Cultural Heritage and Ecosystem Services:
A Qualitative Examination of the Apalachicola Community Context

Supplement report for:
People of the Apalachicola System: Exploring Cultural Heritage as a Vector for Ecosystem Planning, Management, and Adaptation
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Nicole Bucchino Grinnan, M.A., RPA

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Introduction

Northwest Florida's Apalachicola Bay and River system is recognized for its rich ecology and strong cultural ties to the land and waterways. Over generations, communities have relied on the area's abundant natural resources for industries such as seafood harvesting, lumber, and turpentine, integrating these activities into a collective identity tightly woven into local tradition and history. In recent years, however, the area has experienced economic and demographic changes, ranging from a decline in seafood-focused livelihoods to an influx of retirees and new residents seeking coastal lifestyles, placing pressure on both the environment and longstanding cultural practices. Research has noted that such shifts often reveal how interdependent cultural identity and ecosystem health can be, particularly in contexts where livelihoods directly relate to natural resources (Low 1992; Chan et al. 2012).

Considering these shifts, this project set out to investigate the ways local people value ecosystem services provided by the Apalachicola National Estuarine Research Reserve (ANERR) and how those values intersect with broader concerns about cultural preservation and sustainable resource management. Through a combination of focus group workshops, online surveys, and qualitative data analysis, the project team aimed to capture the voices of residents who have inherited multi-generational knowledge of Apalachicola's natural resources and heritage traditions. By exploring how these communities conceptualize and engage with their surrounding environment, this research provides critical insights for policymakers, conservationists, and cultural organizations seeking to balance economic development with preserving the region's defining sense of place. Ultimately, the findings underscore the depth of local attachment to coastal landscapes, an attachment that extends beyond economic utility and into the realm of identity, memory, and community cohesion (Stephenson 2008).

Methodology

Aside from ANERR managers and land co-managers, descendant communities and present-day community members were intended users of this project, providing critical feedback to the project team about how they use and value ecosystem services in the Apalachicola system. To engage these individuals, the project employed focus group-style workshops ("Community Conversations on Heritage at Risk") and online Qualtrics surveys to discuss heritage at risk, past resource use, and planning for the future of cultural resources in the area. These engagement methods were first developed during the "Learning from Loss Program" in 2018, directed by Tom Dawson (Technical Lead for the *People of the Apalachicola System* project) of the University of St Andrews and its Scottish Coastal Archaeology and the Problem of Erosion (SCAPE) Trust and funded by the Scottish Universities Insight Institute. Such participatory research practices have proven valuable in identifying stakeholder priorities and generating community-driven responses to coastal heritage threats (Dawson et al. 2020; Graham et al. 2017). For the *People of the Apalachicola System* project, ANERR staff were consulted on the initial creation of the surveys and the questions for oral interviews during Community Conversations on Heritage at Risk (CCHAR) workshops. The University of West Florida's Institutional Review Board (IRB) and the University of St Andrews Ethics Review then approved these methods ahead of time, requiring the project team to collect written consent from participants. Although the workshops and surveys were open to any community members, the

project team worked with the ANERR's Anita Grove to make sure that important community groups like the North Florida African American Corridor Project (NFAAC) and the Hillside Coalition of Laborers for Apalachicola (H'COLA) were represented.

Three CCHAR focus group-style workshops were held at important community meeting locations across the ANERR in January, February, and March 2024. In each of the one-hour focus group workshops, participants signed prepared consent forms and were prompted to reflect on the cultural heritage of Apalachicola and articulate its personal and communal significance. Prior to the workshops, the project team consulted with local contacts and organizations to identify participants of varying backgrounds. Participants ranged from lifelong residents and waterfront laborers to local government representatives and land managers. This approach sought to ensure that the workshops captured a wide range of experiences, generational knowledge, and perspectives. The discussion opened with participants sharing, "What is your favorite thing about living in the Apalachicola area?" so that each individual could introduce themselves, establish rapport, and ease into the conversation by discussing positive community attributes. From there, the dialogue progressed to questions about the definition of cultural heritage, its significance within Apalachicola, and the specific threats facing local cultural heritage resources. These prompts encouraged participants to link broader conceptual ideas, like the meaning of "cultural heritage," with concrete local examples, including how environmental changes, human development, and socioeconomic factors affect historic sites or traditions.

As the project team aimed to gain insights into how communities might prioritize resources in the face of climate and human pressures, a set of targeted questions probed how participants decide which heritage sites most deserve attention. For example, in response to the prompt "If we can't do further research at or take action to preserve every cultural heritage site, how should we decide which sites to prioritize?", participants weighed the importance of historical relevance, community value, and vulnerability to environmental risks. Later in the workshop, the focus turned to aspirations: participants were asked, "What are your aspirations for Apalachicola-area cultural heritage by 2030?" The candid responses highlighted broad objectives, such as sustaining heritage tourism, supporting intergenerational knowledge transfer, or expanding coastal preservation efforts. Finally, the project team examined how participants envisioned both local agencies and national heritage organizations sharing responsibilities for protecting cultural sites, in line with the question, "In order to achieve these aspirations, where do roles and responsibilities lie?" This conversation segued naturally into discussions of resource allocation, funding, and the potential social and cultural impacts of losing key sites. By structuring the workshop around these open-ended yet focused questions, the project team was able to capture participants' emotional connections to local cultural and environmental resources while gathering suggestions for practical management and policy decisions. The full list of questions asked during the workshops included the following:

1. What is your favorite thing about living in the Apalachicola, Florida, area?
2. How do you define cultural heritage?
3. What is significant about the Apalachicola's area's cultural heritage resources?
4. What are the threats facing Apalachicola-area cultural heritage resources?

5. If we can't do further research at or take action to preserve every cultural heritage site, how should we decide which sites to prioritize?
6. What are your aspirations for Apalachicola-area cultural heritage by 2030? What needs to happen to get there?
7. In order to achieve aspirations, where do roles and responsibilities lie? If work to preserve sites is required, who should pay for this work? (Local community, local authority, national heritage agencies, other?)
8. What would be the impact on the Apalachicola if we lost cultural heritage sites? How do you think people here would feel about it?

Following each one-hour workshop, audio recordings were promptly transferred to secure, encrypted storage to safeguard participant privacy. A project team member then transcribed the audio recordings to create verbatim transcripts of all discussions. During the transcription review process, any potential identifying details, such as specific names, were redacted to uphold the project's confidentiality standards and comply with ethical research guidelines. To help maintain consistency in the dataset, project staff performed quality checks, comparing the transcripts against the original audio and clarifying ambiguous phrases or specialized local terms in consultation with primary project users. Once the transcripts were verified, each file was labeled and cataloged according to workshop date and location.

In addition to the focus group-style workshops, a companion Qualtrics online survey was developed to gather broader insights regarding how community members understand and value local cultural resources. The project team hoped that the survey would provide an opportunity to capture opinions from those who could not join the in-person focus group workshop or those who no longer live in the Apalachicola area but who maintain ancestral ties to the land (e.g., Tribal communities). This survey included multiple-response and Likert-scale items, supplemented by open-ended prompts for richer feedback. Hosted via MyUWF, the survey was designed not to collect any direct personal identifiers such as IP addresses or email addresses. Any inadvertent personal information disclosed through open responses was redacted from the dataset. The survey took participants approximately 15 minutes to complete, though they could skip any questions they preferred not to answer. Finally, participants indicated their consent by clicking "Submit," having been informed that this action signified agreement to the study's terms.

As the project team did not interact with survey participants before taking the Qualtrics survey, questions were formulated to provoke discussion of cultural and natural resources within the ANERR. The full list of questions on the Qualtrics survey included the following:

1. For recreation in the Apalachicola area or along the Apalachicola River, in what kinds of activities do you participate? Check all that apply.
    a. Hiking
    b. Biking
    c. Walking
    d. Paddling

e. Boating
f. Exercising
g. Camping
h. Horseback riding
i. Dog walking
j. Fishing
k. Bird watching
l. General nature appreciation
m. General cultural heritage appreciation
n. Visiting the beach
o. Photography
p. Volunteering
q. Educational programming
r. Research
s. Other (please describe)

2. How do you feel about each of these statements (Strongly Agree; Agree; Disagree; or Strongly Disagree)?
    a. I feel that history has a strong bearing on my life today.
    b. I enjoy learning about the history of the Apalachicola area.
    c. I enjoy learning about the history of cultures in the Apalachicola area other than my own.

3. Please indicate how interested you would be in learning more about Apalachicola area history through an educational program.
    a. Very Interested
    b. Somewhat Interested
    c. Somewhat Disinterested
    d. Very Disinterested

4. When I think of cultural heritage, I think of…
    a. Open answer

5. When I think of archaeology, I think of…
    a. Open answer

6. Have you heard of the following cultural groups that have used the Apalachicola area at some point in the past (I have never heard of this group; I have heard of this group; I am familiar with this group; I identify as a descendant of this group; I identify as an active member of this group)?
    a. Ancestral Period Native Cultures
    b. Choctaw
    c. Creek
    d. Seminole
    e. Apalachee
    f. Spanish Colonials

g. British Colonials
h. African and African American
i. Creole
j. Other Native Tribal Affiliation
k. Other Cultural Affiliation

7. How familiar are you with these types of cultural resources (Not familiar at all; Slightly familiar; Very familiar; Extremely familiar)?
    a. Shell middens
    b. Mounds
    c. Shell rings
    d. Historic lighthouses
    e. Historic homesteads
    f. Spanish missions
    g. Fortifications
    h. Plantations
    i. Shipwrecks
    j. Remains of agricultural activity
    k. Remains of industrial activity
    l. Ship landings, docks, and wharves
    m. Wells
    n. Canals
    o. Historic cemeteries

8. Have you seen any of these cultural heritage resources while in the Apalachicola National Estuarine Research Reserve (ANERR) (Yes; No; Unsure)?
    a. Shell middens
    b. Mounds
    c. Shell rings
    d. Historic lighthouses
    e. Historic homesteads
    f. Spanish missions
    g. Fortifications
    h. Plantations
    i. Shipwrecks
    j. Remains of agricultural activity
    k. Remains of industrial activity
    l. Ship landings, docks, and wharves
    m. Wells
    n. Canals
    o. Historic cemeteries

9. Have you noticed or experienced any of the following effects from climate change while visiting the Apalachicola National Estuarine Research Reserve (ANERR) (Never noticed/experienced; Rarely noticed/experienced; Noticed/experienced a lot; Unsure)?
    a. Increased coastal erosion

b. Increased flooding events
c. Higher water table
d. Increased and intensified storm events
e. Increased temperatures
f. Changes in seasonality
g. Species shift/extinctions

10. If you answered "Rarely noticed/experienced" or "Noticed/experienced a lot" to the previous questions, can you describe what you saw or have experienced?
    a. Open answer

11. What do you see as the biggest threat to cultural heritage resources in the Apalachicola area? Please rank your top three.
    a. Sea level rise
    b. Increased and intensified storm events
    c. Wave action
    d. Development
    e. Management issues
    f. Overuse
    g. Other (please describe)

12. How much do you feel that cultural heritage resources are threatened, given your experiences and responses to the previous question?
    a. Very threatened
    b. Slightly threatened
    c. Not really threatened
    d. Unsure

13. What factors do you think are most important to consider when deciding which cultural heritage resources should get further study or prioritized for preservation? Please choose your top three choices.
    a. Threat level from climate change impact
    b. Potential to provide general information about the past
    c. Potential to inform on lesser-known history or cultural groups
    d. Potential to inform on a specific history or cultural group(s)
    e. Cost of study/preservation strategy
    f. Integrity of site (how much of site is undisturbed)
    g. Value of resource to heritage tourism
    h. Significance of resource to regional history
    i. Significance of resource to local history
    j. Rarity of resource

14. Do you think preserving a cultural heritage resource is as important as preserving the natural environment?
    a. Yes, strongly agree
    b. Yes, somewhat agree

c. Both are equally important
d. No, somewhat disagree
e. No, strongly disagree

15. What do you think is most beneficial about preserving cultural heritage resources in the Apalachicola area?
    a. Open answer

16. Preserving cultural resources can be expensive. Who do you think should pay for preservation work?
    a. Open answer

17. Is there anything else you would like to include about your experience with cultural heritage in the Apalachicola area?
    a. Open answer

Following transcription, the project team used QDA Miner Lite to label recurring themes, patterns, and relationships. An initial set of core themes, like "Community and Identity," "Ecosystem Services," "Heritage Preservation Efforts," and "Concerns for the Future," were divided into subthemes that captured more specific elements of the workshop discussions (e.g., "Intangible Heritage," "Advocacy," and "Site Types"). These categories were defined according to the project's overarching objectives and refined based on iterative reviews of the transcripts. Specific codes were then developed within the subthemes to provide a more nuanced sense of workshop discussions. Codes included ideas related to "Memorialization," "Generational Knowledge," "Water," "Seafood Industry," "Tourism," and others. In total, the project team outlines seven themes, 22 subthemes, and 78 codes for the CCHAR workshops and Qualtrics surveys (see Appendix A).

All unredacted digital materials from both the CCHAR workshops and the Qualtrics survey are housed in a password-protected data management system that restricts access to authorized team members only. This system utilized backup protocols, creating redundant copies of the files both locally and on an institutional server to mitigate the risk of data loss. Throughout the project, data governance principles guided the project team's decisions on how to store, share, and ultimately archive these materials. In alignment with these principles, redacted coded transcripts and related qualitative data will remain accessible for further analysis or follow-up studies but will continue to be handled carefully for participant privacy.

Key Findings

Valuing Ecosystem Services

Toward answering this project's primary research question on how local communities value ecosystem services within ANERR, analysis of the CCHAR audio transcriptions revealed the centrality of natural resources in shaping both livelihood and cultural identity. Consistent with the data outlined in the codebook, "water" emerged as a major point of discussion, accounting for approximately 3.9% of total code occurrences, making it the second-most frequently occurring code overall. Quotes like "I feel like Apalachicola is a place of meetings and like

where the river meets the sea. And I do love all the water that's around" highlight the innate connection many people feel for the area's many waterways. Participants' references to "waterfront" (1.3%) and "outdoor recreation" (0.7%) further underscore the significance of being physically present in, or near, natural waterways. Respondents often mentioned boating, fishing, swimming, and beachgoing as core elements of coastal living that foster a deeper sense of connection to the region.

Economically, the community's reliance on local ecosystem services came through vividly in participants' frequent remarks about the seafood industry (3.6%), which ranked as the third most commonly occurring code. While older industries such as lumber (1.1%), turpentine (1.1%), and cotton (0.2%) were discussed more briefly, references to these legacy sectors signaled their lasting cultural influence. Participants noted how these industries not only shaped local settlement and trade but also contributed to Apalachicola's collective heritage. Even smaller-scale endeavors like beekeeping for tupelo honey (0.2%) appeared in the data, reminding researchers that economic success in the region has historically been, and continues to be, closely tied to natural resource use. One respondent highlighted the significance of natural resource-based industries to the area, particularly seafood:

> …something that's so significant about Apalachicola is that it's one of the only sort of surviving places in this country. There's coastal towns that have survived the longest where there is a working shore, where people who live here work the water and make their living doing so, and bringing that food back to the community, which then feeds what we eat.

Additional codes, including "food consumption" (1.9%), "the general value of natural resources" (1.5%), "natural resource preservation" (0.9%), "hunting" (0.6%), and "ecotourism" (0.4%), reinforce the broader picture of Apalachicola as a place where both cultural identity and economic well-being stem from a dynamic relationship with local ecosystems.

Shifting Economic and Cultural Landscape

Alongside this strong valuation of ecosystem services, the community's future emerged as a recurring theme, particularly given the gradual transition away from a seafood-centered economy. Many participants described a "small town, working waterfront lifestyle," referencing how these day-to-day rhythms anchor their sense of local identity. The codes for "loss of connection to history" (4.1%) and "historic preservation" (4.1%) were tied as the most frequently occurring in the entire dataset, reflecting a heightened concern about losing tangible and intangible aspects of local culture:

> Well, you know, I've been on the restoration team to help restore the oysters, and we've been desperately trying to work with oystermen, but there really aren't any oystermen left. People are running away. Their boats are gone, they're rotted. And, as one said to me, look, I can make $500 a day being a guide. Why am I going to go back to oystering? And, you know, they're now painting houses. They're building houses on the island.

With new residents moving to the region, often retirees attracted by natural beauty and a lower cost of living, longstanding community members reported an urgency to protect not just historic artifacts and sites, but also the ways of life woven into Apalachicola's waterfront heritage.

Participants also expressed apprehension about the challenges that accompany such demographic and economic change. "Tourism" (3.2%) appeared in many comments, viewed by some as an economic boon but by others as a potential driver of congestion and commercial development incongruent with the town's historical character:

> I think one issue that has come up over and over again is, is gentrification, especially here on the Hill where you had very, very small industry housing left over from the timber industry and you had families that had lived here for, you know, 100 or more years. We now have infill of significantly larger homes and the income difference is great and it's causing issues in the community that are sometimes apparent and sometimes not. So I think that that's something we are losing the flavor of some of the neighborhoods because we're a coastal city [and] the prices are quite high. It's very difficult to stay. I know that's true for the entire country. However, especially here.

Further, codes like concerns for "next generation/young people" (2.4%), "gentrification" (1.7%), "lack of employment opportunities" (1.5%), and "high prices" (1.1%) point to growing vulnerabilities in the local social fabric. One participant noted that:

> There is not enough focus on education in Apalach. And educating the kids on history, on culture. And also one big conglomerate coming in and buying up the place and changing the face of the community. And [you can't] turn right or left without a certain company having bought up something. And that's going to change the face, you know. And it also, they're not only buying property and reinventing downtown Apalachicola, it's affecting the Hill and the black community and our Spanish speaking community as well as they're importing workers, they're not developing a workforce from within.

In these discussions, it became evident that while participants recognized the potential advantages of attracting new industries or visitors, they also worried about the cultural costs and whether increasing property values, changing job markets, and an evolving demographic mix might undermine the community's longstanding identity.

Addressing Climate Impacts

Although many participants focused on the immediate economic and cultural changes reshaping the Apalachicola region, concerns about long-term environmental stability also emerged in the data. References to "climate change" (0.7%) appeared in participant discussions

indicating that, while climate impacts might not have been as frequently mentioned as topics such as historical preservation or tourism, they remain a salient issue for a subset of community members. Several participants explicitly connected rising sea levels, increased storm intensity, and erosion to the ongoing challenges of preserving waterfront heritage. One respondent reflected on the meaning of cultural histories and how sensitive they can be to change:

> [Apalachicola is] a place of powerful history, [a] place of black and indigenous resistance that many don't know about. But you can feel it here. The spirit is here. You can feel this place [is] past meeting the future, looking at sea level rise and climate chaos that's coming, it's a place that lives in this really precarious and beautiful balance of the history of this country and then the things to come.

This sentiment reflects a growing awareness that climate-related stressors can exacerbate existing economic transitions and cultural shifts in the area. In particular, the data suggest that climate impacts intersect with other themes, like "water" (3.9%) and "loss of connection to history" (4.1%), by threatening both physical landmarks (e.g., cemeteries and historic structures) and the cultural narratives tied to these places. Participants expressed concerns that escalating climate risks might accelerate community displacement and intensify debates over how to allocate limited resources for preservation. Together, these comments highlight a need to integrate climate adaptation strategies with heritage protection so that both current and future initiatives account for how climate change can erode not just shorelines, but also cultures embedded within the coastal landscape.

Balancing Preservation and Progress

Taken together, these findings reveal a community at a crossroads. Many respondents advocated for an economically diverse future that still values the area's environmental assets and rich cultural legacy. The strong focus on "historic preservation" (4.1%) and "loss of connection to history" (4.1%) indicates that preserving Apalachicola's heritage, whether through safeguarding historic structures, documenting oral traditions, or sustaining working waterfronts, remains a central community priority. Yet, the presence of codes tied to ecotourism (0.4%) and outdoor recreation (0.7%) underscores a collective interest in embracing modern shifts without wholly relinquishing traditions passed down for generations.

In light of these data, efforts to maintain the Apalachicola region's authenticity must attend both to local economic realities and to community members' desire for cultural continuity. In practice, this could mean encouraging collaborations among local businesses, heritage organizations, and governmental agencies to develop strategic plans that protect legacy industries like seafood harvesting while also exploring sustainable tourism. By synthesizing the breadth of themes, like ecosystem services, historical identity, evolving demographics, and climate-related anxieties, the data highlight the intricate interplay between the natural environment and the human communities that define the Apalachicola area's spirit.

Implications for Future Research and Policy

The frequencies and patterns within these codes offer actionable insights for stakeholders and policymakers. Local government officials could leverage the strong community interest in

"natural resource preservation" (0.9%) to shape regulations that balance ecological health with cultural needs. Simultaneously, entrepreneurs or nonprofits focused on revitalizing the "seafood industry" (3.6%) might find robust local support, particularly if they integrate traditions like oyster farming into new, sustainable business models. Meanwhile, calls for more opportunities to keep "next generation/young people" (2.4%) engaged locally emphasize the importance of job training and development programs that align with both heritage preservation and modern economic realities.

Outcomes and Application

The results of this study offer a valuable roadmap for how local heritage, environmental awareness, and economic considerations can converge to shape more sustainable and inclusive decision-making processes. In the immediate term, sharing qualitative data with local community groups, nonprofits, and governmental agencies has already begun new conversations about resource management strategies and heritage preservation efforts. By highlighting how stakeholders perceive the value of cultural and natural resources, these findings have helped identify areas of consensus, like a shared commitment to preserving water quality and the seafood industry, as well as zones of potential conflict, like the tension between tourism growth and a desire to maintain a small-town, working waterfront lifestyle. In particular, workshop participants expressed enthusiasm for cross-sector partnerships that can protect ecological assets while also bolstering cultural continuity. Many pointed to combined efforts in heritage tourism, guided eco-tours, and community-led development programs as tangible next steps.

On a broader scale, the study's outcomes underscore the need for ongoing, community-driven research and capacity building. By pinpointing specific codes that signal emerging pressures, like gentrification or generational outmigration, decision-makers have clearer evidence on where to focus targeted policy interventions. These might include flexible zoning regulations that safeguard public waterfront access, local incentives for young entrepreneurs to remain in the area, or enhanced educational resources that introduce visitors and newcomers to Apalachicola's unique cultural heritage. Additionally, the high occurrence of codes related to "loss of connection to history" (4.1%) and "historic preservation" (4.1%) suggests a pressing need for continued archival, interpretive, and restoration work, reinforcing the importance of collaborating with cultural institutions and local historians. By prioritizing multi-stakeholder dialogue and supporting grassroots initiatives, government agencies and planning bodies can ensure that the community's evolving economic base remains anchored in the region's authentic identity, thus preventing the erosion of its cultural fabric.

Finally, these research findings are poised to inform state- and regional-level policies, especially those aimed at coastal management, cultural resource preservation, and economic development in vulnerable waterfront communities. The dataset highlights a broad-based desire to balance economic vitality with the stewardship of historical landscapes, pointing to opportunities for grant programs or pilot projects that promote sustainable local industries. Similarly, researchers and practitioners looking to replicate or build upon this work will find rich avenues for future inquiry, whether by conducting longitudinal studies that monitor changing code frequencies over time, examining comparative cases in other coastal areas, or developing best practices for inclusive community engagement. Through this iterative process of feedback,

collaboration, and continued dialogue, Apalachicola's experiences and strategies can ultimately serve as a model for how tightly knit coastal communities can thrive while preserving the identity, history, and environment that define them.

Conclusion

The *People of the Apalachicola System* project's CCHAR workshops, Qualtrics surveys, and subsequent qualitative data analysis process proved to be an important learning experience for both the researchers and participants. Many attendees expressed gratitude for having an organized forum to share personal histories, voice concerns about dynamic coastlines, and articulate their visions for preserving Apalachicola's heritage. This open exchange was facilitated by deliberate efforts to create an inclusive environment, including hosting sessions at accessible community spaces and scheduling around other community events.

During the workshops, a noticeable sense of collective pride emerged whenever participants recounted personal anecdotes tied to the coast, whether describing family traditions of harvesting oysters, recounting past hurricane stories, or recalling the historical significance of waterfront activities. There were also moments of tension when discussing how best to protect these traditions from environmental pressures, as some participants felt immediate actions were needed, while others feared that over-regulation or hastily conceived initiatives might restrict community autonomy. Reflecting on these differing perspectives, the project team found that one of the most significant outcomes of the workshops was not just the identification of key cultural heritage or environmental concerns, but also the platform it provided for community members to negotiate possible next steps collaboratively. This negotiation underscored the importance of continuous dialogue, as well as the need for resource managers and policymakers to remain actively engaged with the community when shaping conservation or restoration initiatives. Indeed, ANERR Coastal Training Program and Communications Coordinator Anita Grove expressed interest in translating the format of the CCHAR workshops to her activities with the City of Apalachicola.

This project underscores that maintaining cultural identity, fostering community well-being, and preserving ecological integrity are deeply intertwined goals, particularly in places like Apalachicola where livelihoods and heritage rely so heavily on the health of coastal ecosystems. Through a careful focus group methodology, rigorous qualitative data analysis, and thoughtful interpretation of survey responses, the project team has sought to demonstrate how residents perceive the value of ecosystem services, express concerns about economic transitions, and articulate the importance of safeguarding historical continuity for future generations. The project team hopes that insights will prove invaluable for community members, resource managers, and policymakers, offering both a nuanced snapshot of current perspectives and a roadmap for how to effectively integrate cultural and environmental considerations into planning processes.

Equally important is the realization that many of the challenges, like shifts in industrial focus, population changes, and climate-related threats, are ongoing and require long-term, adaptive strategies to address. By centering community voices in the research process and taking care to ensure that findings remain accessible to stakeholders, this project also hopes to build a foundation for continued dialogue and shared problem-solving. Ultimately, the lessons learned

here about balancing heritage preservation with economic modernization and coastal stewardship can serve as a model for similarly situated waterfront communities, highlighting the power of inclusive, collaborative research to drive more resilient and culturally responsive outcomes.

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Appendix A

"People of the Apalachicola System: Exploring Cultural Heritage as a Vector for Ecosystem Planning, Management, and Adaptation" Community Conversations on Heritage at Risk (CCHAR) and Qualtrics Survey Codebook

Themes	Subthemes	Codes	Occurence Count	% of Total Occurrences
Heritage preservation efforts	Advocacy	Historic Preservation	22	4.10%
		Value in heritage	6	1.10%
		Responsibility	10	1.90%
		Accountability	1	0.20%
	Processes of preservation	Memorialization	8	1.50%
		Finding money	10	1.90%
		Prioritization of work	14	2.60%
		Oral histories	6	1.10%
		Documenting	8	1.50%
		Museum/Exhibiting	3	0.60%
	Concerns for preservation	History	10	1.90%
		Inability to teach difficult histories	6	1.10%
		Physical destruction	2	0.40%
			106	19.90%
Community and identity	Diversity in community	Black community	11	2.10%
		Spanish-speaking community	1	0.20%
		The Hill	6	1.10%
		Indigenous people	14	2.60%
		Chinese community	1	0.20%
		Community diversity/Demographics	10	1.90%
		Immigrant community	3	0.60%
		Greek community	1	0.20%
		Italian community	2	0.40%
		Irish town	1	0.20%
	Intangible heritage	Tradition	9	1.70%
		Family	1	0.20%
	Cooperation	Participating in activites together	4	0.70%
		Working together/volunteering	19	3.60%
	Knowledge transfer	Generational knowledge	5	0.90%
		Generational history	5	0.90%
	People	People	8	1.50%
		Human Settlement	1	0.20%
			102	19.20%
Ecosystem services	Food	Hunting	3	0.60%
		Food	10	1.90%
		Water	21	3.90%
	Locations	Waterfront	7	1.30%
		Outdoor recreation	4	0.70%
	Employment	Lumber industry	6	1.10%
		Cotton industry	1	0.20%
		Seafood industry	19	3.60%
		Beekeepers	1	0.20%
		Turpentine	6	1.10%
	Natural Resource Value	Natural resources	8	1.50%
		Natural resource preseration	5	0.90%
	Eco-tourism	Eco-tourism	2	0.40%
			93	17.40%
Quality of life in Apalachicola area	Economy	Employment	8	1.50%
		High prices	6	1.10%
		Materialism (luxury)	2	0.40%
		Tourism	17	3.20%
	Infrastructure	Big city	3	0.60%
		Small town	6	1.10%
		No big development	8	1.50%
		Managed land	4	0.70%
		Not much change	7	1.30%
	Services	Health	3	0.60%
		Education	15	2.80%
		Local government	13	2.40%
			78	14.60%
Concerns for the future	City/Community	Growth	6	1.10%
		Next generation/young people	13	2.40%
		Cultural conflict	1	0.20%
		Continued conversations	3	0.60%
		Gentrification	9	1.70%
		Change	10	1.90%
		Resort vision	3	0.60%
		Loss of connection to history	22	4.10%
	Natural	Climate change	4	0.70%
		Fragility	1	0.20%
			72	13.50%
Places and conditions of historical events	Site types	Prospect Bluff	8	1.50%
		Archaeology/archaeological sites	7	1.30%
		Cemeteries	11	2.10%
		Shell middens/mounds	5	0.90%
		Historic structures	11	2.10%

	Circumstances of history	Enslavement	4	0.70%
		Resistance	5	0.90%
			51	9.50%
Emotions connected to heritage	Modern	Apathy	5	0.90%
		Disempowerment	3	0.60%
		Neglect	2	0.40%
	Historical	Displacement	3	0.60%
		Historical trauma	5	0.90%
			18	3.40%