Betty Hatzinikolaou during a panel for the future of Santorini (REs 2018: www).

it is a place made of extreme natural outbursts, maintaining to this day unique geomorphology and many active volcanoes (KORAKAKIS 2014: www). The cycle of death and rebirth is an integral part of Santorini's identity. From prehistoric ages to today, the isle of Santorini has weathered acute transformations only to emerge with an exquisite beauty to be preserved. (DANEZIS 2001).

The sustainability triangle model applied for Santorini's development would require all three facets, society, ecology and economy to work together in a balanced way. Yet, at this point, the economy heavily relies on touristic revenue, destabilizing the other two edges of the triangle– social cohesion and ecological equilibrium.

Furthermore, culture alone permeates all three dimensions – social, economic and external – according to the freshly released New European Agenda for Culture (EUROPEAN COMMISSION n.d.: www).

While Santorini enjoys a thriving economy based on touristic revenue, the production of homegrown products does not employ its people as it did before the 1960ies. In recent years, the Therean vineyard was listed as part of the island's intangible heritage on the Greek national inventory, yet the protection of its vineyards requires an enforced regulatory frame.

Most important, heavy touristic overflows affect social cohesion, with temporary stays outnumbering permanent inhabitants. Traditional professions, mores and habits are on their way to extinction, while the scarcity of affordable housing is the reason why teachers, doctors and officers do not opt for living and working in Santorini, a fact that leads to critical shortages in staff.

The heavy air and boat traffic affects the ecological equilibrium, while the recent tragedy of the cruise boat "Sea Diamond" wreck<sup>2</sup> – a toxic bomb at sea bottom – presents a serious threat to the island's waters.

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<sup>2</sup> <https://safety4sea.com/cm-sea-diamond-a-pollution-bomb-at-the-bottom-of-aegean-sea/>

The abovementioned subjects consist of considerable challenges, risks and hazards. They are bound to Santorini's earth, waters and its subterranean layers: today's risks spring mainly from the volcanic and seismic activity in the area, while historically the extended quarry exploitation of the Theraean earth during the 19<sup>th</sup> and 20<sup>th</sup> century has left its irreversible marks on the island's strata (see Figure 2).



*Fig. 2. Layers of many different geological periods can be seen on the cliffs of Santorini (K.KONSTANTINIDIS)*

Close-to-saturated landfills progress without a comprehensive plan for waste management, while the Sea Diamond shipwreck at the depths of the islands waters poses a significant toxic hazard.

The cardinal challenge for the island's future lays in the progressive consumption of its natural and cultural resources. At the dawn of the 21<sup>st</sup> century, after having survived deadly volcano eruptions and earthquakes, tourism now threatens Santorini's very existence. Due to a lack of a comprehensive preservation framework, Santorini's unique natural environment and traditional habitat fall prey to the human disturbance of heavy touristic inflows that threaten to eat up its core natural and cultural values (LAVA 2017).

Santorini epitomizes a merging, mutually inclusive world of natural and manmade homescapes, where time and place melt into an etched, onto its soil, history. The island's history is recor-

ded in the formations and layers of its earth, while its traditional architecture –which very much influenced leading modernist architect Le Corbusier - is an inventory of ways man improvises home while balancing between a shortage of building materials and the resilience of Santorini's volcanic soil.

For architects, planners and artists, Santorini has been a source of knowledge and inspiration, especially during the 20<sup>th</sup> century, when its architecture was proclaimed as archaic by the masters of the Modern movement. Furthermore, Santorini presents a school for architects per se, as it offers a unique paradigm for the study of both, modern and traditional heritage, as well as landforms and cultural landscapes (FRAMPTON 1985).

The overuse of Santorini's resources led to the consumption of its culture, in both territories, society and landscape (LAVA & INETZI 2019) (see Figure 3 and 4).



Fig. 3. Large numbers of tourists meet every year in Santorini (own photo)



Fig. 4. Large numbers of tourists meet every year in Santorini (own photo)

## **2. Governance, Pedagogies and Public Awareness**

In 2015 the NTUA School of Architecture set out to raise awareness about the challenges Santorini is faced with for the 21st century, addressing many members and stakeholders from the local authorities, as well as members from the national and international scene, among them academics, scientists, artists, writers, students, journalists, entrepreneurs and politicians. A number of educational programs and activities, coupled with numerous mainstream activities such as exhibitions, films and literary publications, have placed Santorini in the limelight of public attention and discourse.

In particular:

During the fall semester of the academic year 2015-16 NTUA students of architecture visited the island of Santorini in order to study the traditional architecture there within the framework of the course “Architectural Analysis of Traditional Buildings and Settlements” (see Figure 5,6 & 7).



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**ΠΕΡΙΛΗΨΗ ΣΤΟΙΧΙΑ**  
 Η παρούσα έρευνα αποτελείται από μια σειρά από άρθρα, με σκοπό να αναδείξει την αρχιτεκτονική αξία των παραδοσιακών κτιρίων και συνόλων στην περιοχή της Θήρας, με έμφαση στην ανάλυση των δομικών και υφολογικών χαρακτηριστικών. Η έρευνα βασίζεται σε αρχιτεκτονικές σχέσεις, φωτογραφίες και κείμενα που συλλέχθηκαν από τον συγγραφέα κατά τη διάρκεια της επίσκεψής του στην περιοχή.

**ΟΡΘΟΓΩΝΙΑ ΣΤΟΙΧΙΑ**  
 Η έρευνα έχει σκοπό να αναδείξει την ορθογωνία ως βασικό στοιχείο της αρχιτεκτονικής των παραδοσιακών κτιρίων στην Θήρα. Η ορθογωνία είναι ένα χαρακτηριστικό που διακρίνει τα κτίρια της Θήρας από τα κτίρια άλλων περιοχών. Η έρευνα εξετάζει την ορθογωνία σε επίπεδο κτιρίου, αλλά και σε επίπεδο συνόλου. Η ορθογωνία είναι ένα χαρακτηριστικό που διακρίνει τα κτίρια της Θήρας από τα κτίρια άλλων περιοχών. Η έρευνα εξετάζει την ορθογωνία σε επίπεδο κτιρίου, αλλά και σε επίπεδο συνόλου.

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**Η Οία διατηρείται σαν ένα μοναδικό με στερεοβωμιές στοιχεία, τα κτίρια μοναδικά αλλά ταυτόχρονα τόσο όμοια με τα άλλα.**

**Ένα δόκιμο να έχουμε παντού τη μοναξιά σ' αυτό το νησί.**

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Fig. 5, 6, 7. Student projects from the course "Architectural Analysis of Traditional Buildings and Ensembles", 2015-16 (NTUA photo archive)

The course resulted in a conference and exhibition in the capital of Santorini, Fira, the following spring 2016. With the participation of the mayor Nikolaos Zorzos together with local architects and artists, the issues endangering Santorini's contemporary identity were discussed in length (see Figure 8 & 9).



Fig. 8. Conference and exhibition on the future of Santorini, May 7, 2016 (own photo)



Fig. 9. Mayor N. Zorzos at the podium of the conference (own photo)



In early spring 2016, a workshop for students of architecture at NTUA was conducted as part of the events staged for the 50-year-commemoration of Le Corbusier's death (see Figure 10).



Fig. 10. Poster from the screening of the short film "Modern Santorini" (own photo)

As Le Corbusier was inspired by the architecture of Santorini when he visited the place during the 4<sup>th</sup> CIAM in 1933, students traced the origins of that encounter based on bibliography and the footage that Moholy Nagy had compiled during this visit. The work was edited in the form of a short film entitled "Modern Santorini", which was launched in June 2016 at the BIOS theatre in Athens (see Figure11).



*Fig. 11. Screening of the short film "Modern Santorini", BIOS, Athens, June 27, 2016 (own photo)*

The film was featured that same year at the Athens Documenta - an international art show usually staged in Kassel, Germany - and was uploaded on the internet. The project received further publicity from the media<sup>3</sup>.

The academic year 2017-18, an elective course for architecture students got introduced to the curriculum of the NTUA School of Architecture. The course, established by Dr. Riva Lava, was entitled "Form (Morphe) vs Inhabitation: The case of Santorini" and its scope was to foster research by design.

The course examined the natural and manmade environment of Santorini, focusing on the morphology born out of the volcanic and seismic underground laboratory of the insular complex, as well as the condition for the inhabitation of the cliffs and the valleys with the use of local materials. The topomorphy of Santorini and the forms of inhabitation it implies, consisted the thematic for the study of the Theraean cultural continuum from the prehistoric house of Akrotiri, the traditional and modern heritage, up to the contemporary condition, in order to interpret the local architectural idiomatic expression during the 20<sup>th</sup> and 21<sup>st</sup> centuries.

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<sup>3</sup> A number of Greek news websites, such as LIFO, featured the film "Modern Santorini" within the framework of the events commemorating Le Corbusier's death.

Its pedagogic frame encourages students to develop interpretations of the Theraean cultural landscape and transcribe their work into proposals for a better future on the island. At the same time, the projects aimed at raising awareness on the current conditions shaping life in Santorini among inhabitants and visitors.

The first 18 students who participated spent four days on the island conducting in situ research and developing 18 different approaches on the future of Santorini. Each project was based on a working hypothesis which brought together landforms and new possibilities of inhabitation by employing concepts such as the outline and contour of place, the transformation of geomorphological substrata, structural minima of inhabitation on the Theraean ground, inhabitation in transformation, traces, trajectories and 3D grids. Other working schemas employed were: the meeting of time and moment, the deciphering of the lands shape, allegories, the sound of poetry, the porous quality of land as a tactile experience, pareidolia and parallax, as well as the narrative as a way to construct space. The last assignment of the course pertained to the design and materialization of the exhibition of the works with the hope of establishing dialogue and exchange with the local people, as well as the visitors of Santorini.

The projects urged local agents and municipal authorities of Santorini to empower educational institutions and to take action in order to balance the heavy tourist activities with heritage and cultural networks.

The course resulted in an exhibition hosted by the Theraean municipality of Pyrgos, and it lasted from May until June 2017 (see Figure 12,13 &14).



Fig. 12. The group of NTUA architecture students at the gallery in Pyrgos, Santorini, May 25, 2017 (own photo)



Fig. 13. Poster of the exhibition "Santorini Minds-capes" (own photo)



Fig. 14. The exhibition "Santorini Minds-capes" (own photo)

The compilation of its pedagogics and projects in a textbook for academic use entitled 'Santorini Mindscapes' which is currently under publication by the NTUA publishing house (see Figure 15).

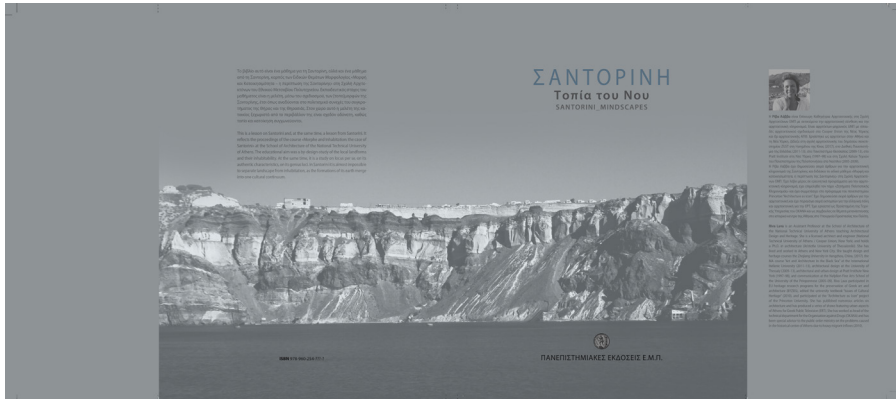


Fig. 15. Cover of the educational text book "Santorini Mindscapes" (upcoming) The exhibition was enthusiastically received, while it stirred public discussion about the potential of the island and its future. (NTUA photo archive)

The second year of the elective course in 2018 was dedicated to the newly coined term 'cultural carrying capacity'<sup>4</sup>, an expanded term describing the capacity of Santorini to adopt global travellers' cultures without losing its own physiognomy. A consumers' culture of 'things made easy' establishes populations of visitors who will move in a coordinated fashion via shuttles, taxis, cars and limos to reach their hotels. Such crowds will use pools for swimming and capturing the sea from afar. Place breaks up into a network of advertised spots and photogenic corners serving as sunset decks. A process of cultural territorialization begins (HATZIYIANNAKI 2011).

Students visited pre-elected sites on the island and developed their research by design with a focus on cultural carrying capacity. After the completion of the course, a number of students presented their findings in the form of academic papers and

<sup>4</sup> The carrying capacity of Santorini has been subject of a collaboration of an expert team from the "Elliniki Etairia – Society for the Environment and Cultural Heritage" and the Municipality of Santorini, 2018-19 with the participation of NTUA Architecture professors K.Serraos and R.Lava

disseminated the research during a special session dedicated to Santorini at the International Congress “Changing Cities IV” which was staged in Chania, Crete, in June 2019 (LAVA 2019: www).

In the same year, 2019, the 58<sup>th</sup> volume of the Greek literary periodical “de\_kata” was dedicated to the contemporary culture of Santorini (see Figure 16).



Fig. 16. Cover of the literary magazine “de\_kata” dedicated to the contemporary culture of Santorini (de\_kata magazine photo archive)

The issue aimed at bringing to the present-day front authors, poets, photographers, architects, painters, historians, archaeologists, geologists, as well as ordinary people who are part of the islands cultural continuum in order to highlight the production of contemporary Therean culture. Numerous NTUA architecture students and graduates participated in texts and project presentations.



### 3. Conclusions

Assessed against the sustainability triangle model, Santorini's resilience and sustainable development is strongly linked to its cultural cohesion, the framework which holds together the place's character and uniqueness. Regarding its social tissue, travellers and visitors outweigh the indigenous people on the island today; as a result, mores and rituals may become extinct, while traditional art and architecture suffer the mega-invasion of a 'room to rent' culture.

Santorini's natural landscape, because of its uniqueness and beauty, carries the heritage value of a cultural landscape; ecological imbalance and toxic debris today pose the very body of Santorini under threat. As far as the island's economy is concerned, tourism overwhelms traditional production of home-grown goods and thus depletes the natural habitat of the Thera-an insular complex.

Culture – the way people live and do things – is strongly affected by the imbalanced growth of global tourism in Santorini. The NTUA educational initiatives aimed at bringing the cultural potential of Santorini's place and people to the forefront and harness its power for social cohesion and well-being, as well as for the enhancement of the quality of the touristic experience.

Although some habitually argue that the academia does not change things fast enough by effectively steering politics, we would like to state that we disagree and express our firm belief that through education and pedagogy we see the only true way to redefine the issues of humanity in their totality and radicality. In other words, by delving into the deep structures of each cause, we may be able to reframe politics and create consensus for communities to see and share. The utopias of fresh student projects, can -surprisingly enough- create new mental or imaginary entities (HARARI 2016), new narratives about place and culture and cater the 'glue' for a sustainable community of deed and thought.

## **Bibliography**

- BELLOS I., 2019: Με υψηλό κίνδυνο τουριστικού κορεσμού η Σαντορίνη, Kathimerini daily paper of 18.8.2109, 4.
- DANEZIS, I.M., 2001: SANTORINI\_Thera, Therasia, Aspronisi, Ifestia. ADAM Editions, Athens 2001
- EUROPEAN COMMISSION, n.d.: Strategic framework - European Agenda for Culture, [https://ec.europa.eu/culture/policy/strategic-framework\\_en](https://ec.europa.eu/culture/policy/strategic-framework_en), last accessed: 17.10.2019.
- FRAMPTON, K., 1985: Modern Architecture: a Critical History, London: Thames and Hudson.
- HARARI, Y. N., 2016: Homo Deus: A Brief History of Tomorrow, London: Harvill Secker.
- HATZIYIANNAKI, Z., 2011: Santorini: a fleeting island, Geografies (18), 81-92.
- KOLODNY, E., 1974: The population of islands of Greece: essay on the insular geography of the eastern Mediterranean, vol.1, Aix-en-Provence: Edisud editions, 425-428.
- KORAKAKIS, N., 2014: Santorini: Volcano History | Σαντορίνη: Ιστορία του Ηφαιστείου, <https://www.youtube.com/watch?v=ag18yf9u7e4>, last accessed: 13.09.2019.
- LAVA, R., 2017: Santorini, down and across - how access re-frames insular identity. Proceedings of the Changing Cities III International Congress, Syros 2017.
- LAVA, R., 2019: From chthonic to universal: how Santorini evolves into a smart hub, <https://changingcities.prd.uth.gr/cc2019/index.php/information/pre-organised-special-sessions/135-prof-riva-lava-1>, last accessed: 17.10.2019.
- LAVA, R. & INETZI, S., 2019: From order to disorder: The case of the Santorini habitat. Proceedings of the Changing Cities IV international congress, Chania & Crete, June 2019.
- REILLY, M.B., 2004: Students Help a Drowning Island Stay Afloat, Department for Sustainable Development of the University of Cincinnati, <https://www.uc.edu/news/articles/legacy/enews/2004/07/e1828.html>, last accessed: 25.10.2019.
- RES, 2018: Ειδική εκδήλωση για τη Σαντορίνη στο Μουσείο της Ακρόπολης, Kathimerini daily paper of 28.11.2018, <https://www.kathimerini.gr/997364/article/epikairothta/ellada/ei-dikh-ekdhlwsh-gia-th-santorinh-sto-moyseio-ths-akropolhs>, last accessed: 17.10.2019.