Opportunities and Challenges for a Sustainable Cultural and Natural Environment in Samoa

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Introduction

As an archaeologist, museum curator, antiquarian and university lecturer I have been engaged in research on Pacific prehistory and Island archaeology for the past 30 years. I first came to Samoa twelve years ago and discovered wonderful islands and a hospitable and proud people whom have faced and face challenges, but as far as I understand, also have great opportunities for the future.

The topics of this conference are about the Challenges and Opportunities on how to create a Sustainable Cultural and Natural Environment with the focus on small islands’ issues and especially for the Independent state of Samoa.

I would like to set the tone for this paper with a quote from the Danish philosopher and existentialist Søren Kirkegaard:

Life can only be understood backwards; but it must be lived forwards.

I suggest that it is equally important to investigate and learn from the past in various ways as to engage in current issues. Then, hopefully we stand a better chance to create a platform for a sustainable culture and natural environment where justice is and piece rules. However, the
understanding of the past is not a simple matter and there are possibilities for multiple opinions and interpretations, which are tied to the socio-cultural environment that we are born into and the values and customs that prevail in the society that we identify with. On a global scale we have formed the United Nations were we as the human race has agreed on guidelines and charters on social justice and conservation values in other words; the need to care for other people and the natural environment. At national level most countries and local communities have written and unwritten laws on how to behave towards each other and the natural environment but these values and laws have been complicated by colonialism, capitalism (e.g. greed etc.), violence, religion and ethnicity etc.

Since I’m an archaeologist it is natural that I look back but my aim is also to understand the path that is leading from the past to the present and further into the future. As investigators of the tangible cultural; as old graves, monuments or settlement activities etc., the agenda of archaeologists is to understand, interpret and share how people lived in the past and what ideas and customs that prevailed. With these aims in mind we have to investigate the whole setting, and interrogate what kind of cultural and natural environment did these monuments and remains prevailed in. In doing so we need interdisciplinary approaches and learning from the past to meet future challenges. I here agree with the Swedish professor in environmental science and historian of ideas Sverker Sörlin when he and colleagues say that;

"Specifically, we need to grab the "learning from the past" by the horns. In the end, what else can we learn from? In climate science, the study of past climates combined with contemporary models is becoming a powerful tool for constraining what is plausible and possible in hypothesising about the future. …Obviously process understanding of biogeographical systems is different from an understanding of the workings of society, but history nevertheless tells important things about socio-ecological change that at present are not being explored and interrogated. Equipped with our understanding of Earth
systems and human behaviour, and our ability to model complex systems, we can seek stronger insights into the non-linear, evolutionary relationships between humans and the rest of the nature. (Cornell et al 2010:426).

I would first like to linger on the concepts of sustainability, cultural and natural environment since they are key issues at this conference. At a first glance these concepts can be thought of as unproblematic and straightforward but there are some challenges and possibilities here that I would like to raise.

**Sustainability**

The word sustainability has been a keyword for the past two decades and it has an aura of positive thinking on how to manage one’s private and/or the Earth’s resources in a good and sensible way. It is important for our representatives and leaders of the local, national and global communities, as well as the private person, to understand that we can’t go on to waste the resources of the planet. The exponential growth of the population paired with the current expenditure and carelessness (where some countries consume and waste more than others) could lead to that we don’t have resources to feed all and this could lead to violence and fights. However, in looking backwards there are no societies that have been ‘sustainable’ since they have changed and developed in various directions both for the sake of good or taking on negative and destructive paths. I argue that change is the ‘primus motor’ and necessary for the survival for the human race, but we have to investigate ways to make these changes sensible and beneficial (e.g. human agency is important) and thus including both the cultural and natural environment. There have recently been suggestions to use other words instead of sustainability such as viable, future-friendly, upcycled, ethical, progressive, healthy, in harmony etc., which capture the positive sense of the word but also include change into the concept to move away from the sense of stagnation;
Culture and Cultural Environment

Moving to the words culture, culture environment and cultural heritage these are not at all straightforward concepts but culture or cultural environment can be explained as; The system of shared beliefs, values, customs, behaviours, and artefacts that the members of society use to cope with their world and with one another, and that are transmitted from generation to generation through learning. Culture shapes the way we see the world. It therefore has the capacity to bring about the change of attitudes needed to ensure peace and ‘sustainable’ (future friendly?) development which, we know, form the only possible way forward for life on planet Earth. Culture is a crucial key concept to understand and to bring into the discussion to be able to solve future crisis. When it concerns cultural heritage UNESCO has the following definition; "The cultural heritage may be defined as the entire corpus of material signs - either artistic or symbolic - handed on by the past to each culture and, therefore, to the whole of humankind" (Draft Medium Term Plan 1990-1995 (UNESCO, 25 C/4, 1989: 5).

In the Cultural Policy of Samoa the word culture is translated to fa'asamoa and/or aganu'u, which often are used as a synonym for “traditional Samoan culture”, not really including contemporary developments nor the culture of other groups living in Samoa. Fa'asamoa, is explained as a Samoan unique way of life, how people deal with their own environment, not only the land and the sea, but also among themselves with special reference to gift giving and re-distribution of fine mats (ie'toga) and food. According to the policy aganu’u stand for social rules, often associated with the power of the village council and in terms of governing social cohesion. Culture can also according to the policy be referred to as faia – the relationship between people, families and villages to each other, to their titles and to their lands. Using these Samoan definitions the words cultural heritage management can create confusion of cultural heritage management in the Western world. In regard to this issue I would like to cite my colleague and distinguished Samoan Scholar Professor Malama Meleisea what he was writing already in 1980 ; "We want the forest yet fear the spirits:
Culture and Change in Western Samoa’ (E manā’o I le vao, ae fefe I le aitu). In this text he discuss a key point on the view of culture in Pacific context and very sensibly he is saying that culture in itself cannot be preserved but is moving on and changing but historical cultural values can and should be preserved. These historical cultural values include tangible heritage such as archaeological sites and old buildings, and intangible values as traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts. The difference between the historical tangible and intangible expressions is that the former can easily be destroyed if not managed and protected and at least investigated. The latter is usually slowly (or sometimes rapidly) subjected to changes since they are working within the living culture. I would say that Meleisea make an important point here which is also intune with the quote from Kirkegaard (see above).

In my opinion it will become more and more important for the Independent State of Samoa to initiate a critical discussion on cultural heritage its management. A natural arena for these discussions is The National University of Samoa, Centre for Samoan Studies and networking with government bodies as MESC, MNRE and international organisations as UNESCO etc. According to me; issues to discuss are what should be managed, how should it be managed and protected, and by whom? Legal protections and management of archaeological sites are important, but equally important, especially since Samoa has the customary land tenure, is for the State to motivate and provide economic incentives and information based on archaeological research to the local communities, the villages and village councils, so they could be custodians of the sites and that the protection of sites also are present at the grass root level. Unfortunately there are several cases where the question of ownership to land and titles has been an obstacle to the management of archaeological sites. Land is of course a finite resource for a growing population in Samoa and
Samoan citizen overseas and the customary land tenure system clash with freehold property rights. This has for example happened with the prehistoric site in Letolo plantation in Savai’i which I would describe as equivalent to the ‘Machu Picchu or Nan Madol’ of Polynesia. This is the large scale abandoned settlement in the inland of Palauli with the central place, the huge Pulemelei stone mound which is 65x60 m at the base and 12 meters high (see Figure 1) (Martinsson-Wallin 2007, 2011a,b).

![Figure 1. The cleared Pulemelei mound during the excavation in 2004. Photo Helene Martinsson-Wallin©](image)

Parts of Palauli, e.g. the Letolo plantation was surveyed in the 1970s, when the area was in operation as a cattle farm and for copra production, and thus it was possible to see the ruins of abandoned ancient villages (Jackmond 1977-78). Today, since the plantation is not in operation or managed the remains of old platforms, walkways, walls etc. are totally overgrown and covered by the secondary canopy. However, it is not just at the plantation site that the ancient settlements are found but in the whole area of inland Palauli are full of archaeological sites. It is estimated that these villages were abandoned around the 18th century in favour of a village location closer to the
sea and trading possibilities with the European, but fights and hostile activities and natural disasters can’t be ruled out as causes for the abandonment. More research needs to be done in the area, especially to investigate the relationship of the cultural and natural landscape.

Our previous archaeological excavation in the Letolo area point to that the inland part was settled at least 2000 years ago and that Pulemelei mound started to be built as a 3 meter high and 65x60 meter large stone platforms, probably as an important high chief’s house platform, around 900 years ago (Martinsson-Wallin et al 2007). Around 400-500 years ago the mound was added on to its current enormous proportions and with its added walkways it probably that it at this time functioned as a ceremonial and council platform (Martinsson-Wallin et al 2007). The one(s) who had ownership of this mound and entered the top platform had a clear view of Manono and Upolu and the south parts of Savaii and the landing at Satupaitea and Vailea. This made it a very strategical place. There are indications that this last construction stage, which has been dated by us to 2c. 16th century, could have connection to the rise of the Ta’faifa but more research is needed in the area and also using the oral traditions.

The site was the scene for large scale clearing and excavation by me and colleagues during 2002-2004 and minor excavations in the area in 2006 (Martinsson-Wallin et al 2007). One thing is quite clear and that is that the whole inland of Palauli is a veritable treasure to do archaeological research, which would enrich Samoan culture in a major way. Here the National University of Samoa, which is the only indigenous university in Oceania where Pacific Islanders now have a chance to become archaeologists, could take the lead and explore the Samoan past in various ways.

Human resource capacity building to get Samoan experts in this field of knowledge, and building strong infrastructure to manage the tangible and intangible historical cultural values are necessary
steps to strengthen identity of the Samoan society. It is equally important that information about these prehistoric sites has to reach out into the communities where Samoa actually already has good arenas, as the village councils and the women committees etc. This can also provide opportunities to generate income though cultural tourism, which is the most fast growing tourism in the world. Concerning cultural tourism UNESCO points to the fact that there is a new generation of travelers that don't simply see the places they visit, but wholeheartedly embrace them, love them and never forget them and it is also up to the visitors to protect these places. To create a ‘sustainable’ or future-friendly tourism that is in harmony with the local culture is a great responsibility and needs planning, knowledgeable human resources, monetary resources and long term investments.

Nature and natural environment
The concept of nature and natural environment seem very unproblematic at first glance. Most of us think of nature and environment as the landscape with trees and grass, the sea and the air that surrounds us and were all the animals reside. There is also usually a strong notion that the surrounding environment always have looked the same and not changed in any way. However, if we look backwards using the scientific views of geology and archaeology we know that large parts of the planet have been covered by ice during the Ice Ages with warmer periods during Pleistocene and Early Holocene over the last 100.000 years and the sea level in the Pacific have changes over 120 meters since water was bound as ice and then melted. This resulting in that huge land areas in Oceania that previous were covered with water were exposed for example in Indonesia to form a continent that has been called Sunda and Papua New Guinea and Australia was one continent with a land-bridge that has been denominated Sahul (Bellwood 1979). Due to finds of very old skeletal remains (c. 125.000 years old) in these areas show that was the home for the first Hominoids that wandered out of Africa. Remote Oceania on the other hand has not been populated until much later. The earliest site in Samoa is c. 3000 years old.
There are also other natural forces that changed the landscape, as shoreline displacement where the sea and land due to vertical movements in the land surface; the isostasy and the horizontal movements in the sea; the Eustace can cause regressions or transgressions. In other words, land seems slowly over hundreds of years to sink or rise in the sea. What I would like to stress here is that there have always been long and short term natural changes of the environment on our planet that have been natural in the sense that humans have not affected them and some changes are still due to natural forces without human actions. For example, Samoa at least the western part of Upolu is sinking with an estimated rate of 1.4 mm/year. This has caused the oldest archaeological site, the around 3000 year old Mulifanua settlement to be covered by the coralline crust, formed as beach rock in a shallow lagoon, and then eventually covered by deeper water. The site was found when the Mulifanua harbor was dredged in the early 70s for making the channel to the ferry camp deep enough for the new ferries. However, the shoreline displacement and tectonic activities in the area makes it hard to predict if the same pattern is to be found around the whole coastline.

Today it is established that there are rapid climate changes due to human actions and there are barely any natural environments left untouched by humans. Many of you have experienced changes in the coast line through landfill around the coast of Upolu and Savai’i at the expense of the Mangrove. Now we have come to understand that Mangrove is the best coastal protection for storms and land erosions and lately several projects has been made in Samoa to conserve the Mangroves.

A definition of a virgin forest is that it should have been un-affected by humans for at least 300 years. There are very few such forests remaining on the planet. If we take the example of the Amazon’s jungles most of us would think of this as mostly a virgin forest that is very important for the production of oxygen on our planet but scraping on the surface of this dense jungle,
archaeologist have now uncovered that even these remote places have been populated in the past in a larger scale than previously thought and parts of the jungle was cut down for planting purposes in prehistoric times (Silverman and Isbell 2008). What we also know from archaeological research on several islands in the Pacific is that some species, especially sea and land birds have become extinct when people have colonised these islands due to overexploiting when hunting for eggs, meat and feathers (Steadman 2006). This also happened here in Samoa where the Manumea have become extinct but there are now conservation programs to save the remaining indigenous birds.

There are also large scale changes and extinction of species in all parts of the world and today we can say that we have moved from the geological phase called the Holocene period (last 10,000 years) into the Antropocene, where nature has been transferred to culture and humans greatly affect what we call the natural environment. One example of an ecological catastrophe that is very populist have been pushed forward by the geographer professor Jared Diamond in his books about collapse of societies (Diamond 2005). He discusses what happened on Easter Island (Rapa Nui) the tiny Polynesian island in the East Pacific, when humans colonised the island. Archaeological research has shown that prior to human colonisation around 1000 years ago, it was covered in lush vegetation and has millions of large palm trees (Meit and Bork 2010). It has been established by archaeological research that people who first colonised these islands where Polynesians from the West, probably the Mangareva/Tuamotus area (Martinsson-Wallin and Crockford 2002). They started to cut down the forest to be able to plant and feed themselves. Through religious believes (agency) they focused on building large temple grounds where they raised over sized statues in honour of their chiefs and that caused them to cut down even more trees. The fast and intensive changes of the natural environment lead to an ecological unbalance, depleting the resources, eroding of the soils, which in turn lead to violent fight and a sort of civil war in the 16-17th centuries. However, what Diamond forgets to add to the story is that the Rapanui people actually survived
since they came up with new solutions to plant in a way that stopped the erosion and added nutrient to the soil and actually creating new soil from crushing stone.

What I would like to point out is that of course we can learn from the past and that we should treat our planet in a more careful way and understand that we are part of an ecological system but also that there is hope for the human race in that we are creative and can come up with solutions.

Education

1. To be moderate in the use of Earth’s gifts but understand and use the gift of human’s ability in a plentiful way.

2. To be creative and hospitable, and to find new solutions yet without losing one’s identity.

3. To reflect upon ourselves and our culture and values as well as other’s.

4. To be a global and local citizen at the same time.

These are not easy tasks and the close and everyday issues have a tendency to have precedence in our life’s but sooner or later we are all going to be affected by climate change, population growth and diminishing resources. These are the future challenges that we will meet whether we live in Samoa, New York, Istanbul or as me on the Island of Gotland in the Baltic Sea, Sweden, where we are surrounded by the most polluted sea in the World. These future challenges need creative solutions and to achieve this we need to provide young people with education and new opportunities. Here the universities and the higher education have a great role to play and I would like to share a quote from Nelson Mandela which I have on my office door;

Education is the most powerful weapon, which you can use to change the world.
Higher education based in knowledge: both ontology, (the study of the nature of being and what you can know) and epistemology (the study of knowing and how we come to know) and it is not just to transfer certain knowledge or skills and know-how like a craft specialisation but also to question how we know what we know, to be able to come up with new creative answers and solutions. To invest in good education at all levels is a way to provide people with possibility to grow and create opportunities for solutions for the future problems. Important in this task is to identify the problems and understand the milieu or setting where you find the problems. You have to question if this is a global or local issue that have to be resolved. Here the small islands and island states in the Pacific and around the world can learn from each other even if the socio-cultural and natural environment and historical trajectories vary, we who live on small islands have much in common. Here the National University of Samoa has a great role to play as an actor on the local, national and global arena and for example hosting this important Samoa III conference.

Conclusion - A Personal Reflection

I would like to end this paper with a personal reflection on why I as a foreigner from the other side of the world am engaged in archaeology and cultural heritage management in Samoa and the Pacific and how I see the future for these disciplines here. Where I come from we have always admired great travellers and the Polynesians have and are still great travellers. The Pacific have also for a long time had a romantic aura for us Scandinavians that started out already in the 18th century, the time of Carl von Linnaeus (who was a great scholar at Uppsala University and father of modern taxonomy and he is also considered one of the fathers of modern ecology) and his two disciples Anders Sparrman and Daniel Solander who sailed with Captain Cook and collected species. Then of course I have been personally inspired by Norwegian Thor Heyerdahl, sr. Kon-Tiki who got world famous in 1947 when he drifted with his Kon-Tiki raft from Peru to the Tuamotous Island Raroia. He and also his Swedish colleague aboard the raft the Ethnographer Dr. Bengt Danielsson, who lived in Tahiti a long time and was, attached to Bishop Museum and the
University of the South Pacific and Ethnographic Museum in Stockholm, became mentors to me. Heyerdahl was the first to bring modern archaeology to Rapa Nui (Easter Island) and East Polynesia in the mid-1950s and I have had the great opportunity to work at the Kon-Tiki museum and him from 1987 until his death in 2002. A last effort of Thor Heyerdahl towards the investigation of Polynesian prehistory was when he at age 87 climbed the Pulemelei mound just a couple of month before his death, to initiate the research at this site that I have continued. Starting out this investigation I also heard the distinct words from my good friend and colleague, one of the first Pacific Island archaeologists Sonia Haoa Cardinali from Rapa Nui, ringing in my ears; you started this you have the responsibility… This has been an eye-opener for me and I understand that she means all that I represent from the Kon-Tiki Museum and being a western trained archaeologist and not just me personally. This has been the inspiration, incentive and driving force for me that together with colleagues at The National University of Samoa and Centre for Samoan studies organising a joint educational exchange with my former University of Gotland (a small island university) who merged with Uppsala University in 2013. Within this exchange we have been able work out a programme for archaeology and cultural heritage management at the National University of Samoa, which was initiated by support from the Linnaeus-Palme foundation from Sweden from 2005-2013.

The programme is now established but there is still no coherent heritage law in Samoa that protects and preserves the tangible or intangible cultural heritage. Tangible cultural heritage as Letolo abandoned settlement and central place Pulemelei mound, that has outstanding universal values as well as being an important historical heritage site in Samoa, have virtually no legal protection. This and other prominent archaeological sites as for example the Laupule mound at Fagali’i, star mounds at Aleipata, historical graves at Mulinu’u, Maliefono council platform at Sale’imoa, mounds and walls on Manono and house mound and pigeon mound at Sa’anapu etc. could potentially all be important archaeological visitor’s sites in Samoa for the benefit of the local
community and the State of Samoa. To make this happen it is important with education and information that these sites exist and to create a sense of Samoan ownership and interest of these great archaeological sites and the importance of the past achievements of Samoans.

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References

Bellwood, P. 1979. Man's conquest of the Pacific: The prehistory of Southeast Asia and Oceania, Oxford; Oxford University Press.
Cultural Policy draft Samoa (MESC) 2010
Australian National University e-press.
Meleisea, M. 1980. ‘We want the forest yet fear the spirits: Culture and Change in Western Samoa’. Pacific Records. Suva: University of South Pacific Press.
Miet, A and Bork 2010. Humans, climate or introduced rats – which is to blame for the woodland destruction on prehistoric Rapa Nui (Easter Island)? Journal of Archaeological Science.