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PLACEMAKING THEORY AND GEOSPATIAL ANALYSES: EXAMINING SITE

TRANSFORMATION FROM SETTLEMENT TO CEMETERY IN BRONZE AGE

TRANSYLVANIA

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      What we know about people and the spaces they once occupied is informed by what is left behind. Artifacts may be examined through different lenses – literal and figurative – and interpreted with the aid of previous research and scientific technology. The conclusions that may be drawn, therefore, are subject to scrutiny, and are supported or refuted based on available data. When examining rituals associated with death and burial, for example, the history and politics that undergird specific ideological institutions must also be considered (North 1990). These historical and political foundations are reflected in the mortuary rituals that occurred in a defined geographical space, and include social events, practices, and procedures that ultimately affected the material record available to archaeologists (Quinn, Ciugudean and Beck 2020). The material record provides contemporary investigators with insight into the choices made by the former living members of the region. When compared with other materials identified from a distinct time period, archaeologists may be more confident about whether the material record obtained in a specific region aligns with or deviates from established social conventions. In this paper, I consider the role of geospatial techniques as a complement to examination and analysis of artifacts, and apply a theoretical framework of placemaking theory. As a result, I offer a discussion about the Râmeț-Gugu – a Late Copper Coțofeni habitation site – that was transformed into an Early Bronze Age cemetery, and articulate questions that continue to evolve about the sociopolitical factors that contributed to the transformation of the space.

      Placemaking is a theory often associated with urban development, and it describes the mutually reciprocal relationship between people and spaces. Specifically, decisions are informed by what people need from geographical spaces, and placemaking theory provides an explanation of how people can build identity and social relationships in the process of transforming spaces (Harmanşah 2014). With regard to mortuary rituals and cultural practices, while social and

political institutions may limit people's choices about where they can place bodies, each death provides the living people with potential opportunities to revisit and create different norms through their physical interactions with the land. Monitoring the physical and spatial dimensions of mortuary practices helps archaeologists establish and examine hypotheses about such choices made by the living when burying the dead. Furthermore, such research extends the reach of the continued importance of the dead within the lives of the living – even thousands of years after the burial rituals occurred.

Archaeologists whose work focuses on such practices can note changes in mortuary behavior. This paper specifically examines an aspect of Early Bronze Age (EBA) cemeteries and Coțofeni sites within a broader pattern of EBA communities transforming Late Copper Age settlements into mortuary spaces (Quinn and Beck, 2016). Within the Transylvanian region where numerous identified sites are located, evidence suggests that the people who resided in local Bronze Age communities shifted some of their cultural practices in response to the migration of new people and their cultural practices. Yet these same settlers preserved strong associations with their own Copper Age ancestry through the reuse and repurposing of space (Ciugudean et al. 2008).

In this paper, I examine the contributions that geospatial techniques bring to explorations of how the placement of the dead is connected to the physical transformation of landscapes. This exploration considers the types of activities that likely occurred at Râmeț, specifically, as well as the temporal pattern/transition of these activities. This research also considers the distribution of burial sites in the Transylvania region in relation to each other, and what that may suggest about mortuary practices of specific cultural groups through deliberate uses of land and space. On the topic of transformation, I also examine what a pattern of reusing burial spaces suggests about the

Bronze Age cultures using the land and the presence of any potential relationships between them. This research is informed by GIS and other spatial analyses that contribute to the creation of maps to illustrate aspects of the history of burial activity at Râmeț during the Early Bronze Age (2700–2000 BCE) and Middle Bronze Age (2000–1500 BCE). Analyzing different cultural groups and practices through the perspective of placemaking provides a lens through which a greater understanding of the physical transformation of space from settlement to cemetery may emerge. The implications developed by tracking these activities will be connected to the development of a museum exhibit in Romania, with discussion of how to convey the archaeological evidence to a public audience.

PLACEMAKING: HISTORY AND THEORY

First developed as a theoretical approach to the impact of housing and public spaces on people within the context of urban design (Pierce, Martin and Murphy 2011), placemaking has been used widely to discuss the interactions of people with each other and the spaces they occupy. In archaeological contexts, placemaking is used to situate past communities within the locations they occupied to frame the activities in which they participated. While in some contexts it is possible to incorporate ethnographic information to supplement analysis rooted in placemaking theory (McLerran 2010), archaeologists often utilize other evidence that complements their lines of questioning, thereby shaping a unique definition of placemaking in the process.

While 'placemaking' is used today in a variety of contexts and disciplines, its theoretical origins can be traced to writings from the 1960s and 1970s writings on city planning, mostly focused on redevelopment in New York City, such as Jane Jacob's *The Death and Life of Great American Cities* (Jacob 2011). Jacob and her contemporaries explained development strategies that prioritized the adaptation of local resources and capabilities to underscore urban

development in efforts to emphasize the qualities of place that make it unique. Through such activism, Jacob and others inspired a number of movements that have protected neighborhoods from speculative demolition and displacement. In response to her writing, critical commentators have increasingly argued that not only does everyone have the right to live in a great place, but more importantly everyone has the right to contribute to the process of making places great. Henri Lefebvre's *Le Droit à la ville* (translated in English as *The Right to the City*) (1968) positions civic engagement in urban development as a critical ingredient in an inclusive and active society - one that would therefore result in a truly equitable and democratic state. In his writing, Lefebvre described such participation as the means for citizens to manage the evolution of urban spaces, remaining aware of hierarchical sociopolitical structures, yet acknowledging the potential for individual contributions in the shaping of collective developments. The collaborative nature of placemaking gives rise to new relationships between stakeholders, groups, and organizations. Such an inclusive approach allows for many different types of knowledge and collective experience to influence the development of a place or space. Lynda Schneekloth and Robert Shipley (1995), architects who have written extensively about placemaking beginning in the 1990s, explain placemaking processes as public practice, in which creating spaces for empowering citizenship therefore also provides citizens with opportunities to confront unequal power structures and decision-making dynamics in a specific cultural setting. According to this explanation, the placemaking approach includes a diverse and renewable set of activities, such as: construction and deconstruction; urban farming and green spaces; decluttering and reorganizing spaces; establishing connections and building relationships with neighbors; occupying buildings; and analyzing cities. Current debates and dialogues about placemaking

typically focus on managing swiftly developing technologies and the changes in trends related to people's interactions with urban development.

In archaeology, greater emphasis is placed upon the power of place to evoke memory, through the exploration of historical narratives that link place to the formation and maintenance of individual and collective identities. There is a wide range of contexts within which placemaking is applied, most of which consider the reciprocal relationship archaeologists can have with the groups with whom they work. One popular application of placemaking theory is with discussion on monumental architecture. For example, in North American archaeology researchers argue that monuments can bring groups together to form new collaborations and new, shared constructions of meaning, and archaeologists can contribute to this process of counter-meaning production by uncovering sites of "meaning-making" that have been obscured through colonialism. As they have the capability of contributing to the public's process of construction memory, archaeological sites and built monuments can introduce viewers to alternative memories and alternative histories. One such example of alternative history is evident in the work of McLerran (2010) notes that because archaeological sites risk placing people in the past, thus denying them a present and a future, indigenous people are often ill-served by public monuments and historic preservation.

Defining Placemaking and Applications to Bronze Age Archaeology (Case Study)

For the purposes of my research situated in mortuary contexts, I determined that it was important to define placemaking specifically in a way that appropriately acknowledges my research questions and considers multiple facets of place that connect to understanding human agency and practices as part of the archaeological analysis process. In order to develop my own definition, I examined how placemaking was applied in other Bronze Age research contexts, especially when

the research incorporated geospatial data. Most commonly, placemaking theory was applied to discussions of monumental structures and connections to social organization. In one example, monumental buildings on Cyprus constructed in the Late Cypriot period (ca. 1650-1100 BC) were examined for the role they played in the formation and transformation of social structures and maintenance of elite power (Fisher 2010). Importantly, Fisher (2010) defines placemaking as "the creation of meaningful contexts for social interaction through a combination of architectural design and ritual performance" (184). Fisher's (2009; 2010) research examines how buildings were designed to facilitate social interactions through analysis of room arrangement and how specific spaces control access and encourage or discourage particular types of interaction. Fisher also examines the placement of symbolic architectural elements that were (and still may be) laden with sociopolitical meaning, such as ashlar masonry as a means of reaffirming social boundaries. While I found this definition and application helpful in connecting my own work with the placemaking approach, there were a few components of the definition that I would change in order to better discuss the excavation site Râmeț, especially with distinguishing mortuary contexts from monumental contexts. I found that the emphasis in placemaking theory on ritual and architecture neglects part of the secular, repetitive activity that informs placemaking as a theoretical concept. With a greater focus on shared cultural practice, a distinction between actions and rituals better specifies human agency. Human agency describes the capacity to make decisions and the actual execution of decided action. Furthermore, this definition needs to include a deeper layer, acknowledging repeated actions that shape things. Whether describing the construction of a place for social interaction through the lens of architectural design, or more simply linking the space to human agency, both maintenance and transformation need to be acknowledged.

Every action that is performed in particular spaces actively contributes to the co-creation of the space and identity linked to the people through their actions. Wise (2004) notes that "[t]he assemblages of everyday life are territorialized by networks of control and regimes of truth, but they also contain within them networks of care" (Wise 2004, 438). The capacity for change is always there but not necessarily invoked often and comes from the people themselves. This bridges the stasis and change that may occur at a location. Fisher's (2010) article acknowledges activities such as feasting, in which people participated, but he does not present any discussion of the people themselves and the specific identity being constructed beyond the elite status that the occupants may have possessed as the 'owners' of the space. Recent research attempts to expand our perception of space and design as a visually dominant domain by elevating the potential impact of "multisensory interactions and synergies" (Spence 2020, 1) on what is built in a particular space and how it promotes "social, cognitive, and emotional development (1-2). I think a possible additional or different perspective to take would be to blur the lines between construction and use, using action to define ritual, which allows the construction of the structure to be part of the placemaking, too. It is also important to remember that placemaking is a collective process. Within the social context at Râmeț in what is now Transylvania, people were actively involved in scraping the ditches, and then perhaps the same people engaged in building the burial mounds, and then perhaps the same people were buried within the mounds. This sequence of activities can be explained through the lens of placemaking theory to better understand the archaeological evidence left behind.

My definition and application of placemaking focuses primarily on one space (Râmeț), and includes: (1) the process of tracking the physical transformation and maintenance of place; (2) creation of social identities that change through the use of the space; (3) monitoring the

specific people who were participating in those activities; and (4) considering how to invite the public into this work through museum exhibitions and other community engagement. By utilizing this definition of placemaking, I consider the temporal activity at Râmeț (i.e., the 'how and when' of the activities at the site) and who was (and currently is) interacting at the site, along with considerations of memory and potential connections for how the space was transformed through individual and collective memory. Memory, for the purposes of this paper, includes the functional transition of the site from settlement to grave while linking to my role as an archaeologist and presenting geospatial data to a wider audience. The section that follows presents relevant information about the region and its inhabitants during the Early Bronze Age (EBA).

COȚOFENI CULTURE AND BURIALS: TRANSITION INTO BRONZE AGE TRANSYLVANIA

Researchers of Bronze Age Transylvania have noted minimal diversity in burial practices during the majority of the Early Bronze Age (Quinn, Ciugudean, and Beck 2020). Primary and secondary inhumations in rounded and mounded tombs are the most common forms of mortuary practices (Ciugudean 2011). Tombs can be found in isolation, or clustered together to form tomb cemeteries of various sizes. Tomb cemeteries are often identified in highly visible locations, such as along ridges in the Apuseni Mountains and overlooking the Mureș River Valley. The largest identified tomb cemetery, Cheile Aiudului, has sixteen tombs. Each tomb typically contains between two and ten individuals (Ciugudean 2011). During the Early Bronze Age, tombs in the Apuseni Mountain highlands, where Râmeț is located, were covered with both limestone and earth mantles. There is some variation with this construction compared to tomb cemeteries located in the lowlands of the Mureș River Valley, partially influenced by the presence of

limestone outcrops in the mountains. In many cases, Early Bronze Age communities in the mountains had to collect and transport limestone several kilometers to the site of tomb construction (Ciugudean 2011). The presence of limestone is a primary indicator of an Early Bronze Age tomb associated with funerary practices.

In contrast to the relatively constrained range of funerary practices that characterized the Early Bronze Age (2000-1500 BCE), Middle Bronze Age (1500-1200 BCE) communities buried their dead in a wider range of mortuary contexts using a broad range of body treatments. Archaeologists have named the local Transylvanian cultural group during the Middle Bronze Age the Wietenberg Culture (Quinn and Beck 2016). Middle Bronze Age communities also placed cremated remains and vessels into the mantles of several Early Bronze Age tombs, complicating the archaeological record of these spaces when excavating. While bodies have been found in a wider range of mortuary contexts, there is no evidence that Middle Bronze Age communities constructed mortuary monuments. Due to the lack of 'monumentality', Middle Bronze Age burial locations would have been less visible than Early Bronze Age tombs, especially at a distance such as in the mountains. The changes in mortuary practices that began around 2000 BCE both reflected and structured shifts in the roles of the dead in the lives of the living. This pronounced mortuary transformation makes southwest Transylvania an ideal case study with which to examine the potential roles of mortuary rituals in this diverse environment.

For the purposes of my discussion and analysis I am looking at the archaeological evidence of Râmeț within the distribution of transformed mortuary sites in the broader Transylvania region. To build upon a brief description of the site earlier, Râmeț-Gugu is a Late Copper Coțofeni habitation site that was transformed into an Early Bronze Age cemetery. The site is located in the central area of the Trascău Mountains, part of the Apuseni Mountains, at an

altitude of 788 meters. The hilltop has a large view over the Mureş valley to the south, and towards the Râmeţ Gorge to the west. The Coţofeni occupation was enclosed by two ditches that were measured to be approximately 70 meters in diameter. Each ditch was approximately 2 meters wide and full of residential debris, the ceramics being largely identified to the Coţofeni III phase. Ongoing excavations at Râmeţ have shown that an Early Bronze Age grave was built in the center of the enclosed area, covered with a stone and earthen cairn. The perimeter of the grave was encircled by a stone ring as well. The main tumulus is approximately 14 meters in diameter and contains several burials with the skeletons deposited in contracted positions or commingled depositions of multiple individuals. There are several cremation graves from the Middle Bronze Age (Wietenberg culture), which follows a pattern of the re-use of EBA tumuli during the MBA also seen at other Bronze Age sites in Transylvania. There was likely little time between the latest occupation and burial activity at the site (Quinn and Beck 2016). With excavations ongoing, it is not yet possible to determine how much time elapsed between the Coţofeni occupation and mound construction at Râmeţ. A similar situation seems to be recorded south of the Carpathians in the case of the Ariceştii-Rahtivani – Movila pe Răzoare, where Coţofeni III ceramics was found both as grave-goods, deposited in a pit, and spread over the ancient ground. The repetition of this type of interaction suggests a widespread practice of such mortuary cultural activities. At Râmeţ, excavations in recent years have provided new information about the relations between nonlocal groups new to the region and local Late Copper Age societies like the Coţofeni. In terms of location, Râmeţ is representative of the cultural landscape and is starting to reveal the realignment of local practices in response to a changing social environment during the Bronze Age.

Communities from the Eurasian steppe, called "the Yamnaya culture" by archaeologists (Quinn and Beck 2016), migrated into the Carpathian Basin during the Late Copper Age and Early Bronze Age. The Yamnaya are most strongly associated with large kurgans (burial mounds/tumuli) that remain a monumental presence on the landscape even today. Research into the western expansion of Yamnaya has mainly focused on the group of mounds distributed in the Lower Danube area: Bulgaria, southern Romania, eastern Serbia and the Tisza region. However, unlike the regions of the Lower Danube or Tisza rivers, the uplands of Transylvania continued to be dominated by local Early Bronze Age (EBA) groups throughout the beginning of the 3rd millennium BC.

The arrival of the Yamnaya corresponded with several changes in behavior seen across the Carpathian Basin and Transylvania. A closer look is required to see if these changes reflect the replacement of people, the diffusion of ideas, or the realignment of local practices in response to a changing social environment. The first shift in behavior is seen in mortuary practices. An examination of the regional record reveals that the movement and redeposition of human remains is a repeated trend for Early Bronze Age burial mounds of southwestern Transylvania. Despite their abundance in Transylvania, manipulation of bones and secondary deposits have not been previously identified as an important part of Yamnaya cultural practices south of the Carpathians (Frinculeasa, Bianca and Heyd 2015). Overall, the Early Bronze Age mortuary record across the Transylvanian region shares a series of common mortuary 'motifs', including the skeletonization and disarticulation of some assemblages of human remains prior to deposition in mortuary mounds, the commingling of multiple individuals in single graves, and the coexistence of multiple forms of funerary treatment within the larger mortuary sphere of the mounded upland tomb cemetery (Quinn and Beck 2016). As bone manipulation and secondary depositions are

observed across a wide variety of cultures and time periods, it is not so simple as to create a singular explanation for the role of the Yamnaya in these mortuary practices. Instead, contextualizing discussions of secondary depositions in Transylvania in their direct historical context helps guide consideration of the remains through the lens of a placemaking perspective. The second major change in mortuary behavior coincident with the arrival of Yamnaya is the link between EBA cemeteries and Coțofeni sites, seen at Râmeț, which is part of a broader pattern of EBA communities transforming Late Copper Age settlements into mortuary spaces. Clay hearths, together with Coțofeni ceramics, have been found in the central area of several mound in Transylvania, at Ampoiţa-Peret, Livezile-Baia, and Cetea-Picuiata, all of which have activity dated to the Early Bronze Age, too (Ciugudean 2011). A similar situation has been identified in the Bronze Age cemetery at Cheile Aiudului, where several mounds covered Coțofeni III occupation deposits, with evidence including fire marks and broken pottery. In some cases, such as Ampoiţa-Peret (Ciugudean 2011), habitation debris was transported more than 1 kilometer from the settlement to be incorporated into the mounds. This demonstrates that EBA communities deliberately incorporated settlement debris into mounds and that it was not only the result of being close at hand when constructing tombs. This is the same kind of consideration that goes into hypothesizing the transportation of limestone for the mounds too. These lines of ceramic and burial evidence combine to suggest that the movement of Yamnaya communities into the Carpathian Basin and lowlands of southwest Transylvania did not result in a complete replacement of the people and traditions of the Late Copper Age landscape, but rather complicated the cultural dynamic of local groups in the Early Bronze Age through its immersion. There isn't direct evidence at Râmeț, as is the case at other Early Bronze Age cemetery sites, to confirm that the Yamnaya people were present. For considering burial activity at Râmeț, instead

it is likely that local communities responded and shifted some practices, while maintaining a strong connection to their ancestry through the reuse and repurposing of space.

FIELDWORK AND EXCAVATIONS AT RÂMEȚ (REFLECTION)

From July 12th to August 5th, 2023, I participated as a member of an archaeological fieldwork team in Romania. Our work occurred primarily at Râmeț. This opportunity provided numerous experiences that contributed to the growth of my knowledge and skills, including: (1) deepening my personal understanding of the region to better inform my research work; (2) extending development of my analytical and hands-on skills in an archaeological setting; and (3) gaining a stronger understanding of the site's significance to the region, both geographically and culturally for the purposes of considering potential museum development (discussed in the Museum and Tourism Development section). This section of the paper provides reflection on my four weeks spent in Romania in order to offer comparatively informal, yet reflective, analysis of my experiences.

The excavations at Râmeț began in 2018 and are directed by Horia Ciugudean, along with Colin Quinn and Jess Beck, in the context of a cooperation agreement between Hamilton College, University College Dublin, and Muzeul Naţional al Unirii, Alba Iulia. Prior to beginning my excavation work, I visited the Muzeul Naţional al Unirii, also known as the National Union Museum. I returned to this museum numerous times during my time in Alba, exploring the exhibit spaces as well as the administrative and conservation areas. The museum maintains a series of exhibits that display Bronze Age materials, though there are materials that chronologically date all the way through the 20th century, including many related to the Roman Empire, which is a connection crucial to many citizens and historians. For specific connections to my own research work, I was curious to see how geographic data was displayed, if at all. The

strongest example I observed was a map that presented different locations of significant

economic activity within a specific period during the Roman occupation of the region (see Figure
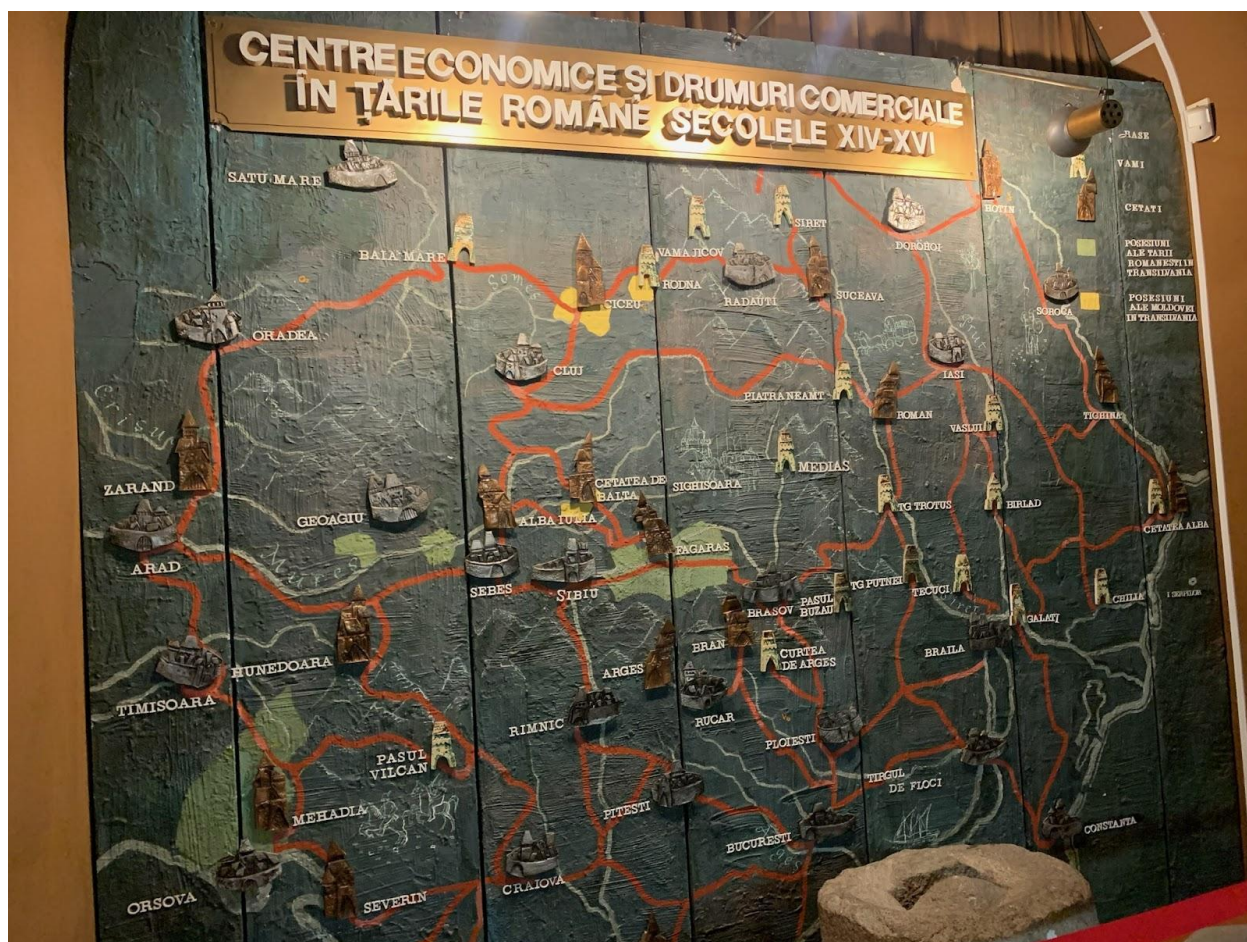
1).

Figure 1. A map displaying site information pertaining to economic activity during the Roman occupation of the region at the National Union Museum in Alba Iulia. (Photo by Matthew Fiore)

The symbolic representation used in the map is visually appealing, however with my limited

understanding of the region's geography and the language, I could only understand a portion of

the map's significance. This style of visual representation is the product of the last reorganization

experienced by the museum in 1975, and there were no more complex or advanced technological

examples featured in the exhibits beyond the detail that is depicted in Figure 1. The experience

of visiting the National Union Museum helped me gain a sense of how archaeological materials

are displayed in public settings in Romania, and to consider the capacities and limitations related to the exhibition of any data that I would obtain and share publicly during my time abroad.

Excavating at Râmeț offered a wonderful experience, unlike anything that I expected after only reading about the site during my research preparations prior to traveling to Romania. The geography of the site presents isolated, yet breathtaking views of the surrounding mountains and valleys (see Figure 2). In terms of accessing the site, we drove for 30 to 45 minutes daily, each way, along a windy, single-lane road from the foot of the mountain, past the neighboring towns of Teius and Geomal. Beyond the limited traffic that may pass along this single road, the site's location at the peak of the hills tends to attract camping groups, which we encountered multiple times during our few weeks of fieldwork. The hills are also used by shepherds (accompanied by sheep and herding dogs) and there is a quarry in operation that we drove past on our daily journey to the excavation site. While the interactions with the landscape have changed since the Bronze Age, it is easy to infer from the terrain and lack of developed roadways that the site would not have been regularly accessible and certainly could have some cultural significance, based on challenges the terrain may have posed to navigation. The burials at the site suggest limited activity that may have followed a deliberate temporal pattern, only furthering considerations of the site's physical accessibility especially in the transition of its use from settlement to repeated use as a burial space.

Figure 2. Excavation work in progress at Râmeț with views of the terrain and surrounding mountains. (Photo by Matthew Fiore)

At the time of this writing, many of the specific details about the material finds and analytical numerical data created by a series of archaeological devices are in various stages of processing as the field season concludes. I can, however, comment on the field notes I made daily throughout my fieldwork. While larger parts of the site had previously been excavated, we began digging at the northern tomb section of the site. This partition of the tomb includes a region of the top of the burial mound, the slope down to the foot of the mound, and the edge of the mound distinguishable by a series of large rocks deliberately defining the borders of the burial space. The transformation of the site from settlement to burial space was observable during excavation, particularly through the identification of Coțofeni ceramic fragments in the soil layers between the human remains and the bedrock layers covering them. These fragments were identifiable by their temper quality, or the material within the grains of the fragment's center. The color of this section of the fragment, as well as the general texture and weight of the

artifacts (see Figure 3), made them easier to identify with time, as I had only seen pictures of the

artifacts prior to my excavation work.

Figure 3. Two Coțofeni ceramic fragments uncovered during excavation at Râmeț. (Photo by Angela Escalante)

In addition to findings obtained underground, information obtained from the skies provided

invaluable information about the site, as well as those who inhabited and transformed the space

with their presence and rituals.

DRONE SURVEY

A substantial part of the research described in this paper included studying to obtain a Part 107

license to become a pilot of a small unmanned drone prior to traveling to Romania. "The drone is

defined as much as a technology that can see as a technology that flies, yet sight is just one part

of how they sense…since they enable us to extend our perception into new places, they multiply

our possible experiences, and they reshape our geographic imaginations." (Garrett and Anderson

2017, 6) The use of drones resonates well with the placemaking framework that informed my

research focus, specifically because drones provide a perspective unattainable to humans without

the use of technology, thereby stretching perceptions of space (and how humans interacted with

the land) in ways not limited by gravity. Time spent learning about the regulations and logistics

involved in operating a drone informed considerations of the potential applications and

limitations of utilizing drone technology for the development of a museum exhibit at or about

Râmeț.

Research into drone usage also raised critical questions about positionality, such as what

or who is observed, and by whom. For example, Garrett and Anderson (2017) note:

> ...drones, like cartography and Geographic Information Systems (GIS) sit within a
> tradition of critical scholarship on the 'view from above'[and]... some military drone
> operators come to 'see their top-down view as one of inherent superiority over the
> subjugated, less important, and racialised people – or even dehumanised non-people – far
> beneath the gaze', which connects the view from the drone to a long history of
> subjugation through spatial visualisation. And yet, geographic technologies have also
> been appropriated to socially productive ends, such as counter-mapping practices and
> open-source or participatory GIS, where control of those technologies is democratised, to
> a greater or lesser degree. (2)

Such critical examination of human practices aligns with previous research conducted by

archaeologists in this region (Quinn, Ciugudean, and Beck 2020), in which researchers also raise

questions about the "political purposes" of how human bodies are used during different time

periods, and over time.

Aerial Survey Data (Case Study)

During the Râmeț excavation experience, I observed the operation of an unmanned drone as it

recorded video footage of the site and the surrounding landscape (see Figure 4 and Figure 5).

Figure 4. Aerial perspective obtained from drone footage of Râmeț during 2023 field season. (Photo extracted from Panu, 2023)

Figure 5. Aerial perspective obtained from drone footage of Râmeț and surrounding landscape during 2023 field season. (Photo extracted from Panu, 2023)

The drone operation accompanied photogrammetry work to document the dimensions and condition of our excavation trench at the conclusion of our digging during the 2023 field season. The use of drone technology was particularly useful in terms of providing aerial survey data that

will contribute to the academic conversations and research across disciplines (e.g., archaeology, anthropology, history), and also has implications for museum exhibition and cultural preservation.

In regions that are difficult to access by foot, or because attention to past cultural groups has been neglected or remains unknown, the aerial survey data greatly complements archaeologists' practices. Rocha and Branco (2009) articulate the importance of surveillance in difficult landscapes, noting that "traditional information about the territory is continually being lost as the older generation of rural people, with strong ties to the land and cultural traditions, and an excellent knowledge of the local area, is passing away, implying the loss of a very important source of oral information" (par. 6). The implications of using drone technology has many useful applications for archaeological analysis and mapmaking, for these reasons, and the same applications that could be transferable to a museum setting. These topics will be discussed in the sections that follow.

MAPMAKING - EXAMINING BURIAL AND SETTLEMENT DATA

Part of my work before and during my time excavating in Romania was to process geographic data on Bronze Age sites, like Râmeț, which are identified as cemeteries with evidence of previous settlement materials. While much of this analysis remains ongoing, the data applies to consideration of my research questions about the transformation of the land at Râmeț. It is not possible to discern any specific trends for the transformation of the space regionally before materials are processed at each site, however the practice of redistributing Coțofeni ceramics either as grave goods or fill for mounds is highlighted through cataloging and previous research (Quinn and Beck 2016). Previous research has been conducted to consider potential connections between the locations of cemetery sites and access to resources within the regional landscape.

Researchers concluded that the placement of the dead suggests there was a significant change in the organization of metal procurement from the Early to the Middle Bronze Age. Cemeteries would have acted as a venue for Early Bronze Age communities to contest access to metal. However, data on cemetery placement during the Middle Bronze Age suggests that later communities were no longer primarily using their dead to contest access to metal. The lack of evidence for competition over access to metal sources during the Middle Bronze Age suggests that there were strong institutions during this period that facilitated extraction and distribution of Transylvania's metals (Quinn and Beck 2016). Tracking the locations of burials requires simultaneous consideration of the political interests behind their creation (see Table 1 and Table 2). The physical transformation of the spaces and the emergence of groups new to the region suggest that these spaces are markers of the dynamic landscape in Transylvania through the Early Bronze Age and into the Middle Bronze Age. Further data on site locations is required before more comprehensive trends or conclusions can be drawn, however I adapted a few preliminary maps from ones created by the aforementioned researchers (see Figure 6 and Figure 7) using the data accessible at the conclusion of my fieldwork. The archaeological data contained in the following tables and maps provide a foundation for further exploration (see Figure 6 and Figure 7).

Table 1

Site Name	Description/Notes (e.g., settlement debris origin)
Hăpria	Central area includes the debris of a demolished Coțofeni house. The majority of the soil that made up the mound consisted of redeposited cultural deposits from Coțofeni habitation at the site.
Aricești-Rahtivani – Movila pe Răzoare	Coțofeni III ceramics were found both as grave-goods, deposited in a pit, and spread over the ancient ground.
Râmeț	Evidence of intact Coțofeni deposits under a small area beneath the Râmeț tomb. The mound fill contained redeposited Coțofeni ceramics and animal bones.
Ampoița-Peret	Evidence of clay hearths with Coțofeni ceramics. Habitation debris was transported more than 1 km from the settlement to be incorporated into the mounds.
Livezile-Baia	Evidence of clay hearths with Coțofeni ceramics.
Cetea-Picuiata	Evidence of clay hearths with Coțofeni ceramics.
Poiana Ampoiului	Evidence of Coțofeni settlement primarily includes animal bones.

Early Bronze Age Cemetery Sites with evidence of settlement transformation into graves.
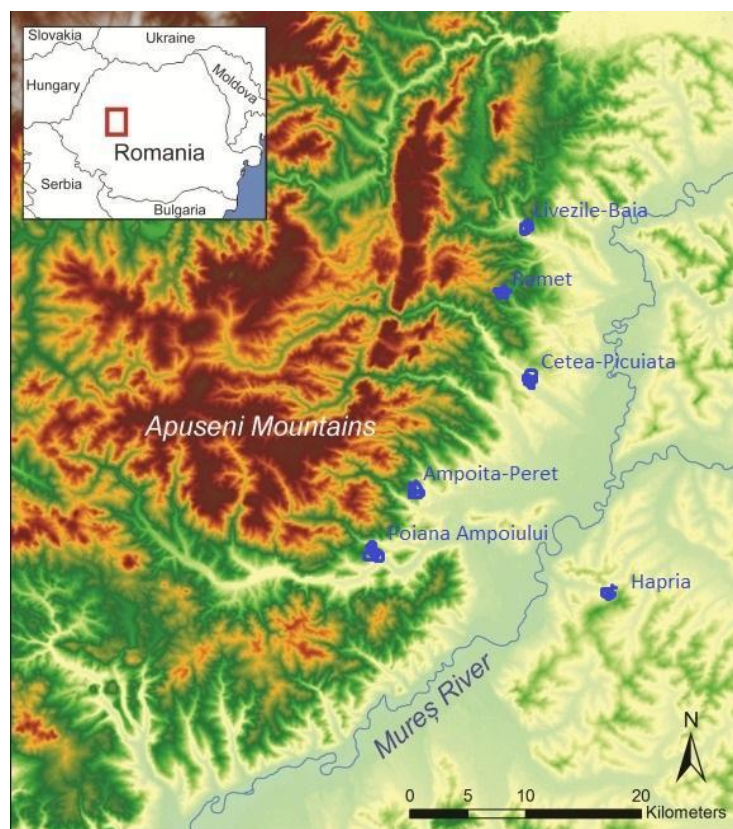
Figure 6. A map indicating the topography of Southwest Transylvania and the locations of Early Bronze Age cemetery sites with evidence of settlement transformation into graves listed in Table 1. Note: Ariceştii-Rahtivani – Movila pe Răzoare is located further south and is not present on this map. (Map adapted from Quinn, Ciugudean, and Beck [2016] by Matthew Fiore)

Table 2

Site Name	Description/Notes (e.g., settlement debris origin)
Râmeț	Several cremation graves from the Middle Bronze Age (Wietenberg culture) in Early Bronze Age tumuli
Cheile Aiudului	Fire marks, broken pottery; vessel with burnt grains
Ariceştii-Rahtivani – Movila pe Răzoare	Several cremation graves from the Middle Bronze Age (Wietenberg culture) in Early Bronze Age tumuli
Ampoiţa-Doştior	Several cremation graves from the Middle Bronze Age (Wietenberg culture) in Early Bronze Age tumuli
Cetea	Several cremation graves from the Middle Bronze Age (Wietenberg culture) in Early Bronze Age tumuli

Middle Bronze Age Cemetery Sites with evidence of settlement transformation into graves and reuse of Early Bronze Age spaces.
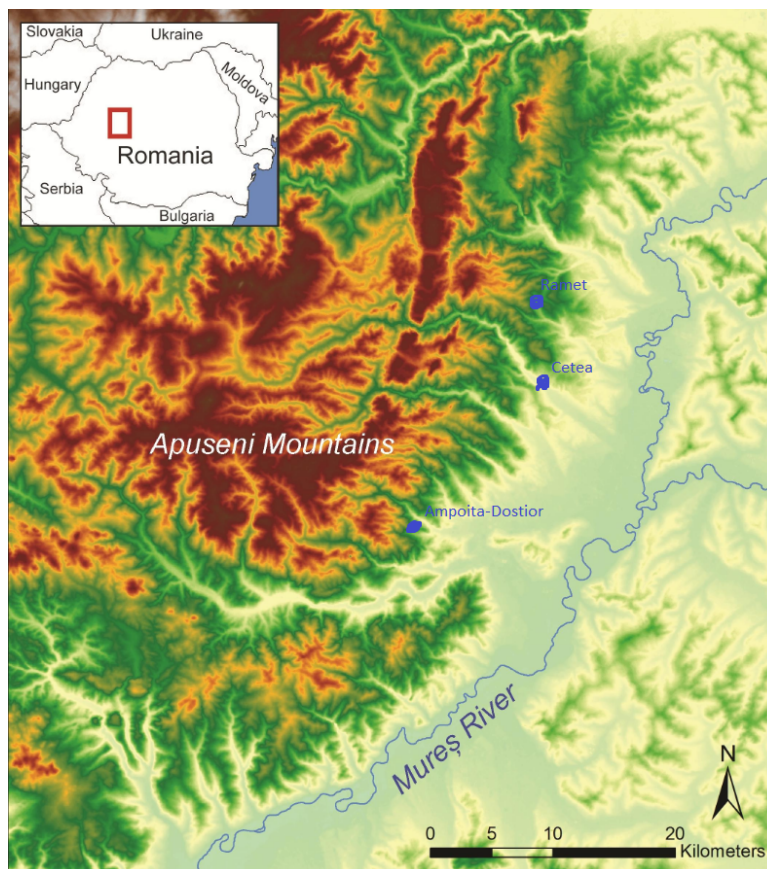
Figure 7. A map indicating the topography of Southwest Transylvania and the locations of Middle Bronze Age cemetery sites with evidence of settlement transformation into graves. Note: Ariceştii-Rahtivani – Movila pe Răzoare is located further south and is not present on this map. (Map adapted from Quinn, Ciugudean, and Beck [2016] by Matthew Fiore)

These maps will be further developed and enhanced once further geographical data is processed.

They will support a series of functions in future analysis of burial site locations in Transylvania,

and serve as a shorthand version of a potential resource available in the development of a

museum exhibit or other method of sharing this information with a wider audience.

Visually representing geospatial data appeals to individuals "seeking location and

experiencing dislocation, bringing order to chaos, exploring ratios of scale, charting new terrains.

Maps act as backdrops for statements about politically imposed boundaries, territoriality, and

other notions of power and projection" (Harmon 2009, 10). Modern interaction with Râmeţ and

archaeological sites informs the process of placemaking through the viewers' interactions with

and interpretations of the material. Archaeological data and materials are enhanced by supplementary information such as maps, in order to facilitate understanding and to explicitly engage people in the process of placemaking that underlies the formation of burial sites. In a similar fashion to placemaking, maps serve to inform the gathering of drone footage which, in turn, helps situate Râmeț for those without much familiarity with the site and inspires deeper associations with the place and considerations about physical transformation of the landscape. Formal exhibition and education strategies can extend the reach of the connections across physical and digital boundaries.

MUSEUM AND TOURISM DEVELOPMENT

Discussion of future museum and tourism development includes the application of placemaking theory to geospatial data in order to analyze and portray the information in accessible formats. There are two potential routes in which museum development could occur, involving the National Union Museum in Alba Iulia and at Râmeț, directly. While the scope of this current research didn't emphasize the logistical limitations that exist for the physical development of an exhibit or museum infrastructure, hypothetical considerations for constructing and sharing the archaeological data with the public are presented below.

Exhibitions: Permanent, Traveling, and Pop-up

Conceptualizing and planning a museum exhibition includes, if even implicitly, consideration of tourism – who will participate in the museum experience – as well as what meaning is being conveyed and constructed. Media archaeologist Erikki Huhtamo (1998) describes the synergy between archaeology and art in his writing, comparing such intentional creative exhibitions with "time machines" in which "the traveler navigates in a much more complex realm of past-present

and present-past, in which layers of time overlap and associate with each other; the conception of time is cyclical rather than linear" (248). Collaborating with the Romanian staff at the National Union Museum in Alba Iulia provided me and the entire research team with greater insight into the values, resources, and territory that are of utmost importance to the current citizenry, and centered their participation in the research effort.

Honoring and maintaining social, cultural, and historical connections to a place in the present contributes to more equitable collaborations. Noting the processes involved in museum functions, researchers have identified specific elements, such as archives, that help people preserve values, as well as "study and manage change, novelty, and the world as process, while addressing transparency, accountability, social justice, and diversity" (Upward, McKemmish, and Reed 2011, 235). Such efforts to acknowledge the impacts of colonialism that continue to exist resonate with explicit efforts of some archaeologists to highlight the evolution of institutional inequalities (Quinn and Beck 2016). These kinds of efforts are precisely what inspired the research team at Râmeț.

The website of the National Union Museum in Alba Iulia proudly states, "For any Romanian who feels Romanian, these two buildings should not be missed because they are perhaps the most important historical buildings in Romania. Equally, foreign tourists who arrive in Alba Iulia are interested in our history" (https://mnuai.ro/). Recognizing that some people may not be able to travel to Romania, opportunities for traveling pop-up exhibitions or virtual visits and tours of exhibitions could extend the reach of information and meaning-making. Museum exhibitions featuring archaeological materials blur the arbitrary lines that exist between distinct disciplines, such as archaeology and art. Huhtamo (1998) underscores this idea by emphasizing the role of technology, arguing that "[a]rchaeologically oriented artists do explore new

technologies, but they simultaneously take a keen interest in using their art as terrain for confrontations with technology-related ideological issues involving class, gender, power, the historical nature of vision, and the relationship between high and low culture" (239). Furthermore, Huhtamo (1998) highlights the interactive nature of exhibitions as especially appealing "to the active participant, who is ready to leave the customary chronological ordering of things, and the safety of his or her own socially and culturally defined observation post, heading out to explore *potential* dimensions in a conversational relationship with the work." (248).

Incorporating maps and drone footage into an interactive museum exhibition, situated in Alba Iulia or accessible via an online museum portal, has tremendous potential for engaging visitors of all ages, nationalities, and various other affiliations. School groups for students of all ages could benefit from curriculum developed to reinforce understanding of information shared, and collaborations with other organizations and cultural groups can be encouraged through social media and other forms of communication.

The relationship between individual and collective memory has been explored by artists and researchers alike. Somerstein (2013), for example, argues that "we don't know and can't remember what we don't see" (14). Archaeologists meet this challenge through fieldwork, material traces and preservation, and communicating with public audiences (Barker 2020). The research process of which I was a part has transformed my own understanding of placemaking theory and the potential that drone technology and mapmaking have for extending the learning into public interactive exhibitions and experiences.

CONCLUSION

In this paper, I have considered the role of various geospatial techniques as a complement to previous examination and analysis of artifacts from Râmeţ, and applied a theoretical framework of placemaking theory to discussion of the site's transformation into an Early Bronze Age cemetery. Questions about the sociopolitical factors that contributed to the transformation of the space have been explored, however further analysis of archaeological materials and site information needs to be conducted before definitive conclusions about site distribution in Transylvania can be made. Analyzing different cultural groups and practices through the perspective of placemaking has offered enhanced understanding of the physical transformation of space from settlement to cemetery in tracking the development of cultural shifts in mortuary practices and interactions during the Early Bronze Age. Implications drawn from tracking these activities have offered potential ideas for the development of an exhibit at the National Union Museum in Alba Iulia, Romania, with discussion of how to convey the archaeological evidence to the public, either at Râmeţ or at the museum, traveling exhibitions made accessible through pop-up installations, or virtual tours.

Without efficient synthesis of archaeology, there would be limited ground upon which a compelling museum exhibit could exist. While archaeology provides data and cultural history, the anthropological work of interpreting and publicizing archaeological information is the way in which the public can absorb and form associations with research findings. This research therefore provides a critical bridge between the larger, ongoing project anchored at the National Union Museum with cultural exchange and relationships forged over time and across geographical boundaries. These serve to validate and affirm the complex identities of the Early Bronze Age cultural groups and their stories.

Works Cited

Ashmore, Wendy. 2014. "On ancient placemaking." In *Of Rocks and Water: An Archaeology of Place,* edited by Őműr Harmanşah, 40-46. Oxford, UK: Oxbow Books.

Barker, Alex. 2020. "Archaeology and museums." *Oxford Bibliographies.* DOI: 10.1093/OBO/9780199766567-0238. Accessed August 11, 2023.

Ciugudean, Horia I. 2011. "Mounds and Mountains: Burial Rituals in Early Bronze Age Transylvania." In *Bronze Age Rites and Rituals in the Carpathian Basin: Proceedings of the International Colloquium from Târgu Mureş*, 8–10 October 2010, Edited by Sándor Berecki, Németh, R.E., and Rezi, B., Editura MEGA, Târgu Mureş, 21–57.

Fisher, Kevin D. 2009. Placing social interaction: an integrative approach to analyzing past built environments. *Journal of Anthropological Archaeology* 28: 439-57.

Fisher, Kevin D. 2010. "Elite place-making and social interaction in the Late Cypriot Bronze Age." *Journal of Mediterranean Archaeology, 22,* no. 2: 183-209.

Frînculeasa, Alin, Bianca Preda, and Volker Heyd. 2015. "Pit-graves, Yamnaya, and kurgans along the Lower Danube: Disentangling IVth and IIIrd millennium BC burial customs, equipment, and chronology." *Praehistorische Zeitschrift 90*(1–2): 45–113. DOI: 10.1515/pz-2015-0002. Accessed August 11, 2023.

Garrett, Bradley, and Karen Anderson. 2017. "Drone Methodologies: Taking Flight in Human and Physical Geography." *Transactions of the Institute of British Geographers*, DOI: 10.1111/tran.12232. Accessed June 25, 2023.

Graves, Nancy. 2019. *Nancy Graves: Mapping.* New York: Mitchell-Innes & Nash.

Harmanşah, Őműr. 2014."Towards an archaeology of place." *Of Rocks and Water: An Archaeology of Place.* Oxbow Books, 2014, 1-12.

Harmon, Katharine. 2009. *The Map as Art: Contemporary Artists Explore Cartography.* New York: Princeton Architectural Press.

Huhtamo, Erkki. 1996. "Time Traveling in the Gallery: An Archaeological Approach in Media Art." *Immersed in Technology: Art and Virtual Environments,* edited by Mary Anne Moser with Douglas MacLeod, The MIT Press, 233-68.

Jacob, Jane. (2011). *The Death and Life of Great American Cities.* New York: Modern Library.

Lefebvre, Henri. 1968. *Le Droit à la ville* [The Right to the City] (2nd ed.). Paris, France: Anthropos.

McLerran, Jennifer. 2010. *Archaeologies of placemaking: Monuments, memories, and engagement in Native North America.* Edited by Patricia E. Rubertone. eScholarship, University of California.

North, Donald C. (Ed.). 1990. *Institutions, Institutional Change, & Economic Performance.* Cambridge, UK: Cambridge University Press.

Panu, Cristian. 2023. "VIDEO: Dismembered human skeleton, 5000 years old, discovered by archaeologists in Alba. He was buried according to a tribal ritual." *Alba24.ro.* https://alba24.ro/video-schelet-uman-dezmembrat-vechi-de-5000-de-ani-descoperit-de-arheologi-in-alba-a-fost-inmormantat-dupa-un-ritual-tribal-991392.html Accessed August 4, 2023.

Pierce, Joseph, Deborah G. Martin, and James T. Murphy. "Relational place-making: The Networked politics of place." *Transactions of the Institute of British Geographers, 36*, no. 1(January 2011): 54-70. https://doi.org/10.1111/j.1475-5661.2010.00411.x Accessed July 7, 2023.

Quinn, Colin P., and Jess Beck. 2016. "Essential tensions: A framework for exploring inequality

through mortuary archaeology and bioarchaeology." *Open Archaeology* 2.1.

Quinn, Colin P., Horia Ciugudean, and Jess Beck. "The politics of placing the dead in Bronze Age Transylvania." *Journal of Archaeological Science: Reports, 34,* Part A (December 2020). https://doi.org/10.1016/j.jasrep.2020.102574. Accessed August 8, 2023.

Rocha, Lenonor, and Gertrudes Branco. 2009. "Archaeological maps: Methods and techniques for territorial analysis." *Archeosciences, 33 (Suppl.)*: 141-142. https://doi.org/10.4000/archeosciences.1461 Accessed August 11, 2023.

Schneekloth, Lynda H., & Robert G. Shibley. 1995. *Placemaking: The Art & Practice of Building Communities.* New York: Wiley.

Somerstein, Rachel. 2013. "We Can't Remember What We Haven't Seen: Media, War, and the Future of Collective Memory." *Afterimage,* vol.40, no. 4, 10-14.

Spence, Charles. (2020). "Senses of place: Architectural design for the multisensory mind." *Cognitive Research: Principles and Implications, 5*, no. 46. https://doi.org/10.1186/s41235-020-00243-4. Accessed August 13, 2023.

Upward, Frank, Sue McKemmish, and Barbara Reed. 2011. "Archivists and Changing Social and Information Spaces: A Continuum Approach to Recordkeeping and Archiving in Online Cultures." *Archivaria,* vol. 72 , 197-237.

Wise, J. Macgregor. 2011. "An Immense and Unexpected Field of Action: Webcams, Surveillance, and Everyday Life." *Global Visual Cultures: An Anthology,* edited by Zoya Kocur. New York: Wiley-Blackwell, 195-210. DOI: 10.1080/0950238042000201590. Accessed August 14, 2023.