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Deluged Fieldsites, Traumatised Selves: Environmental Trauma and Its Implications for Disaster Research in Anthropology

Eleni Kotsira
Alma Economics, UK

Abstract
What can the contribution of anthropologists be when working with communities facing post-disaster trauma? What are the role, responsibilities and – equally important – needs of the anthropologist in a post-disaster site? What are the processes for conducting fieldwork when a disaster hits and the ethics of researching a community struggling with its wellbeing?
This paper addresses these questions based on ethnographic material gathered during and in the wake of an unforeseen deluge that hit Samothráki, a remote island in NE Greece, in September 2017. I am employing two quite different types of data, responses to an online survey and (auto)ethnographic observations, to discuss the experience of post-traumatic stress following a disaster, as this was expressed in private and public spaces. Instead of pathologising trauma and treating people as its passive recipients, the concept of 'environmental trauma' is introduced as a dynamic, formative process through which disaster survivors resituate themselves and consider their way forward in a future of climate crisis. The paper also raises important ethical issues related to conducting research in a site and/or with people affected by a disaster, and concludes with providing three key recommendations for a trauma- and disaster-informed anthropological research, particularly useful for teaching and training.

Keywords: Post-disaster trauma, post-traumatic stress, environmental disasters, climate change, research ethics, autoethnography

Introduction (Or waking up from a bad dream)

> *I was sitting with Andromédα[1] at a café by the seaside at the port of Kamariótissa, the waves crashing against its foundation. The windows were looking to the sea. We noticed from afar the ferry entering the port. The weather soon changed and the sea filled with brownish water. It was raining. Water topped the windows obstructing any other view and, at the other side of the café, the door was covered to the top by a brownish torrent rushing across the road beside it. Together with other people, we found ourselves pushing against the door, using the weight of our bodies, so it would not collapse. The surroundings faded and I woke up dry and safe in a bed. Andromédα was there explaining to me how we escaped. The ferry should have dropped its anchor too by now, she said.*

I wake up in my own bed, in reality. I look around, still distracted by the surreal world my dreams just created for me. It is 2:00 in the morning and it seems that I fell asleep late in the evening. Rain is on the forecast for the following two days. I think what the date is, still fighting the dream's influence. It is 7 November 2017 – about a month and a half since the deluge that hit Samothráki; a deluge that has apparently settled in my subconscious, I come to realise as I shake the sleep's illusion off me.

Just like that night (the night between the 25th and the 26th of September 2017) I am in the island's central settlement, Chóra. Though now everyone pays so much attention to the weather forecast. Not that paying attention on the night of the deluge would have made a difference – the meteorological service had magnificently failed to predict the worst rainfall in the island's known history. 'Light rain' was on the forecast for that night; instead we were faced with a downpour worth of a year's rain, landslides from the eroded mountain standing above Chóra and tons of mud – all of which entered into people's homes and businesses, municipal buildings and the island's hospital, covered the traditionally cobbled alleys of Chóra and travelled some 5km to the shore,

[1] All names used are pseudonyms.

finding escape into the sea. All villages on the island were affected by the deluge, though it was Chóra that experienced its first flood, again in known history. Due to the village's hillside position, Chóra was known to not flood, the water rushing through its alleys, always moving downwards, and thus away from the village. 'Our soul is covered with mud' Perséas, Andromédα's husband, told me soon after the deluge.

I sit back in the bed and think again of Perséas' words – they hit a nerve, like the first time I heard them. They hit a nerve as I am considering our circumstances. The life on a small island such as Samothráki can be repetitive in itself: a surface area of 180km[2] with a remarkable altitude of 1,611m, thus few roads to drive on and a specific number of places to come across; less than 3,000 permanent residents, thus limited activities to get involved in and few topics to discuss in everyday chit chat; and a remote location in the North East borders of Greece, with a single, unstable and expensive connection to the mainland across[2]. Some islanders, even though permanent residents, have left to spend the upcoming winter elsewhere, away from the unwelcome stimuli of the deluge; for the rest, there is no escape. Regardless, Perséas' words hit a nerve for yet another, fundamental, reason: they include me, 'our soul' encloses my soul.

The weather has worsened since I woke up and now the lights die across the village – a typical by-effect of severe weather in the area. Across my room, adorning the mirror, is a string of battery-powered lights. Initially bought for decorative purposes for the apartment I would move into on Samothráki, now having proven perhaps the most useful of the purchases I had made before coming to the island. The battery switch is already on – as it is on right after every sunset – so I do not move from where I am sitting. Observing the stillness of the night, I return to how words such as 'we' and 'our' acquired such an importance for me within such a short time in my fieldwork.

I moved to Samothráki on 22 September 2017 and though I had been familiar with the island for a few years before the official commencement of my doctoral research, a research that was intended to be something quite different from what it would eventually become, I did not have any particular acquaintances in Chóra; I was a stranger. On the night of the deluge, the apartment I was renting back then flooded badly, myself as a result having to be rescued by my neighbours (Perséas and Andromédα) and being sustained by the islanders for days following that. On that night, I abruptly transitioned from a stranger to a familiar for the community of Chóra – just as abruptly as I had fallen in the torrent rushing outside my apartment that night. Helena Wulff (2007) notes that "[a]ccess to the field usually involves an emotional event" (p. 3) that can be a catalyst for the positionality, acceptance or rejection of the fieldworker. In her case, that occurred during an argument with the director of the ballet at the Stockholm Opera which, instead of resulting in her exclusion as she feared, made the director see her as a member of the troupe exactly because of her expressing intense emotions, like everybody else did backstage. In my case, I understand now, being accepted in the field was the result of my evacuation that night, the shared experience of the deluge as well as the impact this had on 'us' going forward.

At the same time, methodologically, this was an opportunity to, as Nigel Rapport (2001) writes arguing for a post-cultural anthropology, create and remain "engaged in personal, bodily relations" (p. 100) with the community of Chóra. While everyone was experiencing their emotions and the impact these had on their lives in unique ways that no other could ever know and feel as such – as Rapport argues "it is surely true that no other knowledge matches the potential self-knowledge that the body possesses (…) and no other can know it in the same way" (ibid) – all bodies were sharing key aspects of knowledge creation: the same environment (Chóra) and the same event (the deluge). Thus, sharing two aspects of the triptych that Rapport (2001) identifies as self – world – other (objects or events in interaction with one's body) which are "bound up together, mutually implicated" (ibid) meant that by embarking from my personal experience I could approach the experience of others.

I stayed and conducted research on Samothráki for 15 months following the deluge, a period during which almost everything in Chóra was compared to and assessed in relation to the deluge. This is evident in fieldnotes, interviews and other types of primary data collected, even images I have taken, where in the background of whatever photographed, there is almost certainly something standing as a reminder of that night: imprints of mud on walls and furniture, eroded soil, uprooted trees and flora, broken infrastructure and seemingly 'haunted' buildings.

[2] The ferry connection improved in the years that followed.

Within the broader picture, the deluge on Samothráki was one of the first – if not the very first – extreme weather events leading to a disaster, in a series of continuously increasing environmental disasters in Greece as the climate crisis deepens. Samothráki was declared in a 12-month state of emergency as a result of the said deluge.

This article discusses in particular a section of the results gathered through an online survey shared with the islanders a year since the deluge had occurred, answered by 52 people (Kotsira, 2021a), alongside (auto)ethnographic observations from fieldwork as well as reflections beyond the fieldwork period. Discussion is focused on the experience of post-traumatic stress in the post-deluge community of Chóra, in its private and public spaces. I suggest that the trauma occurring in the aftermath of an environmental disaster, when shared and revisited, can have a formative effect for individuals and communities as both are called to live in an era of human-induced climate change and prepare for more extreme weather events in their future; I have called this 'environmental trauma'. In analysing the research process behind the emergence of environmental trauma, this paper also addresses important ethical considerations related to conducting research in a site and/or with people affected by a disaster, including prioritising the participants' mental health and wellbeing, securing the safety of researchers in the field, and handling the unconscious oversharing of information when the line between the researcher and the researched is blurred. I conclude with three key recommendations for a trauma- and disaster-informed anthropological research, as these directly result from the material discussed in this article, particularly useful for preparing researchers for their first long-term fieldwork, but also relevant to prior stages of anthropological training: selecting data collection methods that are suited to the circumstances and needs of the population researched; not pathologising trauma and victimising those experiencing it, with the bespoke framework of environmental trauma provided as an alternative; introducing core skills so anthropologists can support their research participants and themselves during a crisis, particularly when working in areas where the climate is known to be a risk factor or (mental and/or physical) health support limited.

Methodology

The objective of the online survey was to gain a better insight into my informants' perceptions and understandings of how events unravelled for them during the night/early morning of 26 September 2017, with questions informed by observations and interviews gathered for the first 12 months of fieldwork. The survey was openly shared on social media groups through which residents (permanent and not) of Samothráki were connecting. The purpose was to have numerous people complete the survey in their own private space and time, without being identified, without feeling any pressure to disclose experiences they might yet not had come in terms with, and with the option to withdraw their participation before submitting the questionnaire – without any record of it remaining on the system. The first questions to be answered were providing mainly demographic information regarding the participants' permanent residence (whether they live on the island or not) and their whereabouts on the night of the deluge (whether they were on Samothráki and, if so, their exact location), with the majority of the remaining questions being open-ended and allowing participants to submit as much input as they wished – or could – regarding their personal experience and subsequent feelings about the event.

Most critically and the main reason why this type of primary data collection was chosen, the survey allowed for a negotiation of distance between the experience as lived and the experience as expressed, as well as between the participants and the researcher herself. Recalling and narrating distressing or even traumatic experiences can prove to be challenging to the wellbeing of each individual, especially when feeling pressured to talk about these experiences. Therefore, I never intentionally requested from any of my research participants to disclose any sort of information or narrative about their experience of the deluge.[3] Instead, in the absence of mental health services on the island and of any preparation or training on my behalf to be confident to deal with emotional distress caused in such contexts, I judged that it was best if the potential participants felt that they were the ones having control over that they were going to disclose and how accurately – or not – their answers were depicting their experiences.

Nonetheless, the other type of data discussed in this article stands quite on the other side of a survey's pre-determined design and distance between participants and the researcher. It consists of public moments in which the 'we' emerged, moments where the distress of one would echo in the 'muddy soul' of more if not all. These

[3] But, then again, how well do we known how our presence, actions and questions are perceived by others? Especially in situations where participants endure emotional pressure, such as post-disaster settings, I think extra care should be taken to proceed with an approach as smooth as possible.

moments included discussions of people's experience of the deluge, discussions about the intensity of each forthcoming rain and what it might bring. But, beyond words, these moments importantly also encompassed people's silence[4]; their void eyes, sweaty hands, alert awareness, all suddenly overwhelmed by some desperate outbreak; angry cries haunting the alleys of Chóra, submerged again by unprescribed medication, pills exchanging hands, or herbal infusions being tested. Such moments were captured in fieldnotes and diary entries[5], thus filtered, even unwittingly, by the researcher's own interests and attention as well as shaped by her own experience of the deluge.

These two different types of data then complement each other and show how people's post-disaster fears, worries, thoughts and reactions were managed in private (in this case, for the purposes of filling out a survey) but also shared in (and with the) public.

Exploring Post-Traumatic Stress

According to the Diagnostic and Statistical Manual of Mental Disorders – edition 5 (DSM-5), "the essential feature of posttraumatic stress disorder (PTSD) is the development of characteristic symptoms following exposure to one or more traumatic events" (American Psychiatric Association, 2013, p. 274). Included in "exposure" can be the following: the direct experience of the event(s), becoming witness to others' direct experience, learning about violent or accidental events as they occurred to family or close friends, or experiencing "repeated or extreme exposure to aversive details of the traumatic event(s)" (ibid), the latter mainly relevant to professional responders to disasters or violent events.

From an anthropological perspective, concerns have been raised as to how clinical conditions such as PTSD can intervene in research and analysis, even more so becoming their point of enquiry. Nicolas Argenti and Katharina Schramm (2010) relate the increased interest in discussing PTSD in anthropology to the role of memory which, as a fundamental component of societies, cannot be left out of anthropological debates, especially when in their case the latter refer to political violence and its transmission through generations. Nadia Seremetakis (1997) discussing how "various socio-cultural modes of remembering and forgetting political violence affect the recognition and management of posttraumatic stress" (pp. 131-132), suggests that political violence and its effects can potentially damage the material and sensorial references in which cultural memory is embedded, thereby causing a disassociation between lived experience and its expression, and as such intercepting the passing of memory from one generation to another. For Seremetakis the study of PTSD in anthropology is thus important, because it "encompasses individual and collective experience, psychic and physical trauma and is intimately entangled with the individual and social organisation of memory" (ibid, p. 131). Expanding to further schemata from psychiatry, Daniel Knight (2019) has suggested to use the Stockholm Syndrome as a tool to analyse people's "seemingly illogical preference"' to permanence within the state of crisis that had been troubling Greek society over the past decade, in fear of a future that might prove to be even worse.

Obviously, determining whether some of the disaster survivors in Chóra, or Samothráki more broadly, were suffering from PTSD goes beyond the aims of the research conducted and the methods available at the time. Instead, the survey responses analysed below, as well as the discussion throughout this article, designate the emotional aftermath of the flood, guided by questions that can be posed when using the diagnostic criteria and analysis for post-traumatic stress disorder in DSM-5.

Emotional Responses to The Deluge

During the survey participants were asked to reflect on how they (recalled to have) felt immediately after the deluge and how they felt a year since its occurrence. These were two separate questions, phrased and sequenced as follows:

- What were your feelings the next morning?

[4] Silence matters for yet another reason. Rapport (2021) writes about the need to not reduce informants' silence to words, that is to a practice that conceals the phenomenological roots of people's choice to withdraw to themselves, even when in public. Instead, echoing Lothe, Rapport (ibid) argues that silence may prove to be a coping mechanism when, for life to resume, the trauma experienced and the feelings associated with it must resort to silence instead of expression.

[5] By fieldnotes I mean what Roberto Barrios (2017) defines as the anthropologist's "attempt to re-create any exchange as faithfully as memory allows" (p. xiv) following on the spot, spontaneous conversations during participant observation, whereas as diary entries I consider more personal reflections concerning the entirety of the research project that are not necessarily and/or directly connected to a specific event or exchange.

- Having been a year since the 25th to the 26th September 2017, what are your feelings now?

Space for long answers was provided after each question. Responses were read and analysed word per word to extract a list of recurring feelings across all responses (see Table 1 below). Then, the responses of each participant in the two questions of interest were juxtaposed to determine whether there were participants that one year after the deluge still had the same feelings to report (see following footnotes).

The strong emotional impact of the flood on the islanders could be expected to vary depending on whether they had a direct experience of it or not, that is whether they were on the island on the night, and whether their location flooded as a result and to what extent. Some people had to be rescued on the spot, some to await to be rescued the next day, while others did not realise of the magnitude of the catastrophe until they walked out of their homes the next day. However, there is a number of other factors that can influence the development and recurrence of symptoms in addition to the initial traumatic event. DSM – 5 categorises these factors in *pretraumatic*, *peritraumatic* and *posttraumatic* depending on whether they are to be found before the traumatic event, during the event, or after the event respectively. Pretraumatic factors include emotional problems from infancy and early childhood, previous traumatic events and mental disorders, socio-economic and demographic influences; peritraumatic are mainly focused on the nature and the severity of the event itself; and posttraumatic encompass individual temperament, exposure to stimuli reminding of the event and problems or losses resulting from the traumatic incident. Because it is the posttraumatic factors, particularly stimuli and losses, and how these were collectively shared (or not), that are mainly of interest in this article, the location of each survey participant on the night of the deluge, though captured in the data, is not included in the analysis below.

Table 1: The most repeated feelings (verbatim unless mentioned otherwise in the table) in response to how people felt the morning after the deluge and one year later. Feelings mentioned just once (i.e. by one participant only) for each question are not included in the table.

THE NEXT MORNING	FEELINGS	A YEAR LATER
10	Sorrow (*Thlípsi*)	3
9	Sadness (*Lýpi*)	3
9	**Fear (*Fóvos*)**	**7**
7	Anguish (*Agonia*)	3
6	Distress (*Stenachória*)	3
4	Anger (*Thymós*)	3
4	**Disappointment (*Apogoítefsi*)**	**11**
3	**Worry (Anisyhía)**	**6**
3	Surprise (*Ékplixi*)	–
3	Shock (*Sok*)	–
3	Awe (*Déos*)	–
2	**Anxiety (*Ágchos*)**	**2**
2	**Exasperation (*Aganáktisi*)**	**2**
2	Rage (*Orgí*)	1
2	Despair (*Apógnosi*)	–
2	Solidarity (*Allileggýi*)	–
–	**Disappointment, worry or fear regarding future repetition** (periphrastically)	**11**
–	Joy (*Chará*)	2
–	Optimism (*Aesiodoxía*)	2
–	Relief (*Anakúfisi*)	2

–	Oblivion (*Láthi*) – 1 answer being periphrastic –	2
–	Mixed feelings (periphrastically)	2
–	Same as last year (periphrastically)	2

Looking at the words chosen by the survey participants[6] themselves to express their emotional state the morning after the deluge in comparison to their feelings a year since the deluge – though they answered both questions when a year had already passed – we can notice that feelings related to the disbelief (surprise, shock, awe) of the consequences and their negative emotional impact (sorrow, sadness, anguish, distress, anger, rage, despair) have withdrawn, most to a remarkable degree. A year later some positive feelings (joy, optimism, relief) appear to have replaced the negative ones, two participants feel undecided (mixed feelings), two state still having the same feelings as a year ago[7] and two more mention oblivion though in different contexts[8].

However, some negative emotions and thoughts have remained stable or have dramatically increased (see blocks in bold in Table 1). A year later, fear is mentioned only by two fewer participants compared to the year before (7 instead of 9), while disappointment almost triples (11 instead of 4) and worry doubles (6 instead of 3). Anxiety and exasperation appear to have remained the same though not necessarily for the same people[9]. Several participants also take the opportunity to phrase their worry, disappointment or fear a year since the deluge that a similar incident may occur again on the island. Some of their responses[10] are:

- 'I feel that the island has not been adequately prepared for another disaster and of course [I feel] **worry** about this.'
- '**Disappointed** by the [Greek] state and **fear** that it [the deluge] might happen again.'
- '**Disappointment** for the infrastructures that still have not been restored and **worry** about the preparedness of the authorities in addressing a similar situation.'
- '**Worry** in case similar phenomena are repeated.'
- '**Worry** because a year later the necessary works have not been completed in order to avoid a similar disaster.'
- 'I do not think that anything has changed and I very much **fear** that we will be called to address similar situations in the future.'

As can be seen by the sampled answers above, prevalent negative feelings monitored a year later (fear, worry and disappointment stressed in bold in the quotes above) were situated within a broader context concerning the severity of the weather, in most cases largely in conjunction with the lack of suitable infrastructure and mechanisms in place to address severe weather phenomena. Some also raised the lack of adequate action on the local and/or national level. The lack of action is also echoed in the words of the participant discussing daily oblivion, in the sense that people did not reconsider their own liability for the impact of the deluge (see footnote 8).

Affective Fears

In a more patient-oriented article, the American Psychological Association (2013) advises that professional mental help should be sought, in case of "persistent feelings of distress or hopelessness and [if] you feel like you

[6] Many participants disclosed more than just one feeling in each of the two questions, so the overall sum of words listed in Table 1 outnumbers the 52 participants.

[7] As recorded in the same participants' replies concerning their feelings the morning following the flood, these were: (1) mixed feelings and (2) sorrow for what happened in Chóra by a resident of the island who was located elsewhere on the island on the night of the deluge.

[8] One concerning the remembering of the participant themselves ("I forgot about it, we had new disasters, the [wild]fires in Máti [at the suburbs of Athens, in July 2018, during which over 100 people perished]"); and the other raised in a broader context ("I hoped that people would be awaken, they would be united to fix the mistakes made so far but unfortunately we returned back to our daily *oblivion* and [that] without changing any of our actions which caused this disaster" [my emphasis]).

[9] The participants who disclosed the feelings of 'exasperation' and 'anxiety' the morning following the flood are not the same with the ones who named these feelings a year since the deluge, with the exception of one who has expressed anxiety both times.

[10] All replies are translated from Greek as accurately as possible, without any editorial amendments on my behalf.

are barely able to get through your daily responsibilities and activities" (Online). Myself, at the end of the 15-month fieldwork period, I had the opportunity to access University-provided support and speak to a counsellor about the trauma the deluge had left behind, eventually establishing ways to handle its impact on me and my writing. However, the lack of mental health services on the island, even post-disaster in terms of recovery, combined at that time with the aforementioned unstable and expensive ferry connection to the mainland, meant that islanders did not have easy and equal access to such professional mental help (Kotsira, 2021b). On the contrary, the community – and here I am mostly referring to Chóra – got accustomed to living with "subsequent exposure to repeated upsetting reminders, [and] subsequent adverse life events" (American Psychiatric Association, 2013, p. 178), in other words stimuli. It is worth noting that 50% of adults diagnosed with PTSD are reported to recover completely three months after the diagnosis, but for others it might take longer than 12 months or even more than 50 years to achieve complete recovery (ibid, p. 277).[11] To some extent, this is directly related to "reminders of the original trauma, ongoing life stressors, or newly experienced traumatic events" (ibid) which can cause "symptom recurrence and intensification" (ibid).

Circled by the sea and flooded by water, the island post-deluge was circling its very residents, trapping them inside their experience of the deluge, or the experience of others, as constant reminders ("repeated upsetting reminders") of that night and what it represented for each one individually, as well as for the community, were impossible to avoid. One quite telling such example is the following.

From Sunday 30 September to Monday 1 October 2018, an area of low pressure passes above Samothráki; yet another *medicane*[12], so-called by meteorologists, this one named Zorbás. On Sunday it rains for most of the day and on Monday thick fog covers Chóra for several hours. As clouds clear and days pass, someone shouts: "[The other day it rained and] for some of us our heart was trembling… [Next time it rains] the water will come [from the mountain into our buildings]! We are [living] among the shit!". The central underground pipe of Chóra's sewerage that the rush of water forced to explode from within as the village was flooding on 26 September 2017, it now lies just a few metres away from us. The restoration works, which started is Spring 2018 and were supposed to be complete within 40 days, are still undergoing. I am not aware whether there has been some leak earlier in the day that fired the general tension admittedly spread in the atmosphere of the public place I find myself in, but as the shouts echo on the mountains surrounding Chóra, an odour captures our nostrils. What follows is a wave of faeces-fed flies, the attacks of which we thought to have been left behind with the hot days of Summer 2018. The flies emerge as a grotesque confirmation that we are indeed living among the shit, and we move indoors.

As my counsellor had helped me realise, fearing (heavy) rainfall because of the increased probability of fatal flooding is a realistic fear; a fear that motivates towards finding the best way to protect oneself. But the realistic fear of rainfall that many of the island's residents were sharing – as I did myself – served another purpose as well. It created what Kathleen Stewart (2009) calls a "public feeling" (p. 2) which, though being escalated or de-escalated differently by each individual depending on their pre-existing personal fears and experiences (i.e. pretraumatic factors according to DSM-5), was spreading among the residents of the island – and more menacingly among the ones of Chóra – to the extent that all could, in variations, identify with it. The atmosphere caused by this fear was affective, in the sense that, to use Stewart's words, it "moved through bodies, dreams, dramas, and social wordings of all kinds" (ibid, p. 3). It shaped experience that was yet to come.

In Spring of 2018, two French cinematographers making a documentary about the island's landscape ask to record my voice reading some of my blog entries as a voice-over for their film. They are mostly interested in that period, when having difficulty to write coherent fieldnotes and deal with the situation, I had resolved to poetry and personal narrative. The woman says: 'Your writing has this poetic, feminine touch that is missing from the film'. I have spent the previous days translating for them and have come to appreciate their dedication. So, we do it. At the end she asks me to see and touch the books that, as I had written in my blog post (Kotsira, 2017), have now infinitely absorbed the mud that rushed into my flooded apartment on 26 September 2017. She bears witness to a remote experience through sensing what has been left of it. My books stand in the middle of the room, blatantly brownish and dirty, as a representation of that night, the experience and its impact. For a few moments a soothing silence surrounds us and I realise that I have now given her greater access to understanding

[11] Recovery in the sense of no longer showing symptoms of PTSD (for a list of symptoms, see American Psychiatric Association, 2013).

[12] *Medi-* from Mediterranean and *-cane* from Hurricanes, they are "warm-core cyclones that occasionally put in danger the islands and coastal regions" (Tous & Romero, 2013, p. 1).

the feelings and emotions that resulted from that night, as she has previously read, heard and recorded them in the form of a blog post. In these silent moments, experience and memory are passed down through these books which, with intangible threads, connect us. This, too, is affect; it is a material, "intimate impact of forces in circulation" (Stewart, 2009, p. 40).

In fact, Emma Hutchison (2016) suggests that the experience of trauma cannot be adequately expressed with words:

> As a psychological and affective, sensory encounter, trauma is experienced in the intensity of its emotional impact and in the absence of words able to sufficiently express it (p. 111).

However, Hutchison (2016) notes, words in the form of speech or writing, as well as visual arts, photography, creative movement and dance, can become representations of trauma, communicating a lived, personal and subjective experience to others who have not lived through it. I would add to these representations the maintenance and exhibition – whether in private or public space – of material remnants or losses associated with the traumatic event; such as my brownish books. Or, such as the unavoidable public exhibition of the destroyed and abandoned Town Hall of the island that to this day – 2023 – stands dark and empty at the centre of Chóra, the island's hospital also to this day standing washed off and bare to its foundations awaiting for restoration at the entrance of Chóra, and of course the sewage pipe that until my departure from the field in the end of 2018 was only partially restored (but has since been completed). Emotions about the night of the deluge and its aftermath were circulating the alleys of Chóra, sustained by the residents' continuous exposure to associated stimuli.

Having been through the same (traumatic) event, waking up to the same destroyed landscape each day, monitoring the weather constantly and sharing similar reactions to stimuli such as the rain with the residents of Chóra, allowed me to identify symptoms possibly related to PTSD, but also to appreciate the silence in the pivotal moments it would spread. Intangible threads were connecting us all, a network of people even in the loneliest moments, even at the farthest locations. I still feel a part of this network, attached and attuned.

Environmental Trauma

It is Spring 2019. I am walking back from my counsellor's office in St Andrews. We have been talking about the rain. Suddenly, it starts raining and soon I find myself jumping over sprouting ponds and irregular streams of water at the streets. I have grown used to noticing such things now.

I am reminded of that spring afternoon of 2018 in Chóra, when walking towards the downward entrance of the village I take notice of a small stream of water. The sky above is clear. Someone must be watering their yard or cleaning the outdoors of their house, I think, as there is a soapy foam travelling along. The water is then divided into shorter streams, filling the gaps between the stones on the cobbled alley and ending in an open sewer a few metres away. The sewer takes the water in this particular time, but its grid – I have come to know by experience – is usually blocked with mud, rubbish or rotten leaves. Walking closer, I notice the stagnant water inside, less than half a metre below my feet. Some amount of water, escaping the curve of the sewer, continues further downwards. Water always finds its way, I say to myself, and I continue mine.

To worry about weather phenomena and the environment in the era of human-induced climate change is not particular to Samothráki and, in fact, does not require the experience of a disaster to set off. Such worry has become known as 'ecoanxiety', defined by the American Psychological Association as "a chronic fear of environmental doom" (Clayton et al., 2021, p. 71). Ecoanxiety is characterised by symptoms ranging from mild stress to depression and post-traumatic stress or even suicide, while devised coping strategies such as substance use can cause greater harm (Dodds, 2021). Admittedly, those familiar with the state of the climate are more impacted by this (ibid), and so are those with first-hand experience of impacts of the climate change and, more broadly, young people (Clayton et al., 2021). When affecting entire communities, ecoanxiety can also cause loss of social identity and negatively impact interpersonal relationships, thus harming a community's mental wellbeing (Clayton et al., 2017). On an individual level, it can result in helplessness and frustration when people feel that they cannot act effectively to mitigate climate change (ibid).

The importance of acting to mitigate the impact of the next disaster coming one's way was also stressed by the survey participants, particularly in response to how they felt a year since the deluge, with the reported lack of

adequate actions heightening negative feelings and concerns. In the public moments of Chóra this anxiety about what the next rain might bring was expressed through an alert awareness of water rushing (not just rain), noise sounding like thunder and flashes resembling lightnings, or simply with all talk pausing in the local cafés when rain was discussed on the TV forecast. People did not want to be found unprepared one more time, so they recalled and discussed over and over again what had happened during the deluge, how and why, and whether things could have been different – all at the expense of not letting go of the traumatic experience. That was trauma relived for a purpose; if actions were missing to prevent the next disaster, lived experience of the collapsing environment would at least foresee it. This echoed PTSD and ecoanxiety, but was neither of them (only). It was what I eventually called 'environmental trauma'.

Environmental trauma is not solely associated with fear. It also aligns with alert awareness, heightened observation and, above all, painstaking efforts to reconcile with the surrounding environment again, now locally altered and globally overheated. It counts the drops of rain, the thunders across the sky, constantly searches for the sound of water and the sight of lightning. It can be experienced personally, but also shapes the life of a community. It would not be an overstatement to say that in those public moments environmental trauma becomes the community itself, even for those members who have not experienced the traumatic event directly. As Hutchison (2016) asserts:

> [P]rocesses of representation – communication – establish a public context where the private and possibly inimitable nature of trauma can be ascribed wider social, emotional meaning and significance (p. 149).

Whereas ecoanxiety can harm a community's mental wellbeing as mentioned above, environmental trauma, shared and fragmented, can bring the community together and back in contact with its surrounding environment. To that end, the use of word *environmental* is not incidental. It could as well be called climate trauma, for example. But *environmental* echoes both the ""natural" and "human-built" dimensions of the palpable world" (Buell, 2001, p. 3) and acts as a reminder that "human transformations of physical nature have made the two realms increasingly indistinguishable" (ibid). Environmental trauma infers that it is not just the disaster survivors who are traumatised; it is also nature itself, as well as the coexistence of the natural and human-built elements as this was perceived before the disaster. As such, efforts to recover from environmental trauma cannot be just oriented toward mental health, but need to also include revisions of one's (or a community's) actions and behavioural patterns in order for 'nature' to recover as well. Therefore, environmental trauma acts as a transforming process through which a new (traumatised) self is brought into a new (deluged) world.

Conclusion: Towards a Trauma- and Disaster-Informed Anthropological Research

There is no doubt that as the climate crisis deepens, more and more anthropologists will be finding their fieldsites destroyed overnight or themselves homeless in the field. Even though they may have travelled to research different topics, the 'environmental doom' may prove more pressing for them and their participants in the course of fieldwork. And yet, we still do little as researchers to be prepared – or prepare others – to respond to an environmental disaster and/or its emotional impact on those we wish to see as interlocutors.

Admittedly, the bibliography does provide key considerations for researchers wishing to embark on post-disaster fieldwork, though these are limited to being present after the disaster has occurred and not while it is happening. But even such references, to the best of my knowledge, do not come from anthropology. For example, Mukherji et al. (2014) suggest that post-disaster fieldwork – defined as "research conducted during the post-impact period of disasters" (p. 806) – provides unique insights into how residents of the place affected deal with their own stresses and agonies as well as the demanding and deprived contexts they find themselves in. They go on to highlight a number of issues that may arise for researchers in post-disaster settings and suggest preparation and in-the-field coping methods, assuming that the researcher will arrive in the fieldsite after the disaster has occurred and will have at least a basic awareness of how things have developed. They do not mention anything about the disaster happening in the midst of fieldwork. The authors also acknowledge that research participants may suffer from painful memories related to the disaster and that their emotions may affect those of the researcher; but nothing is mentioned about a researcher's own painful memories and traumas, and how these can be handled in fieldwork. Elsewhere in the bibliography, much again is written about approaching post-disaster fieldsites when researching the trauma caused within a community (Dominey-Howes, 2015) and how researchers may take care of themselves to minimise their personal emotional distress when documenting the sufferings of others (Eriksen & Ditrich, 2015). Yet, discussion remains focused on vicarious trauma – the emotional impact

on someone when listening and witnessing the feelings of others caused by a traumatic experience that the listener/witness has not endured themselves.

How a researcher will respond to a disaster happening in the field, how they will seek to discuss the event in retrospect with those who experienced it and how they will treat the fragile mental health and wellbeing of their interlocutors, these are all deeply ethical matters. Another ethical but also practical matter is where and how the researcher should draw the line in terms of securing their own safety and wellbeing; in other words, what are those circumstances that can and should signal the early conclusion of the research, particularly when exiting the fieldsite is deemed necessary? For example, following the deluge, I made a conscious decision not to exit the fieldsite. Soon I realised the emotional and mental impact this decision had on me, which nonetheless did not change my mind about staying in the field. Interestingly, this decision was mostly informed and sustained by the support I received from the community of Chóra following the deluge, which gave me confidence to carry on my fieldwork, and even extend it from 12 to 15 months, in spite of the challenges that had emerged.

An additional ethical consideration related to my speedy inclusion in the community of Chóra, largely not as a researcher but as somebody equally traumatised by the deluge, with whom the islanders were fearing together. In practice this meant that I had access to much more information about people's lives and histories than I would have otherwise ever acquired. Carolyn Ellis (2007), discussing relational ethics – that is, how as researchers "we seek to deal with the reality and practice of changing relationships with our research participants over time" (p. 4) – notes that one of the key questions researchers need to ask themselves is "What should I do now?" (ibid). While in the field, I kept asking myself a similar question: *What should I know now?* And, on the majority of occasions, I knew much more than I needed to. One way I mitigated this was, when interviews were held, to ask questions the answers to which I was already familiar with (at least, to an extent). What people felt confident to answer to these questions in the 'formal' setting of the interview and while aware that they were recorded, that was what eventually made it into the analysis of the research. Undoubtedly, there were pieces of information that participants did not repeat while being recorded, or other pieces of information that people requested to be shared only in confidence and with the recorder paused for a few minutes. Such information, though having had an impact on conceiving the wider picture of the fieldsite, has otherwise been silenced.

Trauma-informed anthropological research needs to be ready to address such challenges and treat research participants (present, future and eligible) in a way that "recognizes and values mutual respect, dignity, and connectedness between researcher and researched, and between researchers and the communities in which they live and work" (Ellis, 2007, p. 4). In the case developed throughout this article, and particularly with reference to the unique challenges disasters pose in the field, which raise the importance of a disaster-informed approach to research alongside a trauma-informed one, we can conclude with three key recommendations.

The first recommendation is about identifying and employing data collection methods that are suited to the circumstances and, most importantly, the needs of the population to be researched. In the example of the deluge on Samothráki, the anonymous survey, though straying from classic ethnographic fieldwork, was a way to give back to people the control over the things they would like me (as a researcher) to know about them (as research participants). It was also, methodologically and ethically, a way to distinguish my experience of the deluge from those of the participants; an attempt to strike a balance between the private and public moments I had already witnessed for 12 months and those I would witness until the completion of fieldwork.

Second, the concept of environmental trauma introduced here refrains from pathologising trauma and avoids risking the victimisation of people experiencing trauma. Instead, it proposes a bespoke framework for the collective trauma occurring in the aftermath of an environmental disaster to be analysed as a dynamic process through which disaster survivors resituate themselves in the world and consider paving a new way forward, inclusive of all aspects of their surrounding environment, heading for a future of climate crisis.

Third, as extreme weather events and climate-induced disasters increase, and considering anthropologists conducting fieldwork usually work alone or with limited immediate support available, they need to be provided with a set of core skills so they can support their research participants as well as themselves during a crisis. This need is even greater when working in areas where (mental and/or physical) health services are limited if not completely inaccessible, or where the climate is known to be a risk factor. Such core skills include, but are by no means limited to, de-escalating emotional distress and panic attacks, providing first aid assistance such as cardiopulmonary resuscitation (CPR), emergency preparedness and safeguarding (knowing how to assess risk, when and how to make a referral, and the responding local or national authorities per type of emergency), as well

as self-reflective practices for researchers. For example, during my fieldwork, there were ethnographic observations, such as the mental health struggles extensively discussed above, that were not further explored through interviews, myself very aware at that point that I was not trained to guide participants through questions addressing traumatic or distressing topics while ensuring they would not leave the interview worse off. Nonetheless, prior familiarisation with frameworks such as the NHS Education for Scotland's 'Transforming Psychological Trauma' (2017) or SAMHSA's 'Concept of Trauma and Guidance for a Trauma-Informed Approach' (2014) would have allowed me to determine to what extent these experiences could be further discussed with participants (and which participants) and design a trauma-informed data collection process suited to their circumstances, while also be equipped to identify signs of potential distress and ways to address these.

The aforementioned recommendations are particularly useful for training delivered to anthropologists before conducting their first long-term fieldwork, and as a matter of fact also researchers from other disciplines that employ ethnographic fieldwork as a research method. However, a research degree should not be the first time someone is exposed to these. Research ethics and what they mean in practice, the 'do no harm' research principle as well as an understanding of the potential implications of the climate crisis for research fieldwork should already be introduced as part of a first degree in anthropology.

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