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# Uncertainty as affective state and critical engagement strategy in museum and heritage site settings

## ABSTRACT

Some pasts have long been uncertain—among those, prehistoric lives in areas where limited archaeological evidence has been unearthed. The Scottish Crannog Centre holds a collection of Iron Age artifacts that have been excavated from the bottom of Loch Tay, jigsaw pieces that are used to tell the story of the everyday lives of crannog dwellers two and a half thousand years ago. The visitor experience at the museum is built on direct interaction with the museum team as the visitors are guided through the site, presenting ample opportunities for critical questions to be raised and discussed about how the past can be understood in the present and how it can inform the future. Facilitating such conversations—and using Iron Age artifacts as points of connection and as conversational prompts—involves a careful balance between fact, interpretation, and imagination; what we know for certain, what is likely, and what we do not, and cannot, know. This paper focuses on how Scottish Crannog Centre museum practitioners employ uncertainty as a feeling, a process, and an engagement strategy in generating critical reflections and conversations among visitors. Drawing on data generated through twenty-five interviews with museum staff, apprentices, and volunteers, as well as ethnographic observations, we explore how the team manages uncertainty, how it is positioned and functions in interactions with visitors, and how uncertainty facilitates a sense of connection to the distant past. In so doing, we argue that uncertainty can be more clearly conceptualized as an affective state and a critical strategy when exploring how prehistoric and present-day life are connected in museum contexts.

**Keywords:** Museums, uncertainty, reflection, affect, Scotland, qualitative

## I. INTRODUCTION

Throughout this paper, we build a case for a fine-grained conceptualization of uncertainty as an affective state and a critical strategy for enhancing meaningful heritage and museum work. Our narrative is framed in the context of data generated during fieldwork conducted at the Scottish Crannog Centre (SCC) in Kenmore, Scotland. Data were elicited through a combination of interviews with SCC staff, apprentices, and volunteers and observations of their engagement work. The data on uncertainty in museum visitor engagement work considered in this paper emanate from a broader study, the focus of which is on the understanding, use, and conceptualization of memory work in museum community engagement projects in Scotland. More particularly, the visitor experience at SCC involves face-to-face interactions with the museum team as visitors are guided through the site, during which they are encouraged to reflect on and discuss critical questions about how the past can be understood in the present and how it can inform the future. In employing Iron Age artifacts as focal points for engaged discussion, museum practitioners provide visitors an experience that navigates a careful

balance between fact, interpretation, and imagination; things that we can know for sure, what is likely to have been, and, inevitably, that which we do not know. Thereby, we illustrate how the museum staff and volunteers employ varying degrees of uncertainty with the aim of evoking both critical thinking and affective states in visitors.

In situating this analysis of uncertainty in museum visitor engagement work, we engage with a spectrum of theoretical and empirical literatures that frame uncertainty as emotion and/or affective state, to enable us to present a discussion of the uses and deployment of uncertainty as a feeling, process, and strategy in the particular context of SCC work, while offering reflections on the utility of uncertainty as museum visitor engagement practice more broadly. Emotions, or affective states, are often understood interchangeably in academic discourse, as psychosocial constructs denoting subjective experiences that may evoke positive feelings (such as happiness, joy, empathy) or negative feelings (such as distress, sadness, regret) (Harmon-Jones et al. 2011). Alternatively, it has been suggested that we need to take greater care in disentangling the specificities of emotions and affective states as linked, but certainly distinct, concepts. For example, Hardt and Negri (2005) argue that emotions are largely mental states, whereas affective states implicate aspects of both bodily experience and matters of the mind, and, in terms of the work of the SCC, as well as more general considerations of heritage experiences and studies, a more holistic conceptualization of affect is required. Theoretical constructions of affect encapsulate the experiences people have when they encounter things, spaces, information, and others, at moments of interaction (Fielding 2022) inviting us to consider how, why, and in which circumstances experience moves us. Interaction with material things in heritage visits is more than mere emotion but is also a bodily, physical, and sensory process. In heritage practice, therefore, affect is a concept that captures the essence of the interactions between visitors, staff, artifacts, spaces, content, memories, emotions, and sensory experience (Fielding 2022).

Considering emotional engagement as an affective process is a feature of the “affective” turn in heritage studies and practice (Gregory and Witcomb 2007; Munro 2014). In essence, making sense of how, why, and the circumstances in which heritage experience or engagement moves visitors requires an appreciation of the particular contexts through which uncertainty and affective experiences are moderated, being open to the possibilities that such experiences might intensify or dampen emotions (Anderson et al. 2019). Consequently, we argue that such uncertainties might be effectively harnessed as a deliberate strategy of, and for facilitating engagement in, heritage sites and museums in seeking to evoke emotional responses in visitors, as has been documented in understanding challenging or painful historical events (Logan and

Reeves 2008; Tyson 2008). At a more fundamental level, deploying uncertainty as a strategy encourages curiosity as an affective process (Bar-Anan, Wilson, and Gilbert 2009), in which “mental stimulation” is experienced as a direct consequence of uncertainty (Anderson et al. 2019). Uncertainty, in this context, can be understood as a form of affective labor, which is conducted by one person with the intention of eliciting an affective or emotional experience in another (Munro 2014). Such labor can result in what Hardt (1999) characterizes as feelings of ease, well-being, satisfaction, excitement, passion, and even a sense of connectedness or community. It is important to also acknowledge that experiencing uncertainty can be a disruptive, uncomfortable process. The degree of valence and arousal confronted by visitors in their uncertainty might, for instance, mean realizing their own ignorance, acknowledging what and that one does not know (Anderson et al. 2019), perhaps inducing anxiety (about what one does not know) yet also potentially symbiotically hopeful feelings (about what one can know) (Vazard 2022). So we must acknowledge that uncertainty as a technique of and for heritage site and museum visitor engagement may be characterized by comfortable and uncomfortable experiences, but also by both predictable intended and unpredictable unintended outcomes.

While uncertainty has the potential to simultaneously engage and disrupt museum visitor engagement participants or heritage site visitors, it can also challenge and problematize professional practitioners’ knowledge and institutional certainty and infrastructure. Indeed, employing uncertainty as an engagement strategy can be effective in decentering “expert knowledge” (Akama, Pink, and Sumartojo 2020). Given the unpredictability and messiness of uncertainty, “acknowledging uncertainty entails a critique, it is anti-institutional, radical, risky” (Pink and Akama 2015, 21). While museum curators and heritage site and visitor engagement practitioners are expert storytellers, incorporating uncertainty, or a lack of specificity within their narratives (Ingold 2013), exposes room for the story receivers to reimagine, reposition, and reformulate knowledge (Akama, Pink, and Sumartojo 2020) in novel and potentially challenging ways. As Fielding (2022) recently observed, affective understandings of heritage sites encourage people to connect on a deep level with (re)presentations of the past, sometimes reviewing previously held views of the past in the process. Evidently, affective engagement is particularly important when dealing with material culture and stories beyond living memory (Fielding 2022), since visitors are not able to draw on halcyonic or nostalgic emotional responses, or recollection of family members who “had one of those” (Fielding 2022, 411). Uncertainty can engender a culture in which affective visitor engagements can reenvisage what emotional connections and reactions can be, engaging with visitors on a deeper level than just personal or family reminiscence—and ultimately complicating heritage spaces in profound

ways (Witcomb 2013). In essence, uncertainty challenges “authorised” heritage discourse (Smith 2006) because in challenging visitors to delve deeper into their reimaginings of history, the experience becomes a less passive and more active one. Uncertainty as an affective heritage interaction needs to be framed as a continuous process of reflection and co-constructing visitors’ ideas of the past, for the duration of their experience of the heritage site or museum and well beyond (Fielding 2022). We argue for an appreciation of the particular manifestations of uncertainty in the engagement practices evident within the SCC, but acknowledge the deployment of uncertainty as an engagement technique in other heritage projects in Scotland, such as the Hunterian Museum’s Antonine Wall project (Economou, Young, and Sosnowska 2018).

We frame the work of the SCC practitioners as typical of the engagement strategies employed across museum and heritage site education and, consequently, acknowledge that this work sits within a rich landscape of pedagogical theory and debate. In the interactive, critical, and dialogical interactions that are characteristic of the SCC experience, visitors are encouraged to conceptualize and challenge received understanding of the past and its implications for the present, and, in so doing, these types of engagement are illustrative of Paulo Freire’s (1970) dialogical approach, in which learners are active participants in a process of critical consciousness emergence, rather than passive recipients in a process of “banking” teachers’ expert knowledge. This dialogical approach is characteristic of much pedagogical strategy in museum and heritage site education and often cements the uncertainties and the subjective, individualized experiences and interpretations that visitors will encounter. While Freire’s original conceptualizations of critical pedagogical practices were particular to working-class education, Mayo (2013) has argued for an extension of the dialogical possibilities of these critical approaches to other sites, most notably museums. As Smith (2020) has so eloquently detailed, one of the outcomes of such dialogical interactions with museum practitioners is that the visitor experience, and resultant process of knowledge creation and imagination, is far from homogenous, linear, and predictable. Here, museums are framed as “theatres of memory,” through which participants encounter a range of emotions, in which it is possible to destabilize and reframe established understandings of identity in museum and heritage site contexts (Smith, Wetherell, and Campbell 2018). Museums and heritage can be experienced as emergent, unpredictable processes of engagement, rather than simply sites in which experience is felt. Indeed, in this paper, we argue that the uncertainty that characterizes museums as processes and sites in which educational encounters and practice may occur can

be framed in two ways: uncertainty as an affective state and uncertainty as a critical strategy of engagement.

Deploying uncertainty as an engagement strategy in museum and heritage site contexts offers the potential for creativity and spontaneity in encouraging participant criticality, but it is not a process without challenge or peril. In this case study of the SCC work, we reveal and reflect upon the potential implications of those possibilities and perils for heritage sector and museum visitor engagement practice more broadly.

## II. STUDY LOCATION

The Scottish Crannog Centre is a (largely) open-air archaeological museum, which holds a collection of Iron Age artifacts that have been archaeologically excavated from the bottom of Loch Tay, by which the museum is currently situated. Before a fire in June 2021, the museum's center point—after which it was also named—was a reconstruction of an ancient loch dwelling: a crannog. The circular structure was reconstructed based on well-preserved organic materials found in the water by the museum site (Forrest 2008).

Using the approach of experimental archaeology, the crannog reconstruction was built with the additional aim of rediscovering ancient technology as well as to work as an educational resource for public archaeology (Andrian and Dixon 2007). Still today, the Scottish Crannog Centre is employing experimental archaeology to gain a better understanding of how prehistoric artifacts were made and used by using archaeological data to reconstruct identical representations through similar materials and techniques (Forrest 2008); these techniques are used across the site, ranging from textiles to cooking.

Visitors are guided through the whole site by a tour guide – also referred to as an interpreter – and several other members of staff that visitors encounter at different stations throughout the tour. The museum has an exhibition space in which general information about the Iron Age is presented, along with some of the artifacts that have been excavated from the surrounding environment. The information presented through interpretation panels and by the tour guide gives visitors the opportunity to find out about some key events, as well as artifacts and how they were discovered, before moving to the open-air area of the museum. The outside area is made up of several stations, guiding the visitors through technology, textile, cooking, and trade areas. Each station is staffed by an Iron Age interpreter (a paid staff member, an apprentice, or a volunteer) who provides more information about each particular area and also demonstrates the skills and techniques they are talking about. As such, the focus of the SCC is

on the everyday life of the Iron Age crannog dwellers, and these topics are actively engaged with during the tour, with the interpreters providing information, as well as asking visitors questions, throughout their visit.

The SCC team—at the time the study was conducted—was made up of paid staff members, apprentices (who were paid but were at the museum to gain a Scottish Vocational Qualification), volunteers, and university undergraduate placement students.

### **III. RESEARCH DESIGN**

To reiterate, the findings of this paper are part of a larger project with a focus on the understanding, use, and conceptualization of memory work in museum community engagement activities in Scotland. The project started in 2020 and is currently ongoing. The data presented here are framed under a broader focus on what we refer to as “critical memory work.” Critical memory work emphasizes the role of memory in understanding past experiences—in both a personal and a historical sense—and how those experiences or events shape our view of the world and the perception of our role in it today (Kuhn 2002). The memory work thus involves considering lessons from the past and how those lessons can be practically acted upon; at the Scottish Crannog Centre, the reflections on these lessons take place during conversations with the tour guide and Iron Age interpreters at the different stations across the site. This active and critical engagement, as opposed to passive consumption, of the pasts of others is designed to generate new knowledge and understanding, co-created by visitors and practitioners (Davids 2018). In that sense, criticality lies in the questioning of established narratives, embracing uncertainty, and considering the relationship between the individual and their social, cultural, and historical context(s).

The study uses an instrumental case studies methodology, underpinned by ethnographic principles. The instrumental case study approach does not focus on particular cases in and of themselves but sees them as useful in generating a better understanding of a particular phenomenon in specific cases—aiming to understand something larger than itself (Stake 1995). Additionally, an ethnographic approach places focus on the social meanings of people considering their social context, as well as how meaning is created from the participants’ standpoints (Brewer 2000): investigating shared patterns of value, belief, and action as situated within a particular (social) environment (O’Reilly 2012).

In total, we conducted twenty-five interviews on two separate occasions: nineteen in July 2021 and six follow-up interviews in December 2021. The interviews were collaborative,

not interrogative, and used the semistructured method, always ensuring the participants were gently guided through the conversation (O'Reilly 2012). The approach resulted in rich, in-depth data in which the participants reflected on a range of areas they categorized as involving “memory work.” They were recruited through convenience sampling and on a continuous basis over the course of the week when one of the researchers was based at the site. The participants include paid staff members, apprentices, volunteers, and placement students of varying ages and experience. Some were well-established and experienced members of staff and volunteers, and others were new to the SCC, allowing for a range of perspectives. Notably, the focus of this study is on museum staff and volunteers and their reflections on visitor engagement. Therefore, a limitation of the study is that experiences and perspectives from visitors themselves are not included or discussed. The paper does not make claims about what visitors think or feel but solely focuses on what staff and volunteers think people are feeling or how they attempt to make them feel.

To complement the verbal data, we conducted participant observations over the period of one week in the summer of 2021. The participation can be categorized as falling under “observer as participant” (Atkinson and Hammersley 1994). This type of observation enables the researcher to participate in the setting in a discreet manner. We recorded our observations in field notes. The focus of the field notes was to highlight illustrative examples of practice or to support (or counter) interactions that had been referred to in the verbal data.

The interview data were transcribed verbatim by one of the researchers and subsequently analyzed using Braun and Clarke’s (2006) six steps in conducting thematic analysis. The field notes from the observations were then mapped onto the themes that were created from the analysis of the interview data. Additionally, we added back some nonverbal content into the transcript, such as interruptions (and by whom), references to what the participants were pointing at or referring to, and, at times, tone of voice.

The study was granted ethical approval by the university’s internal ethics committee.

#### **IV. FINDINGS**

Participant observation and the analysis of interview data unveiled several ways in which uncertainty is deployed as a strategy and an affective state—both intentionally and unintentionally—in the SCC team’s interaction with visitors. We present these as three key themes. In “Doing Uncertainty,” we explore how uncertainty is employed as a strategy by museum staff. In “Uncertainty as a Strategy for Critical Reflection,” the focus is on



practitioners' perception of uncertainty as a critical strategy that is felt, experienced, and mobilized by visitors. As a strategy, uncertainty involves encouraging curiosity and criticality in encountering information and ideas at the museum. In "Uncertainty as Affect," uncertainty is positioned by practitioners as an affective state experienced by visitors through their interactions and encounters in the museum space.

## **DOING UNCERTAINTY**

Participants discussed how their experimental archaeology approach at the museum—where archaeological hypotheses are tested, and often replicated, through doing (Outram 2008)—provided a context where the aim was to get visitors involved in a conversation rather than solely presenting information to them. This was perceived to be further enhanced by the participants working outside, in public view:

*Rather than me being hidden away somewhere where no one can see it, people walk past and they can watch me trying to work it [weaving] out, solve problems in public which involves a kind of... I mean people join in and go, "Oh, why don't you try this?" So, it's a conversation with people.*

*—Jason, textiles interpreter*

Overall, the participants agreed that an important part of their role as interpreters and tour guides is to acknowledge uncertainty that surrounds the Iron Age and, crucially, to admit to themselves not knowing something for certain. Rather than regarding being unable to share factually correct information as a shortcoming, acknowledging uncertainty was understood as being positive and valuable in the act of problematizing practitioners as authority figures in their interaction with visitors (Akama, Pink, and Sumartojo 2020). Indeed, expressed uncertainty was foundational in inviting the visitors to join the conversation, rather than solely listening to the information that was given to them:

*The fact that we have some people that many would perceive as being a sort of figure of authority because we are the one presenting... the fact that we're*

*at ease telling them that we don't actually know feels very good, I think it's very important.*

—Kellian, university placement interpreter

None of the participants expressed that they had directly received or felt any negative reactions of disappointment or annoyance from visitors when acknowledging the uncertainties experienced (cf. Mintz 1995). Moreover, navigating uncertainty in these interactions involved constantly clarifying the difference between archaeological evidence (what the participants referred to as “facts”), their interpretations made from that evidence, and statements or queries that involved visitors using their imagination or considering hypothetical situations. The participants often expressed the importance of telling visitors the “truth” of what they do or do not know to ensure that they did not share false information or information not directly backed up by evidence. In fact, several participants discussed the potential dangers or perils of visitors leaving the museum with information that they thought to be objectively true, which may not be the case:

*It's quite hard to stick to the truth exactly because we don't know ourselves... but we can't just make up a whole story because a whole sense of history and the past can just be made up from absolutely nothing, and that's not right.*

—Izzie, apprentice interpreter

To navigate the uncertainty of information, participants employed verbal expressions and strategies to distinguish between fact, interpretation, and imagination throughout the tours. The overall consensus was that the majority of the information the practitioners present to visitors should be based on archaeological evidence. They also highlighted that building those facts into a story was equally important—as long as the distinction between fact and possibilities was made clear to the visitors:

*There's a distinction between “this is what we can say for certain” and our best guess. Of course, I would never tell anyone a complete lie, but if something seems somewhat probable I might as well mention it, but also*

*mention that it is, you know, we don't know that 100 percent. But sometimes you need to add something to make it more interesting. If it's just facts, people tend to get bored very easily.*

*—Toby, apprentice interpreter*

As such, the participants emphasized that dealing with uncertainty involves intentionally incorporating uncertain elements or information in order to tell a more interesting and engaging story to draw the visitors in. How they did this varied depending on the group of visitors and the topic they were discussing, but also who in the SCC team was doing the tour or talk. Our observations illustrate instances of how this distinction between fact, interpretation, and imagination was navigated in practice.

When presenting information that had been derived from archaeological studies of artifacts—either artifacts in their collection or from elsewhere from a similar time period—that information would often be presented as “fact.” For example, the practitioners would phrase it in the following way: “We know this because we can see that from the toolmarks on the side here.” Subsequently, they would point out the evidence. At other times, they showed the evidence first, to then ask the visitors what those—in this example, toolmarks—might be from and what that can tell us about the use of the artifact. This strategy was used to discuss a range of topics and artifacts, including when illustrating the grinding of flour on a grindstone; the grindstone is preserved and so are remnants of flour. The participants explained how this strategy was useful not only in disseminating archaeological research to the visitors, but similarly to practically involve visitors by using artifacts as illustrations of their point or as the starting point for visitors to consider what we can learn about life in the Iron Age from studying the artifacts in the SCC’s collection.

In contrast, to convey information that is likely to be true but there are still some uncertainties surrounding it, the practitioners would employ statements such as “It is likely they would have done it this way, there are some clues that would suggest that, but we are not 100 percent certain.” To illustrate, they would then show the visitors these “clues” or explain how they had come to make that interpretation based on research that had been done elsewhere on other archaeological artifacts from the Iron Age. As in the previous example, they would then open the conversation up to the group and ask them to share what they thought of the interpretation. An example of this was the team showing a small, preserved patch of fabric, which they used as a prompt to discuss textile dyes and the likelihood that the fabric would

have been this color or that color, made from this plant or that plant as it is native to that area of Scotland. Then, they would speak about the process of trying to re-create different colors of textile dye through the experimental archaeology approach and what their process of doing so had taught them so far.

Furthermore, some reflected on how they dealt with uncertain information and particularly on the use of hypothetical questions to encourage visitors to use their imagination and consider the “what ifs” of crannog dwellers’ lives in the Iron Age:

*When I’m doing the tours, I sort of speculate, you know, “this could have been,” which adds an air of mystery... so you’re not saying black and white, but what you’re doing is opening people’s minds and getting them to start thinking ‘ah well, maybe.’ Once you start thinking for yourself about things, I think it makes it more interesting for them, and I think that it adds an element of mystery, which most people love without realizing it.*

*—Jenny, staff interpreter*

This was a common technique among the team to engage visitors—particularly in dealing with information that they do not or cannot know for certain based on available archaeological evidence. To convey this uncertainty in visitor interactions, the interpreters often made statements such as “We cannot know exactly what it would have sounded like, but it may have sounded something like this,” or “I like to imagine they would have done it for this reason, what do you think?”

The first example came up in a conversation about a musical instrument similar to a lute, which has been reconstructed based on the archaeological findings and instruments that have been found elsewhere from this time. During the tour, one member of the SCC team played a song on this reconstructed lute and emphasized that they cannot know what songs the Iron Age people would have played, or if that is what the instrument actually would have sounded like; but that does not stop us from considering it as a possibility. Moreover, despite these uncertainties, hearing the instrument played can prompt questions and make the overall visit a more sensory and rich experience. Thus, whether the musical element is authentic or not is regarded as irrelevant, as long as it is not presented in a way that comes across as (pre)historically true to the visitor. Equally, as in the second example, the SCC often used the

word “imagine” when characterizing the Iron Age people’s intentions or experiences. This was done by asking visitors to step into the shoes of the Iron Age people, to highlight that despite the vast difference in time and lifestyle, they were people with thoughts and emotions who reflected on the world around them and their relationships with others. So, although there is uncertainty surrounding what they would have thought and felt, there is a certainty that they did think and feel; this certainty can be used to explore a range of possibilities and “what ifs.”

Acknowledging, using, and “doing” uncertainty in this museum and heritage context, then, involves the balance between fact, interpretation, and imagination in visitor interactions. At the SCC, this practice and the strategies deployed to navigate uncertainty are framed by an overarching challenging of the tour guide—or interpreter—as the sole expert in interpreting archaeological artifacts and in inquiring what they can tell us about the past. In so doing, the aim is to invite the visitors to join in the conversation and play a role in imagining and formulating knowledge (Akama, Pink, and Sumartojo 2020).

## **UNCERTAINTY AS A STRATEGY FOR CRITICAL REFLECTION**

Using uncertainty as an engagement strategy was not perceived solely as related to the handling of certainties. Indeed, engaging with often uncertain and limited information about life in the Iron Age was perceived to be practically useful in encouraging visitors to critically reflect on and question information and ideas about the Iron Age and to make connections between prehistory and the present day.

Participants explained how the museum’s focus on the everyday life of Iron Age crannog dwellers functioned as a way to create connections to prehistory that, despite the distance in time, were familiar to visitors. They expressed that the everyday focus demystified the Iron Age as a time completely incomprehensible, different, and detached from the present day, and that it anchored the information and conversations about that time in a tangible, relatable, and shared human social reality:

*I think if you’re talking about objects that people actually can identify with, you encourage people to engage with their own memories. I think if you go with something that we’ve got that people have no connection with, that’s not gonna do it. The familiar encourages memory, it gets people to think—it’s everyday, it’s relatable.*

—Graham, storyteller

The importance of connection between the Iron Age and today to engage visitors was highlighted by all participants. In relation to creating a connection to the past, some reflected on the use of nostalgia, and whether or not nostalgia was used by the SCC to “draw people in” or frame Scotland’s prehistory in a certain light (Fladmark 2000). Whereas some acknowledged that nostalgia was sometimes used as a strategy to engage people—particularly in the sense of the shared community and togetherness of the past—it was also acknowledged that no attempt was made to create a coherent story about the Iron Age crannog dwellers to preserve the idea of a certain past and how that past has informed Scottish national identity today:

*Nostalgia to me sort of implies inaction. What we’re doing here is active... I think we’re using the past to make the future more attainable and to make it more understandable. I think the... if you can use objects in museums and the memory that object has to kind of look at how everything is made by someone and that everybody’s fingerprints are on something, and then you go out and buy something yourself... you start to think about who made it and who’s touched it before you.*

—Rachel, community archaeologist

A sense of connection to the past was not solely regarded to be necessary to be able to relate to the past to better understand it; connection through affect was also seen as something that can be used to encourage visitors to reflect on the relationship between the past and the present, as well as how “lessons learned” can shape our behavior in the future (Farrell-Banks 2023). Such reflective conversations were often initiated throughout the tours, particularly when the interpreters asked visitors to consider how archaeological evidence, and the interpretation of it, can help better understand and reflect on social issues—such as sense of community, gender roles, and our relationship to the environment—today:

*They were talking about the division of labor, which gave me a lot to think about. There was a man who was talking about the culture of the First Nation people in Canada and he was comparing it to the people of the Iron Age*

*because they had no set gender roles, which is very interesting and, of course, that's what we're trying to work towards nowadays. Everyone thinks it's this modern idea, but it's not actually; it used to be more of a strength thing than a gender role thing ... you can see them [the visitors] reconsider it as you're chatting about it.*

*—Elena, university placement interpreter*

This conversation had been overheard by Elena during her own tour guide training, and she expressed that it had made her reflect on how information about the Iron Age could be related to present-day personal experiences as opposed to being seen as distant and separate. When observing the tours, we encountered several instances of the SCC team encouraging critical and independent thinking in the visitors by introducing parallels (as well as differences) between the Iron Age and the present day, asking visitors to share their own reflections and listen to the ideas of others. Doing so was made possible because of the uncertain nature of much of the information the visitors were presented with; in many cases, there was no clear right or wrong informing the parameters of such conversations. Furthermore, participants also highlighted their role in emphasizing to visitors the value of not accepting information at face value, but engaging with what they are presented with at a deeper level; questioning what they were being told and identifying connections between different forms of information for themselves. In that sense, the practitioners saw their role as one that incites curiosity in the visitors to find out more. Observing the practitioners doing this during the tours illustrated the openness to such an approach among the vast majority of visitors. However, some were more hesitant in engaging and appeared surprised that they were asked to actively participate, as opposed to simply listening. The practitioners dealt with such visitors in different ways, adapting their practice to make the visitors comfortable while still encouraging them to contribute by providing several prompts and examples throughout the tours (Best 2012).

The instances that invited critical reflection ranged from considering the “lessons learned” from the past to broader critical engagement with history and narratives told by the museum—more specifically, questioning that which is not commonly thought of to be up for debate. Rich explained that they hoped to encourage more in-depth engagement and thinking among visitors, particularly by considering “what ifs” on a broader scale, related to the telling of history and the consideration of importance and value:

*If you walk into the museum and you get greeted with a timeline that goes “Stone Age, Bronze Age, Iron Age” and once you get to talking about the textile, for instance, there’s this idea of actually... if a different group of people had stepped into archaeology, we would be talking about “the Twill Age and the Tabby Age” or about dye colors, you know, the “Green Age, the Purple Age”—all those colors that were discovered. We use the Stone Age, Bronze Age, and Iron Age because [for] the people that studied archaeology source tools and the tool and the building is the most important thing... but actually, if you go right back in time, it’s not just the iron, it’s the way they wove, it’s the wood they used, the buildings they lived in... it’s making the small—we consider things small, but it’s just as significant [...] two thousand years ago those might have been the most important things.*

*—Rich, community archaeologist*

Critical reflection, thereby, is both enacted on a current-issues level as well as a broader historical level, which highlights the possibilities that uncertainty can offer, as well as its unpredictability and potential messiness (Pink and Akama 2015). Not only does the SCC team acknowledge uncertainty as an engagement strategy to deal with the lack of certainties in the knowledge of the Iron Age crannog dwellers, they also use it as a starting point for conversations about “big” topics but framed in a “small” everyday context.

## **UNCERTAINTY AS AFFECT**

Participants drew attention to the role of affect in managing the overall sense of uncertainty about the lives of the Iron Age crannog people. The practitioners highlighted how they incorporate and emphasize elements that they can almost know for certain to create a balance, a feel, and a foundation from which they can tell their story. Overall, the participants noted that the aim was to make visitors feel connected to the Iron Age, as opposed to feeling detached from it, which, they claim, visitors expected to feel when first encountering the museum. In particular, the SCC team revealed how they attempt to create a sense of connection to that very distant past through the certainties of shared sensory experiences:



*I like to get people to put their finger into the fingerprint of the pottery. So, in some ways you are kind of... on your finger you get the fingerprint memory of this other person, and you can feel someone else's hand on your hand and it creates this weird connection.*

—Becky, pottery interpreter

The use of touch to create a sense of connection to the past is well-established in museum practice (Dudley 2010; Edwards, Gosden, and Phillips 2006), with touch providing a certainty that the past “did happen, and touching this thing proves it to me” (Kavanagh 2000, 21). In this sense, the SCC aimed to establish connection between the visitors and the Iron Age through the use of affect: the encountering of things, people, space, and information that generate a certain response (Fielding 2022; Munro 2014). Hardt and Negri’s (2005) positioning of affect as involving both bodily experience and matters of the mind is noteworthy here, in the practitioners encouraging visitors to feel the past they are unpacking and discussing.

The participants highlighted several ways in which they used the concrete, tangible, and sensory to create a rich and relatable visitor experience; touching surviving “human traces” on artifacts, ensuring a fire was always lit, and considering (likely) feelings, emotions, and human relationships that would have been as real and everyday in the Iron Age as they are now. Overall, they argued that this “truth” of the shared human experience can make not being able to understand the full picture easier to accept and manage and that, as Geralt – a university placement interpreter – put it, “from this truth comes true emotion.”

Relatedly, participants highlighted the role of the physical environment in inciting a sense, and feeling, of certainty and making it easier for people to see themselves as part of history:

*We're literally still on the rock where they lived. These people, they would have lived one hundred meters away, and they would have used the land that we're walking on, and it's so close to where they were actually living. We're keeping things in the place where it was, and even though the trees will look different, [they] were in the same place, and if you look out at the loch, it's the same loch they would have seen.*

—Georgia, apprentice interpreter

The SCC team often referred to the surrounding environment during the tours, highlighting the similarity and differences in their experiences of it to that of the Iron Age crannog dwellers. Many also spoke of how the environment and the more direct and deliberate sensory engagement were used in combination, with the aim of heightening emotions and how visitors had expressed feeling “moved” as a result (Fielding 2022). This is illustrative of how the participants perceived that affective visitor engagement can be generated on a deeper level than solely through personal reminiscence and experiences in creating connection to the past: it is taken beyond the directly personal and into broader dimensions of the shared human experience.

Furthermore, the participants repeatedly emphasized how—despite the distance in time—visitors did regularly connect what they encountered during their visit to their own lives in discussions during the tours. So although much of the knowledge and experiences visitors come across during their visit is vastly different than their own—due to the uncertainty of what life in the Iron Age was like for the crannog dwellers—there are small elements that can be drawn on to generate a sense of not only affective connection but also potentially personal and familial connection too (Fielding 2022; Witcomb 2013):

*We had a visitor who still uses the kind of grinding grain that we use in the cooking area to make her own bread and so could compare, like, timing... and a few people remember their parents using this sort of thing.*

*—Eben, university placement interpreter*

Some participants highlighted the felt responsibilities of dealing with participants’ personal experiences and memories, if they were shared with them during the tours. However, they noted that they had not encountered visitors sharing upsetting memories (cf. Munro 2014) but rather mostly happy ones, so that that aspect of their work involved listening and acknowledging the visitors more than managing (negative) emotional and unpredictable situations.

Overall, uncertainty as affective state—that is, the evoking of emotional responses in visitors through body and mind—can create a sense of certainty that frames the broader engagement with the uncertainty of the lives of the Iron Age crannog dwellers and our relationship with them, generating an experience of continuity between the past and the present.

## V. CONCLUSION

Uncertainty is ubiquitous in museum and heritage site visitor engagement interactions, which are often characterized by intense debate surrounding what we do not or cannot know. The narratives of practitioners in this study reveal that uncertainty is manifested in a variety of ways in their work, ranging from mundane, incidental discussion to more powerful affective experiences for both visitors and practitioners. Either way, there is acknowledgment, even encouragement, of the benefit of leaning into uncertainty as a productive strategy for encouraging critical engagement for and by visitors.

So, while uncertainty might decenter the practitioners' status as possessors of expert knowledge, participants also reflect on the challenges and opportunities afforded by employing uncertainty in their engagements with visitors, not least in terms of the ways in which uncertainty encourages a more equitable dialogue and exchange of ideas as an effective way of redressing the power imbalance between practitioner and visitor (Akama, Pink, and Sumartojo 2020), whether intentionally pursued or not. Particularly in the context of archaeological heritage work, the complexity of navigating visitors through known facts and interpretive uncertainties requires considerable care and skill, particularly with the language that is used to engage visitors with some artifacts. Indeed, visitors are encouraged to revel in feeling liberated to embrace the excitement of the process of (re)imagining history by accepting uncertainties, by accepting that we cannot and do not know everything about past times. Furthermore, visitors frequently were encouraged to raise critical questions about all aspects of the practitioners' narratives, even those aspects that might otherwise be received or presented as "fact." Practitioners observed that such criticality intensified, and was enhanced by, visitors' sensory engagement with artifacts, particularly through touch or the physical environment. Such affective experiences were perceived to simultaneously enable visitors to feel more concrete connections with historical places, times, and events while providing a focal point through which to express, work through, and feel comfortable about ongoing uncertainties and unknown, even unknowable, histories. Without doubt, SCC practitioners' engagement work created a physical and emotional landscape that was conducive to creative and spontaneous visitor criticality.

Doing uncertainty in engaging with museum and heritage site visitors is a powerful strategy for destabilizing "authorised" heritage knowledge (Smith 2006). Anchoring conversations in uncertainties, and the resultant affective experience of visitors, facilitates their

positioning as active co-constructors of historical knowledge (Fielding 2022). Doing uncertainty well, acknowledging its usefulness in engendering critical dialogue, and harnessing the positive dimensions of uncertainty as an affective state can only enrich museum and heritage site engagement practice. Equally, we reiterate and extend Mayo's (2013) work, in arguing for using uncertainty as a pedagogical strategy with the aim to critically reflect, question, and create connection that can be adapted to a variety of learning environments outside of museums and heritage sites.

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### **COMPETING INTERESTS**

The authors have no competing interests to declare.

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