



Steering resilience in coastal and marine cultural heritage

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Abstract

Coastal and marine cultural heritage (CMCH) is at risk due to its location and its often indefinable value. As these risks are likely to intensify in the future, there is an urgent need to build CMCH resilience. We argue that the current CMCH risk management paradigm narrowly focuses on the present and preservation. This tends to exclude debates about the contested nature of resilience and how it may be achieved beyond a strict preservationist approach. There is a need, therefore, to progress a broader and more dynamic framing of CMCH management that recognises the shift away from strict preservationist approaches and incorporates the complexity of heritage's socio-political contexts. Drawing on critical cultural heritage literature, we reconceptualise CMCH management by rethinking the temporality of cultural heritage. We argue that cultural heritage may exist in four socio-temporal manifestations (extant, lost, dormant, and potential) and that CMCH management consists of three broad socio-political steering processes (continuity, discontinuity, and transformation). Our reconceptualisation of CMCH management is a first step in countering the presentness trap in CMCH management. It provides a useful conceptual framing through which to understand processes beyond the preservationist approach and raises questions about the contingent and contested nature of CMCH, ethical questions around loss and transformation, and the democratisation of cultural heritage management.

Keywords Critical heritage studies · Coastal and marine cultural heritage · Resilience · Risk · Adaptation

Introduction

Coastal and marine cultural heritage (CMCH) is broad, encompassing a range of both tangible and intangible features (Ounanian et al. 2021). Tangible CMCH includes aspects such as underwater antiquities, archaeological

sites, traditional material cultures, such as fishing, coastal settlements, boats, traditional fishing gear and instruments, distinctive houses, and lighthouses (Galili and Rosen 2010). Intangible CMCH incorporates the inimitable ethos and identity of specific places, such as those linked with unique fishing villages (Martindale 2014; Urquhart and

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Acott 2013), languages (Robertson 2009), oral traditions, songs, indigenous knowledge, and practices (Kurin 2004). CMCH is at risk due to it being exposed to a variety of socio-environmental pressure, including, amongst others, flooding, population change, urbanisation, and coastal erosion. As these risks are likely to intensify in the future, there is an urgent need to build CMCH resilience. However, the dominant CMCH risk management paradigm narrowly focuses on preservation processes and the present, and tends to exclude debates about the contested nature of heritage, what makes it resilient, and how this may be best achieved.

The preservation conceptualisation of CMCH risk management frames heritage as something that must be conserved and passed on to subsequent generations in its original and unaltered format (Holtorf 2018). This framing sees the faithful preservation of cultural heritage as a substantial factor in successfully managing risks (Jigyasu 2013). Within the preservationist paradigm, any risk of damage, dilution, or destruction of cultural heritage is to be avoided, as preserving heritage in its unchanged form is viewed as the key to its resiliency, both now and in the future (Holtorf 2018). Furthermore, in seeking to pass on heritage from the past to future generations, the preservationist approach narrowly focuses on heritage as it is in the *present* (Harvey 2001), with little consideration of how this heritage came to be and how it will be received or realised in the future (Marschall 2006; Holtorf 2018). We argue that we need to overcome the preservationist and ‘presentness’ focus of cultural heritage risk management by extending our understanding of it as a temporal process, both by understanding how heritage was produced in the past (Harvey 2001) and how it may be used in the future (Holtorf 2018). There is a need, therefore, to develop a broader framing of resilient CMCH management, one that recognises the complex processes occurring within and outside preservationist approaches and that is sensitised to a dynamic understanding of heritage temporality.

We seek to reconceptualise risk management by deconstructing the present and broader temporal aspects of CMCH management. We do this by thinking through the possible socio-temporal manifestations that CMCH may take and connecting them to broad socio-political steering processes. Drawing on the critical cultural heritage literature (Holtorf 2015, 2018; Apaydin 2020; Douglass and Cooper 2020) and case studies from the PERICLES¹ project, we reconceptualise CMCH as consisting of four possible socio-temporal manifestations (extant, dormant, lost, and potential)

and three steering processes (continuity, discontinuity, and transformative). Our typology of manifestations seeks to account for the way various communities may, in a temporal sense, simultaneously view heritage differently. For example, contemporary cultural practices of one community may be viewed anachronistically by another. Our three steering processes seek to categorise the range of practices that steer CMCH towards one or other of these manifestations, which may either increase or decrease associated risks. By understanding the relationship between the various manifestations of CMCH and steering mechanisms, we can reconceptualise risk management more comprehensively and better understand and interrogate processes beyond the preservationist paradigm. Viewing risk management as less focused on strict preservation of the past in the present also opens up questions around inclusion and exclusion, power, and heritage justice in CMCH risk management.

The next section briefly reviews the various risks that CMCH faces and outlines our critique of the preservationist paradigm. In the subsequent section, we develop a typology of socio-temporal manifestations of cultural heritage, followed by a discussion of the three broad steering processes that may direct CHCM towards one or other of these manifestations. The paper concludes by drawing together our discussion on socio-temporal manifestations and steering processes to develop a broad conceptual framework through which to understand the complexity of CMCH risk management and raises questions for CMCH practitioners and researchers.

CMCH risks and preservation

Although heritage everywhere is under threat from socio-environmental pressures, its location exposes CMCH to a wider variety and intensity of risks. Risk can emerge from social alterations, such as population change (Callegari and Vallega 2002), gentrification eroding the heritage of port cities, or intensification of coastal tourism (Andrade and Costa 2020). CMCH is also at risk from environmental processes such as climate change, flooding, drought, increasing storm surges, and coastal erosion (Daire et al. 2012; Fatorić and Seekamp 2017; Köpsel and Walsh 2018; Sesana et al. 2018). The sometimes vague nature of CMCH’s value and potential means that it is also often underappreciated or misrepresented in coastal policies and practices. CMCH can be at risk from politicised biodiversity conservation policies and processes that fail to recognise heritage within human-nature management processes (Peterson et al. 2010; Brennan 2018). Coastal tourism policy that bolsters the reinvention of culture in homogenised ways for mass tourist consumption may, for instance, reduce or even erase local expressions of identity and the capacity of places to project locally rooted

¹ The PERICLES Project was an EU-funded research and innovation project that ran from 2018 to 2021. The project included case studies in Estonia, Malta, Scotland, Northern Ireland, Ireland, Portugal, Wadden Sea, Denmark, Brittany, and the Aegean sea. See www.pericles-heritage.eu for further details.

and authentic cultural narratives (Howard and Pinder 2003). Often CMCH risks are synergistic and/or cumulative. For example, climate-driven risks, including sea-level rise and permafrost thaw, have resulted in the forced migration of tribal communities in the USA, increasing the risk of local cultural heritage loss (Maldonado et al. 2013). As the damage that arises from these risks is often irreversible, the loss of cultural heritage has broader economic, political, cultural, and social effects (World Bank 2017). The erosion of cultural heritage can result in a loss of a sense of community and the social benefits that accrue from having a shared identity (Smith et al. 2016).

The accelerative impact of climate change, which will intensify many threats to CMCH, means that heritage agencies and coastal governments are now urgently seeking to strengthen the resilience of their coastal heritage (Rockman 2015; Dawson et al. 2020). The urgent development of risk management policies and strategies should provide opportunities for rethinking how communities steer CMCH through these complex processes to foster resilience. To date, these policies and strategies predominately focus on preservation, the present and immediate risks, and often fail to consider the past, which may provide valuable lessons in terms of making cultural heritage more resilient (Douglass and Cooper 2020), or the future, which may guide action so as to not jeopardise future or potential heritage (Holtorf 2018). This preservationist stance is exemplified in archaeology, wherein the concept of in situ preservation is a fundamental tenet in contemporary practice and legislation (Aznar 2018). Although the preservationist perspective is most closely associated with tangible heritage, it is also evident in intangible cultural heritage risk management. Intangible heritage can often be preserved through processes (e.g. tourism festivals) that view the episodic articulation of particular intangible cultural elements as sufficient for instilling it with long-term resilience (Hafstein 2018; Ayaydin and Akgönül 2020), artificially preserving heritage in isolation from ongoing social processes. The preservationist paradigm can result in a narrow focus on tangible heritage assets, creating an artificial cleave in the deep interdependence between tangible and intangible heritage. For example, traditional craft items are forms of tangible heritage that may be ‘preserved’ by correctly storing them in museums, but the knowledge and skills that created them are intangible heritage and must be sustained through the enactment of this knowledge (Kurin 2004; Kirshenblatt-Gimblett 2014; Ounanian and Howells 2022).

We argue that adopting a narrow preservationist paradigm is ill-suited to understanding the dynamic processes that impact CMCH resilience. Fostering CMCH resilience should not be framed as a procedure for stringently preserving the past in the present (Apaydin 2020). The management of CMCH

risks is entrenched in complex, socio-environmental processes, that influence which heritages are made resilient and how (Douglass and Cooper 2020). For example, coastal erosion due to climate change may make it impossible to preserve some tangible heritage in situ (Murphy et al. 2009). Adapting sites to be resilient to climate change while preserving heritage may not be economically or ecologically feasible for all cultural heritage sites, and social and political decisions will have to be made about which sites are given priority and how other sites can be made resilient in other ways, for example, through ‘preservation’ by record (Seekamp and Jo 2020).

We argue that processes that are not focused the strict *preservation* are better understood as processes that steer heritage from one socio-temporal manifestation to another. For example, processes that purposefully exclude specific heritage from risk management strategies seek to deliberately change it from something that exists into something that is lost. Similarly, processes such as ‘preservation’ by record alter the very constitution of cultural heritage (e.g. traditional handcraft skills being preserved via documentary rather than through enactment) meaning that what is preserved takes on a new form in the future. CMCH risk management should, therefore, be understood as being more than the presence or absence of ‘preservation’ procedures and should seek to understand all processes that steer CMCH towards one or other of these manifestations. By characterising the various socio-temporal manifestations of cultural heritage, we can develop a better understanding of these steering processes and move beyond the preservationist paradigm.

Socio-temporal manifestations of cultural heritage

To develop our understanding of the possible socio-temporal manifestations of CMCH, we need to think differently about the concept of time in cultural heritage management. Time is a constant, although often under-theorised, organising principle in cultural heritage management, around which issues of values, risk, and resilience tend to coalesce. In the preservationist risk management paradigm, time is viewed as linear and frame management as an activity of the present through which we protect the past heritage for future generations. In other words, ‘the present selects an inheritance from an imagined past for current use and decides what should be passed on to an imagined future’ (Tunbridge and Ashworth 1996, p.6). In this understanding of time in cultural heritage processes, only the present really matters. While acknowledging how culture can impact the perception of time and the value placed on the past or the future (Wang et al. 2011; Guo et al. 2012), we argue that rather than frame the interaction between time and cultural heritage

as linearly consisting of the past, present, and future, we should instead think of time in relation to the state of cultural heritage and the processes that rendered it as such. Time and cultural heritage should not be viewed as having a simple linear relationship, but should, instead, be understood as ongoing socio-temporal processes wherein the past, present, and future of cultural heritage are socially reproduced in response to socio-environmental processes. Thinking in this way allows us to overcome the presentness trap and perceive cultural heritage as something that may exist in several socio-temporal manifestations and that these reflect how CMCH resilience is framed in socio-political processes.

To do develop our argument around the possible range of the socio-temporal manifestations of CMCH, we draw on Holtorf's (2015, 2018) influential papers on heritage loss and futures. There is widespread engagement with Holtorf's (2018) argument in discussions on heritage renewal and there are calls for changes in heritage practices to reflect and incorporate Holtorf's interpretation of heritage as an evolving process (Fredengren 2018; Fredheim 2019; Perry 2019; Rico 2020). While there is typically a desire to try to save everything and maintain the *status quo* of cultural heritage, Holtorf (2018) argues for an increased ability to accept loss and transformation. We build on Holtorf's (2015, 2018) interpretation of lost and future heritage to suggest that we should think of heritage as existing in four possible socio-temporal manifestations: extant, lost, dormant, and potential. We view these as socio-temporal manifestations as they are not absolute and may be interpreted differently, in a temporal sense, by various communities. For example, long-standing fishing practices, such as those practised by Indigenous peoples, may be sustainable answers to contemporary resource management problems (Atlas et al. 2019) but may appear 'pre-modern' when viewed through a colonial governance lens, leading to variability in inter-community perceptions of facts, risks, and solutions (Levin et al. 2021).

We view *extant heritage* as something that is presently used, lived, or recognised by communities as being part of their or another community's cultural heritage. This includes a broad spectrum of heritage that is activated for various reasons, from heritage that communities exploit for tourism, e.g. fish festivals (De Madariaga and del Hoyo 2019), to traditional boat building (Agius et al. 2010), to sites that are recognised as being culturally important either through formal mechanisms, e.g. UNESCO World Heritage designations, or informal mechanisms, e.g. community-based management (Lukman 2020). Extant heritage forms part of community and place identity, and there is a conscious effort to protect it from loss and pass it on to the next generation in its current format, acknowledging that these efforts may sometimes be hidden or practised in secret (Fortenberry 2021). For example, in the PERICLES case studies in Malta and Portugal, traditional boats continue

to be used, having been repurposed for use in the tourism sector. This ensures that the tangible (i.e. the boats) and intangible heritage (i.e. traditional boat building skills) continue to be found and valued in contemporary society. Extant heritage is not, however, limited to historic items and practices that have been re-valourised or repurposed by modern communities. It also includes things and practices that have continued to be used as originally intended and have been preserved through ongoing practice and use rather than being preserved for other means (e.g. tourism). For example, the PERILCES case study in the northeast Aegean illustrated how traditional lagoon *dalyan* fishing practices, including the technology used and the division of labour within the community, have remained unchanged for centuries. Extant heritage is, therefore, something that is significant to a particular community and is continually reproduced through contemporary community practices.

The loss of extant manifestations of heritage is, however, 'an inevitable outcome of a living culture continuing to exist now and in a future that is going to be subjected to changes and transformations compared with the present' (Holtorf 2018, p.643). Heritage loss incorporates the loss of whole heritage assets, their partial loss, or the loss of aspects that deprive them of contextual meaning or value. *Lost heritage* is inevitable in coastal and maritime areas, as saving all elements of CMCH is impossible (Murphy et al. 2009). It is unavoidable that CMCH will be lost to physical processes such as erosion, flooding, and sea-level rise. The PERICLES case study in Malta illustrated how tangible heritage can be lost. For example, the Delimara Fortress in Malta is being slowly lost to coastal erosion. Likewise, socio-economic changes, including the loss of traditional industries, demographic changes, and land-use changes, also contribute to the loss of cultural elements in coastal and maritime areas globally (Howard and Pinder 2003; Pérez-Hernández et al. 2020). In the PERICLES case study in Estonia, the Ruhn dialect of Swedish was identified as something that has been lost through socio-political, demographic change, and the demise of traditional seal hunting.

There is, however, a difference between heritage that is lost through, for example, a managed coastal retreat programme (Hino et al. 2017), and heritage lost through socio-political processes that seek to silence or exclude heritage that does not fit with prevailing narratives (Molina y Vedia 2008). In terms of managed loss, Harrison (2013) refers to a crisis of heritage accumulation that requires increased attention in heritage management if it is to be sustainable. This, according to Harrison (2013), includes ending the conservation of particular forms of heritage once their significance to current and future societies is no longer evident, in what he describes as an active process of cultivating and pruning. On the other hand, heritage that is lost through intentional silencing or exclusion is, by its very nature, harder

to identify and may only be identified as lost when power structures change and space is made for holistic reflections about the past. Lost heritage is, therefore, something that we know existed, but we can no longer activate or transmit to future generations in a meaningful way. For example, the PERICLES case study in Belfast illustrates how the dominant heritage narratives around the Titanic story and Protestant shipyard communities have crowded out other heritage narratives. The long history of prison ship internment during periods of conflict is notably omitted from official port heritage narratives and from tourist trails through the port.

Istvandy (2021) argues that the concept of loss can also be extended to include heritage that is preserved but is inaccessible to the public, for example in archives or under private management. We argue that this type of heritage is not lost, but, rather, is a form of *dormant heritage* that can be revitalised or rediscovered by the public. In a dormant manifestation, heritage is known to exist but is not utilised. Dormancy can be an active decision made about cultural heritage, or it may arise accidentally or through inertia. However, regardless of the process through which it became so, dormant cultural heritage may still be revitalised or reactivated. Heritage may be made dormant as community efforts are required elsewhere or as a tactic to preserve it against contemporary risk in a manner that would allow it to be reactivated at a future time. For example, the Yezidi people reconstructed their lost heritage sites and resurrected associated intangible rituals when they were able to return to their homelands (Isakhan and Shahab 2020).

Cultural heritage that has long been dormant may also be reactivated. For example, ongoing projects seek to apply indigenous architectural designs to address present problems with water management systems (Douglass and Cooper 2020). In this way, the revitalisation and preservation of dormant cultural heritage can help build resiliency in the future (Douglass and Cooper 2020). In the PERICLES case study in Denmark, the dormant cultural heritage related to the Vilsund area as a centuries-old ‘meeting place’ between two distinct parts of the region, the areas of Thy and Mors, is being reactivated in an attempt to develop new social and economic opportunities for the area (Hansen et al. 2022). In seeking to reactivate dormant cultural heritage, we must also acknowledge *why* and *how* it became dormant, the disruptions this caused to specific societies (Nunn, and Kumar 2018), and avoid appropriating heritage in insensitive ways (Young 2005) that have potential to revisit disturbances on these or other groups. In Jordan, for example, the revival of particular heritages in Madaba for tourism has disregarded the rich history of the *ahl elbalad* indigenous people, trivialising their culture and rendering them invisible (Al Rabady 2013).

Focusing only on the preservation of current heritage or the revitalisation of past heritage can prevent innovation and the development of *potential heritage*. The literature

on future heritage examines both the future of currently recognised heritage and the development of new or unrealized heritage (Holtorf 2015, 2018). We, therefore, consider potential heritage to encompass both the transformation of recognised heritage into something new and the development of new heritage from things and practices that are not currently considered heritage. For example, the preservation of traditional boats has resulted in the instigation of new racing festivals which go on to become a form of heritage themselves (Ó’Sabhain and McGrath 2019). The development of new heritage might include the recognition of contemporary technologies and practices, including those not normally considered heritage (e.g. migrant routes in the Mediterranean) as being potential heritage.

All four cultural-temporal manifestations are possibilities for cultural heritage. They should not, however, be considered to be absolute or clearly demarcated categories. The difference between viewing something as lost or dormant heritage, for example, may depend on the perspective of the viewer, and room for this debate should be made in risk management processes. Neither should the manifestations be considered to be temporally sequential. For example, extant heritage does not need to become dormant before it becomes lost. Similarly, potential heritage may become lost heritage if it is not recognised as heritage in a timely manner. By reconceptualising time in cultural heritage, our four socio-temporal manifestations enable us to identify the broad processes that may steer CMCH towards one or other of these manifestations.

Steering processes: continuity, discontinuity, and transformative

To overcome the presentness and preservation issues in CMCH risk management, we need to develop a deeper understanding of the processes that steer CMCH towards one or other of the socio-temporal manifestations outlined above. We argue that these steering processes can broadly be characterised as continuity, discontinuity, and transformative. We view *continuity steering* as processes that are strongly aligned to the preservation paradigm and seek to steer CMCH so that the *status quo* is continuously replicated. When under threat from risk, continuity steering is often the default response, rather than a conscious choice between alternatives. Continuity steering is evident in much of the disaster risk reduction approaches advanced by non-governmental organisations, such as the International Scientific Committee on Risk Preparedness of the International Council on Monuments and Sites. Continuity processes are concerned with protecting heritage from risks and passing on this heritage in an unaltered state. For example, the PERICLES case study in Aveiro focuses on how traditional salt

production continues through the celebration of artisanal methods over mass production methods. Although traditional salt production remains under threat, continuity steering processes that rarefy it as a superior product, or which celebrate its eco-friendly methods seek to ensure it remains an ongoing practice. We acknowledge that strict ‘preservation’ may be a legitimate option when CMCH is at risk. However, by reframing these processes as being concerned with continuity, we wish to open up room for discussing what is being continued, the contingent social and political processes that made it so (Mitchell 2003; Igreja 2013), their historicity (Lipenga 2019), and how these processes may exclude uncomfortable heritage narratives or the heritage of marginalised, silenced, or self-silenced groups (Molina y Vedia 2008).

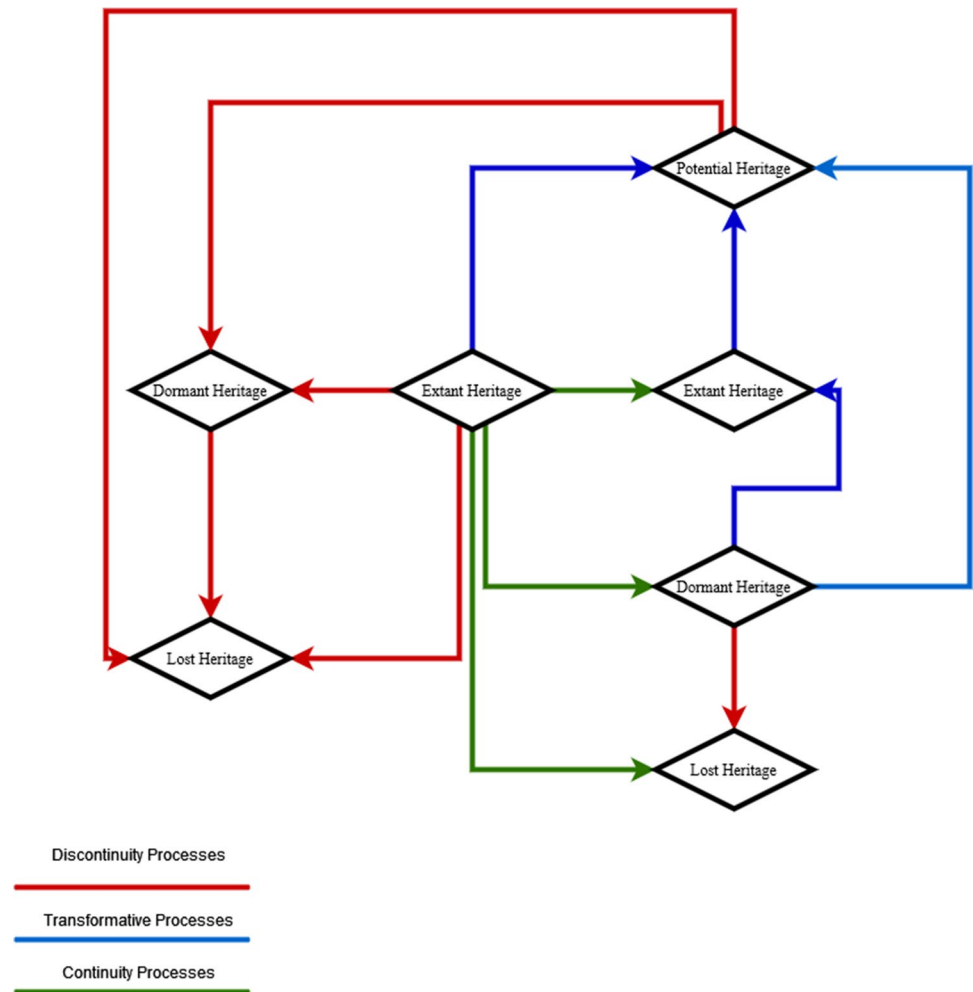
Conversely, *discontinuity steering* processes focus on conditioning CMCH so that it becomes dormant or lost and centres attention on how we make decisions about what should be lost and how. Like continuity processes, discontinuity processes may serve dual purposes. Discontinuity processes may steer CMCH towards a dormant or lost manifestation when it is no longer useful to its community. These forms of discontinuity processes seek to anticipate or instigate heritage loss in a way that it becomes a form of community resilience. In some situations, particularly concerning tangible heritage, the most appropriate policy may be ‘managed ruination’ (Howard and Pinder 2003). For example, the Delimara Fortress is being steered towards ruination as the cost of restoring and defending it against coastal erosion is prohibitively expensive. Such discontinuity processes can be viewed as a form of resilience as it enables the judicious use of limited resources and the prioritisation of efforts. This form of discontinuity process encourages communities to accept the possibility of heritage loss over time, lessening psychosocial dependencies on past certainties while fostering the kind of creative resourcefulness that benefits adaptation (Holtorf 2018). In this sense, Holtorf (2018) argues that achieving resilience is less about loss aversion and more about recognising that heritage transformations, however drastic they may seem at the time, can eventually be a way for communities to absorb disturbances. On the other hand, discontinuity processes may also seek to destroy or erase the heritage of others or heritage that does not fit with hegemonic narratives. These processes may seek to silence or exclude uncomfortable heritage or heritage that challenges orthodox interpretations of the past.

In the literature, discontinuity processes are sometimes framed as potentially generative in forming new heritage (DeSilvey and Harrison 2020). We argue, however, that there is a difference between discontinuity steering and *transformative steering* processes. We view discontinuity processes as ultimately focused on regressive adaptations to

heritage so that it, eventually, becomes unusable by a community. Inversely, we view transformative steering processes as focused on the productive adaptation of heritage so that it continues, in a different format, to be usable by a community. For example, in the PERICLES case studies in Malta and Denmark, heritage narratives were being transformed to revitalise communities. In Malta, this transformation was realised through the use of digital storytelling to map and record local heritage and to produce new tourism heritage products. In Denmark, dormant heritage is being included in discussions about the potential future of the Vilsund and how this heritage can be transformed to reimagine the area as a recreation area. Within transformative steering approaches, cultural heritage, whether tangible or intangible, is viewed as being sustainable only to the degree that it can adapt to stresses and continue to develop rather than remain static (Holtorf 2018). Through transformative steering, the dormant heritage of ancient adaptive approaches to living in and with intertidal areas can be reawakened and used to transform coastal management. For example, traditional Dutch ways of managing cultural wet landscapes have provided more biodiversity than purely natural landscapes. Although many of these traditional practices were dormant, they have been revitalised through transformative processes to adapt to climate change and to provide broader ecosystem services (Drenthen 2009).

Each of these steering processes also entails its own set of risks. For example, the notion of heritage transformation should not be accepted as a panacea for the presentness problem in CMCH or as an easy fix for the structural issues that give rise to this problem. As Apaydin (2020) points out, there are equally pressing ethical issues to ask about transformative processes, particularly around decision-making regarding loss and the ethics involved in transforming heritage that could be potentially destructive to less powerful communities. Likewise, Conolly and Lane (2018) question who should decide what conservation efforts are applied where, when, and by whom, to enable more dynamic heritage management processes that account for loss and transformation. While some cases of transformative CMCH may easily find social acceptance, more radical transformations, such as coastal realignment, will only be effective where legitimacy is more carefully built amongst multiple social groups. The success of these transformative approaches, therefore, depends on effective forms of participatory and deliberative governance where power structures that reinforce the *status quo* may be challenged (Everard et al. 2016). Furthermore, while it is generally accepted that heritage conservation is conducted for the future or future generations (DeSilvey and Harrison 2020; Morgan and Macdonald 2020), it is assumed that future generations will value what is currently valued and this is highly uncertain (Morgan and Macdonald 2020).

Fig. 1 Conceptual framework for assessing cultural-temporal manifestations of CMCH and steering processes



Transformative approaches to resilience will entail other risks, which need to be acknowledged in the development of new management paradigms. For example, intangible cultural heritage is a form of embodied practice and its long-term sustainability requires sustained and repeated enactment of that practice, which will not be achieved through documentary preservation alone (Bonn et al. 2016). It is also essential to recognise that social choice may well favour continuity steering processes, and that in some cases, it is appropriate to protect the *status quo*.

Discussion

Those seeking to move cultural heritage management out of its presentness trap are highly critical of the current ‘threats-based approach’, arguing that heritage practitioners can be blinded from considering new futures and different interpretations of heritage and resilience (Perry 2019). Rather than heritage-making processes narrowly focusing on preserving heritage as it is conceived of in the present,

there needs to be a broader consideration of the temporality of cultural heritage and how management processes deal with loss and transformation (Fredengren 2018). This requirement for a revision of heritage policy and practice is presented as an opportunity to consider more creative ways of caring for cultural heritage (Fredheim 2019) and for communities to develop new heritages for future generations (Apaydin 2020). Realising these opportunities requires the reconceptualisation of risk management to move beyond the preservationist paradigm and overcome the presentness trap of cultural heritage management. We argue that one way of overcoming the presentness trap is to rethink the temporality of cultural heritage.

We do this through the development of four cultural-temporal manifestations of CMCH and connecting them to three broad steering processes (see Fig. 1). Our four cultural-temporal manifestations of CMCH (extinct, lost, extant, and potential) seek to broaden our understanding of the heritage beyond a preserved/not preserved dichotomy. These manifestations enable us to think about heritage beyond the preservationist and presentness trap. Developing these

manifestations seeks to stimulate thinking about how we view the past and the future in heritage management and opens up space for thinking about loss, dormancy, and transformation as resiliency strategies. The socio-political processes that make CMCH more or less resilient are also more nuanced than this preserved/not preserved dichotomy. By reframing these mechanisms as being broadly consisting of *continuity*, *discontinuity*, and *transformative* processes, we can develop a better understanding of what heritages are being made resilient and how heritages are being erased, whether this is deliberate or not, what heritages might be useful in the future in a different format, and how this to best realised. The purpose of our spectrum of steering processes is to provide a framing through which we can better understand the choices actors make about CMCH management and broaden the discussion beyond the preserved/not preserved dichotomy. By understanding the relationship between steering mechanisms and socio-temporal CMCH manifestations, we can better unpack risk management strategies, support communities achieve variegated forms of resilience, challenge the preservation of exclusionary cultural heritage, and resist the erasure of marginalised communities.

Connecting the steering mechanisms with our socio-temporal manifestations of CMCH opens up research to a broader range of questions centred on ethical and democratic considerations of CMCH management. For example, by connecting continuity processes with lost heritage, we can see that these processes are not just concerned with the reproduction of extant heritage, but also reproduce dormant and lost heritages. Similarly, by recognising discontinuity processes and how they seek to actively steer extant heritage towards dormant or lost manifestations, we can better identify exclusionary and insidious forms of power with heritage management.

Conclusions

Moving CMCH risk management processes beyond strict preservation provides opportunities to install processes that are managed from the bottom-up and (Apaydin 2020) to approach ethical debates surrounding heritage transformation inclusively and democratically. Our reconceptualisation of CMCH management, therefore, provides a useful conceptual framing to go beyond the preservationist paradigm and raises a range of questions for CMCH practitioners and researchers. The validity and usefulness of the PERICLES approach will only be illustrated through broader application. For CMCH practitioners, our reconceptualisation of CMCH management asks them to consider the multiple manifestations of CMCH, the processes that steer them towards these, and to broaden their selection of risk

management strategies beyond the preservationist approach. For CMCH researchers, our conceptual framework asks what is the socio-temporal manifestation of CMCH and how has it come about? What are the steering processes that are acting on this CMCH? Which socio-temporal manifestations are they seeking to direct it towards? And, how are the ethical and democratic considerations of this steering being considered? By thinking of CMCH management approaches as falling within these broad steering categories *and* by understanding the various socio-temporal manifestations that CMCH may be steered towards, we can begin to unpack some of these and go beyond merely critiquing the preservationist paradigm.

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Declarations

Conflict of interest The authors declare no competing interests.

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References

- Andrade, M.J., and J.P. Costa. 2020. Touristification of European port-cities: Impacts on local populations and cultural heritage. In *European Port Cities in Transition*, ed. Angela Carpenter and Rodrigo Lozano, 187–204. Cham: Springer.
- Agius, D.A., J.P. Cooper, C. Zazzaro, and J.J. van Rensburg. 2010. The dhow's last redoubt? Vestiges of wooden boatbuilding traditions in Yemen. *Proceedings of the Seminar for Arabian Studies* 40: 71–84.
- Apaydin, V. 2020. Why cultural memory and heritage? In *Critical Perspectives on Cultural Memory and Heritage. Construction, Transformation and Destruction*, ed. V. Apaydin. London: UCL Press.
- Al Rabady, R. 2013. Creative cities through local heritage revival: a perspective from Jordan/Madaba. *International Journal of Heritage Studies* 19 (3): 288–303.
- Atlas, W.I., N.C. Ban, J.W. Moore, A.M. Tuohy, S. Greening, A.J. Reid, N. Morven, E. White, W.G. Housty, J.A. Housty, and L. Greba. 2019. Indigenous systems of management for culturally and ecologically resilient Pacific salmon (*Oncorhynchus* spp.) Fisheries. *BioScience*. <https://doi.org/10.1093/biosci/biaa144>.

- Ayaydin, E., and S. Akgönül. 2020. Finnish Sámi: Is tourism a preservation of indigenous culture? In *Arctic Marine Sustainability*, ed. E. Pongrácz, V. Pavlov, and N. Hänninen, 391–409. Cham: Springer.
- Aznar, M.J. 2018. In situ preservation of underwater cultural heritage as an international legal principle. *Journal of Maritime Archaeology* 13 (1): 67–81.
- Bonn, M., L. Kendall, and J. McDonough. 2016. Preserving intangible heritage: Defining a research agenda. *Proceedings of the Association for Information Science and Technology* 53 (1): 1–5.
- Brennan, R.E. 2018. The conservation “myths” we live by: Reimagining human–nature relationships within the Scottish marine policy context. *Area* 50 (2): 159–168.
- Callegari, F., and A. Vallega. 2002. Coastal cultural heritage: A management tool. *Journal of Cultural Heritage* 3 (3): 227–236.
- Conolly, J., and P.J. Lane. 2018. Vulnerability, risk, resilience: an introduction. *World Archaeology* 50 (4): 547–553.
- Daire, Marie Yvane, Elias Lopez-Romero, Jean Noël Proust, Hervé Regnaud, Soazig Pian, and Benheng Shi. 2012. Coastal changes and cultural heritage (1): Assessment of the vulnerability of the coastal heritage in Western France (Later). *Journal of Island and Coastal Archaeology* 7 (2): 168–182. <https://doi.org/10.1080/15564894.2011.652340>.
- Dawson, T., J. Hambly, A. Kelley, W. Lees, and S. Miller. 2020. Coastal heritage, global climate change, public engagement, and citizen science. *Proceedings of the National Academy of Sciences* 117 (15): 8280–8286.
- De Madariaga, C.J., and J.J.G. del Hoyo. 2019. Enhancing of the cultural fishing heritage and the development of tourism: A case study in Isla Cristina (Spain). *Ocean and Coastal Management* 168: 1–11.
- DeSilvey, C., and R. Harrison. 2020. Anticipating loss: rethinking dangerment in heritage futures. *International Journal of Heritage Studies* 26 (1): 1–7.
- Douglass, K., and J. Cooper. 2020. Archaeology, environmental justice, and climate change on islands of the Caribbean and southwestern Indian Ocean. *Proceedings of the National Academy of Sciences* 117 (15): 8254–8262.
- Drenthen, M. 2009. Ecological restoration and place attachment: emplacing non-places? *Environmental Values* 18 (3): 285–312.
- Everard, M., M.S. Reed, and J.O. Kenter. 2016. The ripple effect: Institutionalising pro-environmental values to shift societal norms and behaviours. *Ecosystem services* 21: 230–240.
- Fatorić, Sandra, and Erin Seekamp. 2017. Are cultural heritage and resources threatened by climate change? A systematic literature review. *Climatic Change* 142 (1–2): 227–254. <https://doi.org/10.1007/s10584-017-1929-9>.
- Fortenberry, B.R. 2021. Heritage justice, conservation, and tourism in the greater Caribbean. *Journal of Sustainable Tourism* 29 (2–3): 253–276.
- Fredengren, C. 2018. Re-wilding the environmental humanities: A deep time comment. *Current Swedish Archaeology* 26 (1): 50–60.
- Fredheim, L. H. 2019. Sustaining public agency in caring for heritage: critical perspectives on participation through co-design (Doctoral dissertation, University of York).
- Galili, Ehud, and B. Rosen. 2010. Preserving the maritime cultural heritage of the Mediterranean, a cradle of cultures, religions and civilizations-the holy land perspective. *Journal of Coastal Conservation*. <https://doi.org/10.1007/s11852-010-0107-2>.
- Guo, T., L.J. Ji, R. Spina, and Z. Zhang. 2012. Culture, temporal focus, and values of the past and the future. *Personality and Social Psychology Bulletin* 38 (8): 1030–1040.
- Hafstein, V.T. 2018. Intangible heritage as a festival; or, folklorization Revisited. *Journal of American Folklore* 131 (520): 127–149.
- Hansen, C.J., E. Azzopardi, I. Béguier, L. Ferguson, W. Flannery, and K. Frangoudes. 2022. Building planning spaces for the integration of coastal and maritime cultural heritage in local and regional spatial development. *Maritime Studies*. <https://doi.org/10.1007/s40152-022-00264-3>.
- Harrison, R. 2013. Forgetting to remember, remembering to forget: late modern heritage practices, sustainability and the ‘crisis’ of accumulation of the past. *International Journal of Heritage Studies* 19 (6): 579–595.
- Harvey, D.C. 2001. Heritage pasts and heritage presents: Temporality, meaning and the scope of heritage studies. *International Journal of Heritage Studies* 7 (4): 319–338.
- Hino, M., C.B. Field, and K.J. Mach. 2017. Managed retreat as a response to natural hazard risk. *Nature Climate Change* 7 (5): 364–370.
- Holtorf, C. 2015. Averting loss aversion in cultural heritage. *International Journal of Heritage Studies* 21 (4): 405–421.
- Holtorf, C. 2018. Embracing change: how cultural resilience is increased through cultural heritage. *World Archaeology* 50 (4): 639–650. <https://doi.org/10.1080/00438243.2018.1510340>.
- Howard, P., and D. Pinder. 2003. Cultural heritage and sustainability in the coastal zone: Experiences in South West England. *Journal of Cultural Heritage* 4: 57–68.
- Igreja, V. 2013. Politics of memory, decentralisation and recentralisation in Mozambique. *Journal of Southern African Studies* 39 (2): 313–335.
- Isakhan, B., and S. Shahab. 2020. The Islamic State’s destruction of Yezidi heritage: Responses, resilience and reconstruction after genocide. *Journal of Social Archaeology* 20 (1): 3–25.
- Istvandy, L. 2021. How does music heritage get lost? Examining cultural heritage loss in community and authorised music archives. *International Journal of Heritage Studies* 27 (4): 331–343.
- Jigyasu, R. 2013. Long-term cultural impacts of disaster decision-making: The Case of Post Earthquake Reconstruction in Marathwada, India. *ArchNet-IJAR: International Journal of Architectural Research* 7 (3): 14.
- Kirshenblatt-Gimblett, B. 2014. Intangible heritage as metacultural production. *Museum International* 66 (1–4): 163–174.
- Köpsel, Vera, and Cormac Walsh. 2018. ‘Coastal landscapes for whom? Adaptation challenges and landscape management in Cornwall.’ *Marine Policy*. <https://doi.org/10.1016/j.marpol.2018.05.029>.
- Kurin, R. 2004. Safeguarding intangible cultural heritage in the 2003 UNESCO Convention: A critical appraisal. *Museum International* 56 (1–2): 66–77.
- Levin, P.S., S.A. Gray, C. Möllmann, and A.C. Stier. 2021. Perception and conflict in conservation: The Rashomon effect. *BioScience* 71 (1): 64–72.
- Lipenga, K.J. 2019. Tales of political monuments in Malawi: Restorying national history. *Eastern African Literary and Cultural Studies* 5 (2): 109–127.
- Lukman, A. 2020. Community-based management of the USAT Liberty, Bali, Indonesia: Pathways to sustainable cultural heritage tourism. *Journal of Cultural Heritage Management and Sustainable Development*.
- Marschall, S. 2006. Commemorating ‘struggle heroes’: Constructing a genealogy for the new South Africa. *International Journal of Heritage Studies* 12 (2): 176–193.
- Maldonado, Julie K., Christine Shearer, Robin Bronen, Kristina Peterson, Heather Lazrus, Rajul E. Pandya, Benedict J. Colombi, J.K. Maldonado, et al. 2013. The impact of climate change on tribal communities in the US: displacement, relocation, and human rights. *Climatic Change* 120: 601–614. <https://doi.org/10.1007/s10584-013-0746-z>.
- Martindale, Tim. 2014. Heritage, skills and livelihood: reconstruction and regeneration in a Cornish fishing port. In *Social Issues in Sustainable Fisheries Management*, edited by Julie Urquhart, Tim G. Acott, David Symes, and Minghua Zhao, 9:279–99. New York: Springer. <https://doi.org/10.1007/978-94-007-7911-2>.

- Mitchell, K. 2003. Monuments, memorials, and the politics of memory. *Urban Geography* 24 (5): 442–459.
- Molina y Vedia, S. 2008. Silenciamiento y sistemas emergentes autoorganizados, Universidad Nacional Autónoma de México. Facultad de Ciencias Políticas y Sociales UNAM, Facultad de Ciencias Políticas y Sociales, 2008. ISBN 9703255280, 9789703255283.
- Morgan, J., and S. Macdonald. 2020. De-growing museum collections for new heritage futures. *International Journal of Heritage Studies* 26 (1): 56–70.
- Murphy, P., D. Thackray, and E. Wilson. 2009. Coastal heritage and climate change in England: Assessing threats and priorities. *Conservation and Management of Archaeological Sites* 11 (1): 9–15.
- Nunn, P., and R. Kumar. 2018. Understanding climate-human interactions in small island developing states (SIDS). *International Journal of Climate Change Strategies and Management* 10 (2): 245–271. <https://doi.org/10.1108/IJCCSM-01-2017-0012>.
- Ounanian, K., and M. Howells. 2022. Clinker, sailor, fisher, why? The necessity of sustained demand for safeguarding clinker craft intangible cultural heritage. *Maritime Studies*. <https://doi.org/10.1007/s40152-022-00260-7>.
- Ounanian, K., J.P. Van Tatenhove, C.J. Hansen, A.E. Delaney, H. Bohnstedt, E. Azzopardi, W. Flannery, H. Toonen, J.O. Kenter, L. Ferguson, and M. Kraan. 2021. Conceptualizing coastal and maritime cultural heritage through communities of meaning and participation. *Ocean & Coastal Management* 212: 105806.
- Ó'Sabhain, P., and B. McGrath. 2019. Traditional sailing boats, embodied knowledge (s) and dwelling in coastal rural communities: The case of the 'Galway Hooker' in South West Conamara, Ireland. *Journal of Rural Studies* 72: 228–239.
- Pérez-Hernández, E., C. Peña-Alonso, and L. Hernández-Calvento. 2020. Assessing lost cultural heritage. A case study of the eastern coast of Las Palmas de Gran Canaria city (Spain). *Land Use Policy* 96: 104697.
- Perry, S. 2019. The enchantment of the archaeological record. *European Journal of Archaeology* 22 (3): 354–371.
- Peterson, R.B., D. Russell, P. West, and J.P. Brosius. 2010. Seeing (and doing) conservation through cultural lenses. *Environmental Management* 45 (1): 5–18.
- Rico, T. 2020. Reclaiming post-disaster narratives of loss in Indonesia. *International Journal of Heritage Studies* 26 (1): 8–18.
- Robertson, M. 2009. Àite Dachaidh: Re-connecting people with place— island landscapes and intangible heritage. *International Journal of Heritage Studies* 15 (2–3): 153–162.
- Rockman, M. 2015. An NPS framework for addressing climate change with cultural resources. In *The George Wright Forum* 32 (1): 37–50.
- Seekamp, E., and E. Jo. 2020. Resilience and transformation of heritage sites to accommodate for loss and learning in a changing climate. *Climatic Change* 162 (1): 41–55.
- Sesana, Elena, Alexandre Gagnon, Chiara Bertolin, and John Hughes. 2018. Adapting cultural heritage to climate change risks: Perspectives of cultural heritage experts in Europe. *Geosciences*. <https://doi.org/10.3390/geosciences8080305>.
- Smith, C., H. Burke, C. de Leiu, and G. Jackson. 2016. The Islamic State's symbolic war: Da'esh's socially mediated terrorism as a threat to cultural heritage. *Journal of Social Archaeology* 16 (2): 164–188.
- Tunbridge, J.E., and G.J. Ashworth. 1996. *Dissonant heritage: The management of the past as a resource in conflict*. New York: Wiley.
- Urquhart, Julie, and Tim Acott. 2013. Constructing 'the staid': Fishers' and non-fishers' identity and place attachment in Hastings, South-East England. *Marine Policy* 37 (1): 45–54. <https://doi.org/10.1016/j.marpol.2012.04.004>.
- Wang, Q., Y. Hou, H. Tang, and A. Wiprovnick. 2011. Travelling backwards and forwards in time: Culture and gender in the episodic specificity of past and future events. *Memory* 19 (1): 103–109.
- World Bank. 2017. *Promoting disaster resilient cultural heritage*. [Online]. Available at: <http://documents.worldbank.org/curated/en/696061511882383371/pdf/121709-WP-P161985-PUBLIC-DisasterResilientCulturalHeritageKnowledgeNoteENWEB.pdf>. Accessed 30 November 2018.
- Young, J.O. 2005. Profound offense and cultural appropriation. *The Journal of Aesthetics and Art Criticism* 63 (2): 135–146.

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