TURTLEIZING MARINERS –THE TRANS-ATLANTIC TRADE AND CONSUMPTION OF LARGE TESTUDINES IN 16TH- TO 18TH-CENTURY MARITIME COMMUNITIES

A Dissertation

By

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ABSTRACT

Turtle, tortoise, turpin, and terapen (terrapin) are just a few of the wide variety of terms found in primary documents of the maritime world to refer to reptiles belonging to the order Testudines. These animals were a heavily exploited resource during the 16th through the 19th centuries as a commodity for Europe and a convenient shipboard food. Throughout the Age of Sail, the green sea turtle was a vital food source for mariners, mentioned across a wide array of historical sources, from ship logs and sailors' journals to newspapers, letters, art, and literature. Cross-referencing and comparing these works with archaeological data identifies patterns of culture in shipboard and coastal community life that contrast with trends identified in urban consumer centers, which were often a destination for this commodity.

This study seeks to reconstruct more than merely a nutritional narrative but to identify the cultural contexts of Testudines meat use by maritime communities and how this relates to larger societies. This work will create a better understanding of sailor life during this period by providing an insight into the intersection between daily maritime life and larger forces such as economics and ideology.

The evidence examined in this study highlights political and cultural events that directly contributed to the over-hunting of sea turtles and the depletion of their population. This new interpretation of past sea turtle and human interaction has beneficial applications to modern conservation efforts focused on wild sea turtle populations. Coastal communities have a longstanding relationship with these animals, which are significant

elements of regional subsistence and culture. Archaeological excavations of both coastal sites and shipwrecks have produced faunal assemblages containing significant numbers of sea turtle elements, creating a need to understand the functional, historical, and cultural role of these animals in past maritime communities. Inquiry along these lines will facilitate applying cultural relativism in the development of modern sea turtle conservation programs. The use of historical particularism to understand paradigms of human and turtle interaction is essential to fully understand the current endangered status of the latter.

DEDICATION

To Clara and Paul Hagseth for serving as my “rubber duck.”

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Contributors

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Dr. Donny Hamilton provided access to the assemblage and original excavation data from the Texas A&M University excavation of the Port Royal site in Jamaica. The assemblage and excavation data analyzed for Chapter 5 was provided by Dr. Leshikar-Denton and the Cayman Islands National Museum. The analyses were presented by myself at the 2020 Society of Historical Archaeology Annual Meeting.

All other work conducted for the dissertation was completed by myself independently.

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NOMENCLATURE

BIO	Biomass
CINM	Cayman Islands National Museum
CITB	Cayman Islands Turtle Bone (Site)
INA	Institute of Nautical Archaeology
MNI	Minimum Number of Individuals
MTWGT	Meat Weight
NISP	Number of Identified Specimens
SCL	Straight Carapace Length
SHA	Society of Historical Archaeology
NMNH	Smithsonian Institution National Museum of Natural History
SPNO	Number of Species
TAMU	Texas A&M University

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1. INTRODUCTION

"Steward—'Have you got any beef?' Answer—'No!' 'Eggs?' 'No!' 'Milk?' 'No!' 'Any chickens ashore?' 'No!' 'Veal' 'No!' 'Mutton' No!' Steward (in despair and a clean shirt)—'Have you anything to eat on this island?' 'Oh yes—turtle—lots of it.' So sundry green turtles were brought on board, and we have been turtleized in every conceivable form in which turtle ever has been cooked." --Frank Leslies Weekly 17 October 1857.

Turtle, tortoise, turpin, and terapen (terrapin) are just a few of the wide variety of terms found in primary documents of the maritime world referring to reptiles belonging to the order Testudines. Throughout the Age of Sail, the green sea turtle was a vital food source for mariners, and the "turtleizing" of the ship's crew mentioned in Frank Leslies Weekly was a common occurrence aboard vessels involved in West Indies trade.[1] These animals were a heavily exploited resource from the 16th through the 19th centuries, being well suited for the shipboard diet. Large sea turtles could feed whole crews, were easily kept alive on ship decks or in holds as a source of fresh meat and were often believed to have curative powers for several ailments that plagued sailors. The consumption of turtle meat and byproducts is mentioned across a wide array of historical sources, from ship logs and sailors' journals to newspapers, letters, art, and literature.[2] Cross-referencing and comparing these works with archaeological data identifies patterns of culture in shipboard and coastal life that contrast with trends identified in urban consumer centers, which were

[1] Turtle became so important in sailor's diets that Thomas Gage, an English Jesuit traveling in the late 1640s referred to it as "Beef of the Marine," and letters from captains to Navy Commissioners from 1661-1668 describe its necessity to feed the crews of eastbound ships. Convertito 2011, 79-80.

[2] William Whitecar worked on a whaler during the mid-nineteenth century and recalls keeping terrapins in the lower hold for twelve to fifteen months, Whitecar 1864, 97; An excellent iconographic example of this practice is presented in "JUMA" from the October 4, 1879 issue of *The Graphic*.

often a destination for this meat. This study seeks to reconstruct more than simply a nutritional narrative, but to identify the cultural contexts of testudines meat use by maritime communities and how this relates to broader social paradigms and foodways. This work will create a better understanding of sailor life during this period by providing insight into the intersection between daily maritime life and larger forces such as economics and ideology.

My research focus was driven in part by access to two faunal assemblages from roughly contemporaneous archaeological sites: Port Royal, Jamaica (late 17th century), and a turtle fishing camp on Grand Cayman (early 18th century). This lead me on a search through historical sources to contextualize the English exploitation of turtles at these sites that was manifested in the archaeological record. What surfaced was a narrative of social transition, where, for the English, the West Indies green turtle shifted from a common sailor's food to a high-status symbol over the course of about a century. While green turtle consumption also simultaneously gained prestige among other European elites, a combination of political and cultural factors, like England's control of the Cayman Islands turtle fishery, lead to a human-animal interaction that was unique.

While my dissertation intensely examines this English (later British) experience with green sea turtle, it is important to acknowledge that the West Indies green sea turtle was a significant dietary element of not only other European powers in the Caribbean, but also of indigenous populations. Lisabeth Carlson and William Keegan have done noteworthy work in documenting the exploitation of sea turtles and other local fauna in the prehistoric West Indies through archaeological case studies of Amerindian sites in

Haiti, Jamaica, the Turks and Caicos Islands, and the Bahamas.[3] They found that food selection was primarily driven by resource availability; on islands where turtles nested or fed in shallows, they were hunted and turtle populations there were severely depleted.[4] Lee Newsom and Elizabeth Wing expanded the narrative of indigenous plant and animal use in the West Indies from the Archaic to the arrival of Europeans.[5] Jack Frazier reviewed literature on marine turtle remains from 52 pre-Columbian Caribbean sites and pointed out that exploitation of sea turtles may have been significantly higher than currently implied by the low numbers of bones recovered. Due to the fact that fishers likely processed carcasses at undiscovered beach kill sites, relatively few bones would have made it back to the habitation sites where the meat was actually consumed.[6] Despite this indigenous exploitation, there was still a very large population of green sea turtles in the Caribbean when the Europeans arrived.[7]

It was this intersection of extant indigenous turtle fishing practices, turtle population abundance, and European demand that produced the archaeological sites discussed in this dissertation. The evidence examined in my study highlights the political and cultural events that directly contributed to the over-hunting of sea turtles, and the depletion of their populations. This anthropological interpretation of the historical narrative has beneficial applications to modern conservation efforts focused on wild sea turtles. Local coastal human communities, like those of the Cayman Islands, have a long-

[3] Carlson and Keegan 2004.
[4] Carlson and Keegan 2004, 103.
[5] Newsom and Wing 2004.
[6] Frazier 2002, 18.
[7] Christopher Columbus remarks on nesting turtle populations, Cohen 1969, 173-4.

standing relationship with these animals, which figure prominently in subsistence and culture. Historical and archaeological studies have introduced the need to understand the functional, historical, and cultural role of sea turtles in past maritime communities to facilitate applying cultural relativism to the development of modern sea turtle conservation programs.[8] This approach will enhance these initiatives and contribute to a more successful implementation. The use of historical particularism to understand these longstanding relationships between humans and turtles is essential to fully understand the current endangered status of the latter.

1.1. Scholarship on Human Exploitation of Sea Turtle Populations

Archaeological evidence shows the human exploitation of sea turtles goes back to at least 5000 BCE in the Arabian Peninsula, and plastron and carapace fragments from Mediterranean sites date back to the Early Bronze Age.[9] Cut marks and association with cooking and rubbish disposal indicate that turtle was being eaten by humans, but there is also evidence of ritual use of turtle elements. Green sea turtle shells have been found included with human burials at Ra's al-Hamra, an eastern Arabia site.[10] Sea turtles have been featured in decorative motifs and seals from ancient Mesopotamia and some of the earliest geek coins depict them as well.[11] Casson pointed out that a high volume of trade in turtle shell existed in antiquity in the Mediterranean and the Indian Ocean. His study

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[8] Dr. Roger C. Smith (1985) worked extensively in the Caymans studying their maritime history producing publications such as "The Caymanian Catboat: A West Indian Maritime Legacy," in *World Archaeology* and (2001) *The Maritime Heritage of the Cayman Islands*.
[9] Frazier 2002, 3.
[10] Frazier 2002, 3, 5.
[11] Frazier 2002, 20, 22.

of the *Periplus* text showed that tortoise shell (both from terrestrial and marine turtle) was used by the Greeks and Romans in a large number of ornamental objects and inlays. It was mentioned in reference to every port the author of the *Periplus* described.[12] Parsons produced a wide-ranging overview tortoise shell trade (hawksbill scutes) from the 15th century BCE through the Middle Ages covering Egyptian, Roman, Arabian, and Chinese involvement in the exchange of this commodity.[13] Thorbjarnarson et al further pursued this line of study examining sea turtle exploitation up through the 19th century, focusing again on the ornamental use of turtle scutes.[14]

The most comprehensive study of modern human and sea turtle interaction was done by Alison Rieser in her book *The Case of the Green Turtle: An Uncensored History of a Conservation Icon*.[15] Rieser's stated goal in writing the book was to present a history that lead to the classification of green sea turtle as legally endangered to address the debate surrounding the efficacy of mariculture at preserving modern sea turtle populations. In light of this goal, Rieser focuses on the commercial exploitation of sea turtles in the 19th and 20th centuries.

These narratives (with the exception of Rieser) focus heavily on the exchange and use of turtle scutes for ornamental purposes. There is a need for more scholarship on the historic consumption of turtle meat and biproducts to "flesh out" our understanding of human and sea turtle interactions. This is a lacuna my dissertation attempts to address in

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[12] Casson 1989, 101-2.
[13] Parsons 1972.
[14] Thorbjarnarson et al. 2000.
[15] Rieser 2012.

regards to the English cultural adoption of the West Indies green sea turtle through examination of historical and archaeological evidence with an anthropological interpretive lens.

1.2. Biology and Nomenclature

Before diving into the archaeological data, it is essential to establish an understanding of the biology and terminology of the species involved. As the majority of seafaring accounts are not written by biologists, phylogeneticists, or taxonomists, there is a wide diversity of terms applied to the reptiles belonging to the order of Testudines, which includes turtles both terrestrial and aquatic as well as tortoises. Not only are there regional differences in naming or describing these animals, but variations throughout time add another dimension of confusion to the problem of identifying species in these texts. Authors may ascribe names based on whether the animal is used as food or its shell sold as a luxury commodity. Sailors well-seasoned in the West-Indies trade may refer to local common names while, on the other hand, whalers, familiar with the small northern terrapin, extend that term to anything with a shell and four legs. To fully understand Testudines in maritime culture and trade, it is necessary to identify and define the various nomenclature used by those in the sailing community.

Barber-surgeon and buccaneer Alexander Exquemelin arrived in the West Indies as an indentured servant in 1666. Exquemelin's account of his experiences with famous Caribbean pirates gained widespread popularity in his book titled *Buccaneers of*

America.[16] In his text, Exquemelin refers to the sea turtle as both turtle and tortoise. When referencing the animal directly, he seems to refer to them as sea-tortoises, or simply tortoise, as is the case when he mentions that the Island of Tortuga was named so because of its resemblance to the sea-tortoise. When describing expeditions sent to capture the animal, he calls the activity "turtling." Despite this seeming correlation, Exquemelin remains very inconsistent, also referring to "tortoise fishermen" as well as mentioning that pirates of the West Indies provision with fish, sea-fowl, and turtle. [17]

Nearly two hundred years later, there continued to be confusion and amalgamation of terms used for Testudines. Opponents of General Andrew Jackson claimed he was illiterate and not fit for the U.S. presidency, citing as their proof a note of gratitude he wrote in response to the receipt of a gift of sea turtle. In his letter, General Jackson referred to the animal as a tortoise. Jackson supporters were quick to investigate the matter. Upon consultation of a dictionary (the publisher of which was not made clear), they proved that *turtle*, according to their source, referred only to the turtle dove and that only sailors and illiterate people corrupt it to refer to the West Indies sea tortoise. The *Vincennes Gazette* mentions the anecdote in later editorial discussing the etymology of "turtle".[18]

The Hoboken Turtle club weighed in on the issue in 1886. In *Frank Leslies Weekly*, they refer to *turtle* as a modern slang term, pointing to Christopher Columbus' use of the term tortoise as proof of the proper usage when referring to Cheloniidae. It is

[16] Payton 2013, 337-8.
[17] Exquemelin 1911, 14, 20, 52, 208, 212, 216.
[18] *Vincennes Gazette* December 10, 1859.

now generally agreed upon this slang is appropriate in modern times.[19] The current Merriam-Webster Dictionary defines turtle as any animal belonging to the order Testudines, which includes both land tortoises and marine reptiles. Interestingly, the entry for tortoise includes only terrestrial members of the family Testudines.[20] It seems Americans, at least, have wholeheartedly adopted the slang.

The entire issue is mired in further confusion by a particular segment of the maritime community, whalers. Pacific whalers would stop by the Galapagos in the nineteenth century to reprovision with tortoises as a source of fresh meat. Those on whaling ships called this brief stopover for turtles "Turpining." Logbooks and journals from those aboard whalers refer to tortoises almost exclusively as terrapin, even though this term technically relates only to small aquatic turtles of the *Emydidae* family. There is no consistency in the spelling of terrapin either, ranging from "turpin," "terapen," "turpen," and a variety of other imaginative ways to arrange the letters t, a,e, i,p, r, and n.[21]

1.2.1. Chelonii

This confusion of nomenclature, coupled with the fact that maritime historical documents rarely mention any but the green turtle by name, geographic context can sometimes be useful in efforts of identification. The Cheloniidae, or marine turtles, are, in general, a circumglobal group. The seven surviving species include the green turtle

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[19] *Frank Leslies Weekly* July 17, 1886.
[20] *Merriam-Webster.com* 2017, "Turtle", "Tortoise" https://www.merriam-webster.com/dictionary/turtle, accessed 7 March 2017.
[21] Townsend 1925, 55-98.

(*Chelonia mydas*), flatback (*Natator depressus*), loggerhead (*Caretta caretta*), hawksbill (*Eretmochelys imbricata*), olive ridley (*Lepidochelys olivacea*), Kemp's ridley (*Lepidochelys kempi*), and leatherback (*Dermochelys coriacea*).[22] Figure 1-1 shows the average size of the sea turtles most pertinent to this dissertation.

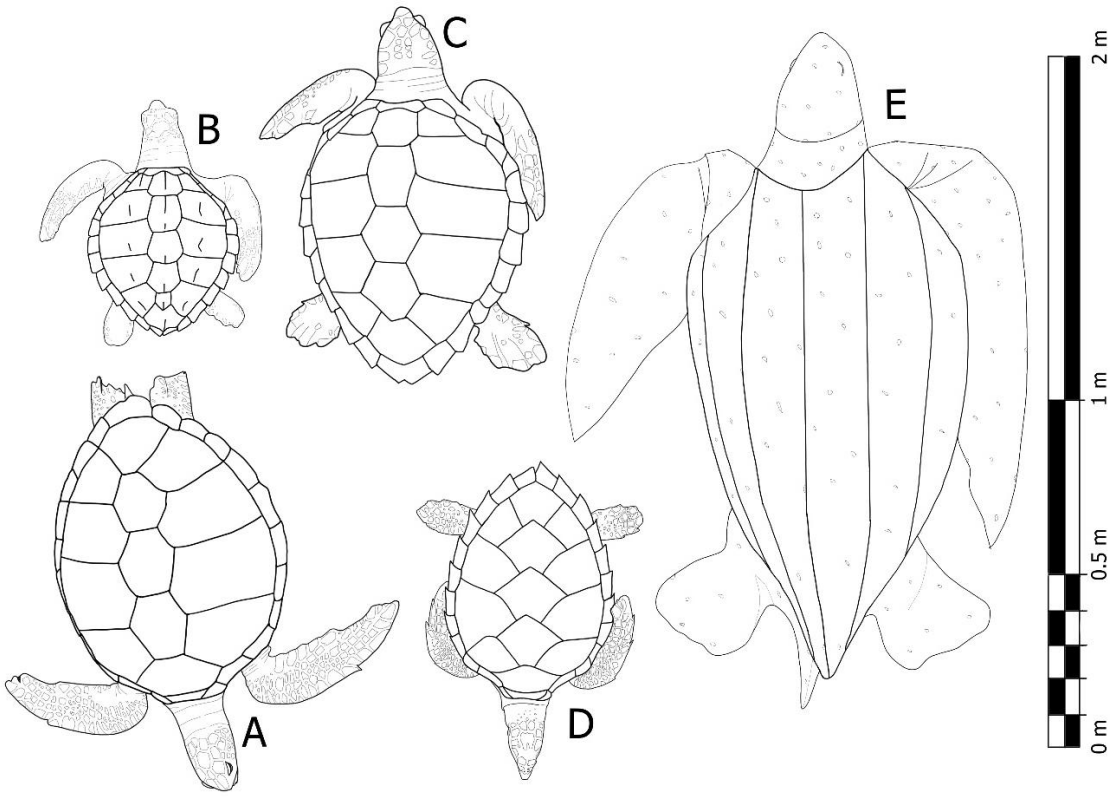

Figure 1-1. Visual sea turtle species reference. (A) *Chelonia mydas*, green turtle, (B) *Lepidochelys olivacea*, Olive Ridley, (C) *Caretta caretta*, loggerhead, (D) *Eretmochelys imbricata*, hawksbill, (E) *Dermochelys coriacea*, leatherback. Drawing by author.

[22] Lutz and Musick 1997, 16-25; black turtle, *Chelonia agassizii*, is a name for pacific green turtle that has a darker shell than typical *Chelonia mydas*, current standards are to include these turtles in the *Chelonia mydas* group, the Integrated Taxonomic Information System (ITIS) currently ranks *Chelnoina agassizii* as invalid. This dissertation will consider black turtle as part of the *Chelonia mydas* group. ITIS 2020.

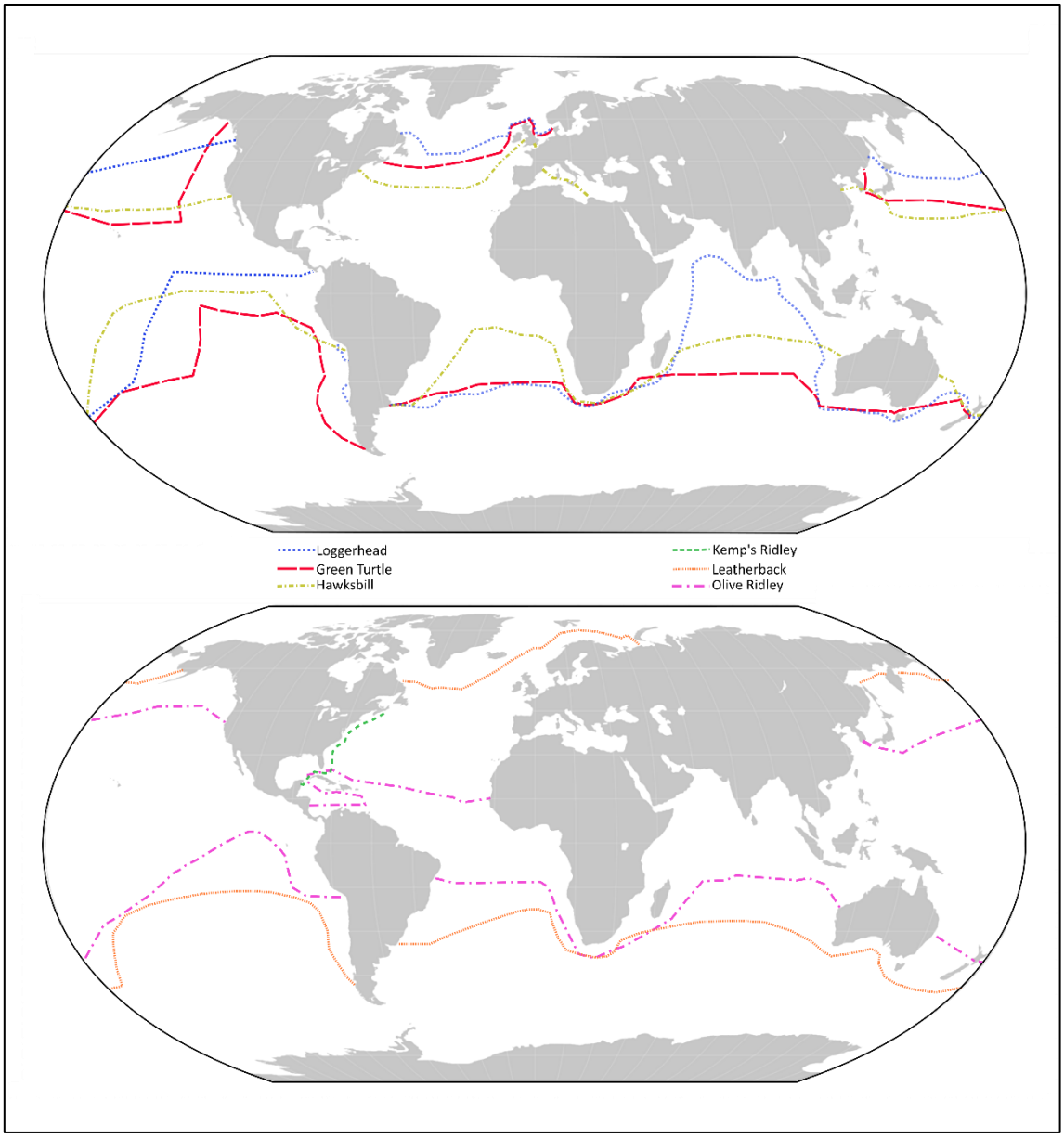

Figure 1-2. Approximate species range for major sea turtle groups. After NOAA Fisheries, 2019. "Sea Turtles." https://www.fisheries.noaa.gov/sea-turtles, accessed 13 September 2019.

However, since many of these species share distribution ranges, it is difficult to determine which type of turtle a primary source mentions based on location alone (figure 1-2). On the uncommon occasion when verbal descriptions of the animal are detailed enough, it is

sometimes possible to identify species by key physical features. Transatlantic trade caused a significant explosion in the exploitation of three primary species, which repeatedly make appearances in seafaring accounts: *Chelonia mydas*, *Caretta caretta*, and *Eretmochelys imbricata*.[23]

Prized for its meat, the green turtle (*Chelonia mydas*) migrates great distances between nesting and feeding grounds, bringing it frequently into contact with mariners.[24] Colonial travelers like John Josselyn in 1638 affirm that green turtle is a wholesome and restorative food.[25] A single pair of prefrontal scales, four lateral scutes, and four inframarginal scutes without pores identifies the green turtle. In addition, their skull has a short snout, shallow parietal notches, and is, in general, more rounded.[26] Green sea turtles exhibit high nesting site fidelity, and nest during the warmer months. Currently, its most important nesting and feeding grounds are located in the tropics, ranging from northwestern Costa Rica in the west to barrier reef islands in the east, and remote volcanic islands in between. Initially omnivorous, upon reaching 20-35 cm in carapace length, green turtles become herbivores, consuming primarily seagrasses and algae.[27] Figure 1-3 shows the generalized life cycle of green turtle, along with the definition of size categories as described by Hirth.[28]

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[23] A species reference is included in Appendix A.
[24] Bowen et al. 1992, 865.
[25] Josselyn 1865 29-31.
[26] Wyneken 2001, 4, 13.
[27] Lutz and Musick 1997, 1:17-46, 54. 200-1. Young green sea turtles are predominantly carnivorous before they reach 20-35 cm, although they do consume some vegetal material.
[28] Hirth 1997, 6, 15.

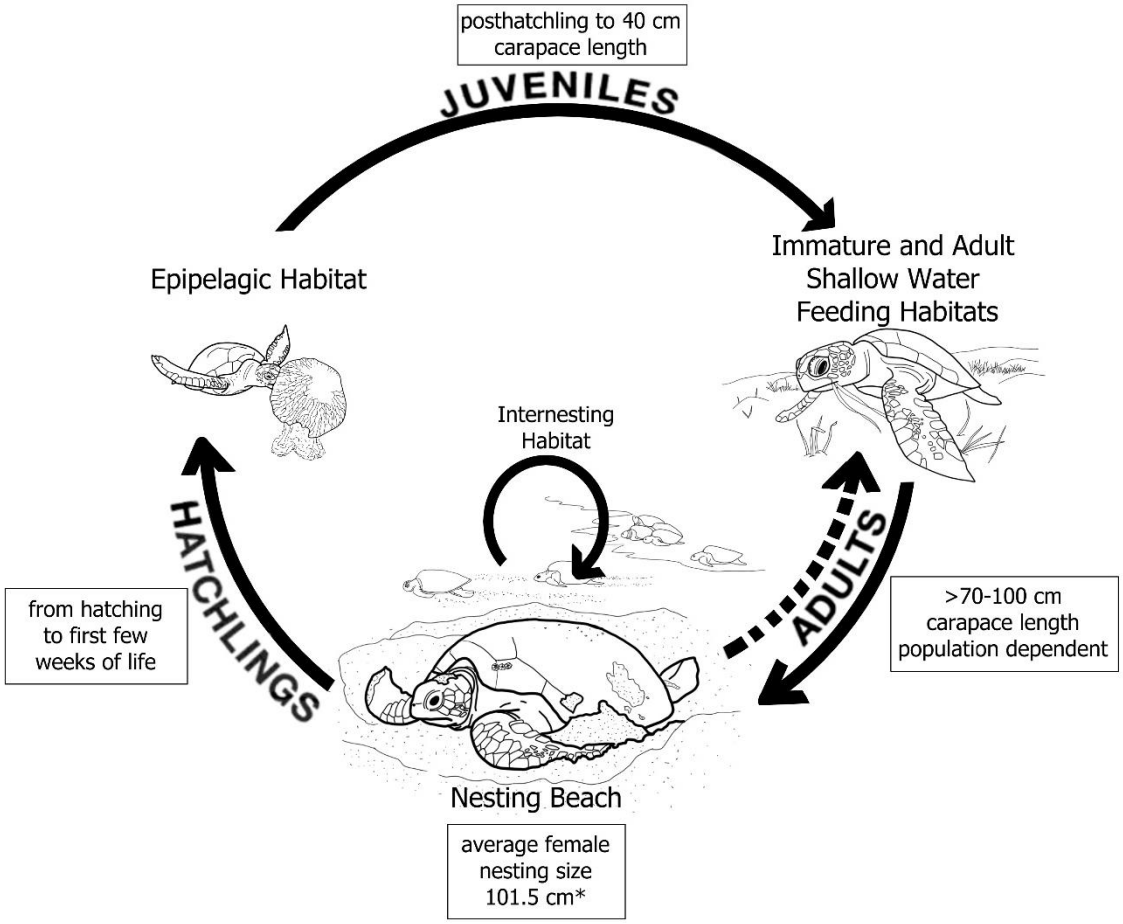

Figure 1-3. Generalized life cycle of green sea turtles. Drawing by author after Hirth 1997, figure 8. (*) denotes average carapace length was taken from adult nesting females in Florida, from Goshe 2009, 1.

Human exploitation of loggerheads as a food source did not match the scale of human exploitation of green sea turtles for that purpose. In general, a significant number of modern cases of loggerhead capture are only incidental, and although their shell has at times in the past been employed in decoration, it is not as popular for this purpose as other species like hawksbill. The distribution map provided in figure 1 is somewhat misleading, in that loggerhead range is primarily antitropical, fragmenting into more or less isolated groups in the Indian Ocean, eastern Australia, southeastern U.S., areas of the

Mediterranean, and southern Brazil. Some human communities do consume their eggs, and like green sea turtles, they tend to nest during the warmer months.[29] For example, loggerhead eggs, and nesting females were heavily harvested for local consumption along the coast of Brazil until the 1980s and similarly in the east, loggerheads are currently taken at Cape Verde due to local traditions.[30] Loggerheads can be identified by more than one pair of prefrontal scales, five lateral scutes, and three inframarginal scutes without pores. Their shells are also often covered in epibiont communities. This species exhibits a relatively large head that is wide towards the back of the skull with a tapering snout and a robust, V-shaped jaw.[31]

Similar to loggerheads, hawksbill turtles were not, in general, a desirable source of meat. Yet, combs, inlays, brooches, and other adornments made out of their shells were commodities much coveted by Europeans. Between 1773 and 1775, the *Harrop's Manchester Mercury and General Advertiser* ran no less than 29 notices of tortoiseshell shipments, which likely were hawksbill. Although many European mariners remarked that hawksbill was inedible and described the green turtle as the only palatable species, while at sea practicality sometimes outweighed taste preferences. Richard Crocker, an English officer sailing in the 18th century, describes crewmen using a boat to capture a hawksbill turtle sleeping on the water. It was cooked, served, and eaten, even though the "fishy" taste was disparaged.[32] In reef habitats such as the Caribbean and Australia, the

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[29] Lutz and Musick 1997, 1:19-46, 54, 200-1.
[30] Marcovaldi and Chaloupka 2007, 134; Marco et al. 2012.
[31] Wyneken 2001, 4, 16.
[32] Crocker 1799, 54-5.

sub-adult hawksbill turtle is the most common species seen. Adult hawksbills are pelagic, living mostly in the open ocean alongside *Sargassum* rafts. Unlike green sea turtles, they are omnivores, although they consume chiefly sponges in the Caribbean.[33] The heads of hawksbill turtles are long and narrow with a tapering snout. Like loggerheads, they have a V-shaped jaw, but it is narrower and more gracile. Furthermore, they have two pairs of prefrontal scales, imbricated scutes, four lateral scutes, and four inframarginal scutes without pores.[34]

1.2.2. Morphological Characteristics of Turtle Skeletal Structures

When identifying members of the order Testudines in the archaeological record, turtles have several specialized skeletal structures that differentiate them from other orders. These generally include flattened limbs with five toes on both the front and hind feet, and a carapace and plastron. Several features can further distinguish sea turtles. For example, the coracoid is particularly robust in comparison to other Testudines, this being the attachment site of the flipper retractor and abductor muscles. Key elements useful to the archaeological identificaiton of Chelonii include carapace, plastron, skull, humerus, and femur. Appendix A includes a reference guide for some of these features, which are described here in brief, and Jack Frazier has done extensive work developing a methodology for identifying culturally modified marine turtle bones in the archaeological record.[35] Koolstra, Küchelmann, and Çakırlar have additionally published an excellent

[33] Lutz and Musick 1996, 1:20-46, 54. 204-5.
[34] Wyneken 2001, 4 and 21.
[35] Frazier 2005.

resource for distinguishing between the species *Chelonia mydas* and *Caretta caretta*, which is valuable for zooarchaeological identification and analysis.[36]

1.2.2.1. Carapace

The carapace (figure 1-4) is the boney structure that underlies the keratinous scutes, often referred to as the turtle shell. The outermost component of the carapace is a ring of pleural bones which in circumstances of excellent preservation can maintain the scute pattern. If this pattern is retained, it can be used as a method for species identification as outlined above; yet, the taphonomic processes present in coastal and underwater archaeological sites generally cause surface erosion to pleural specimens, which limits their usefulness in identification to the species level.

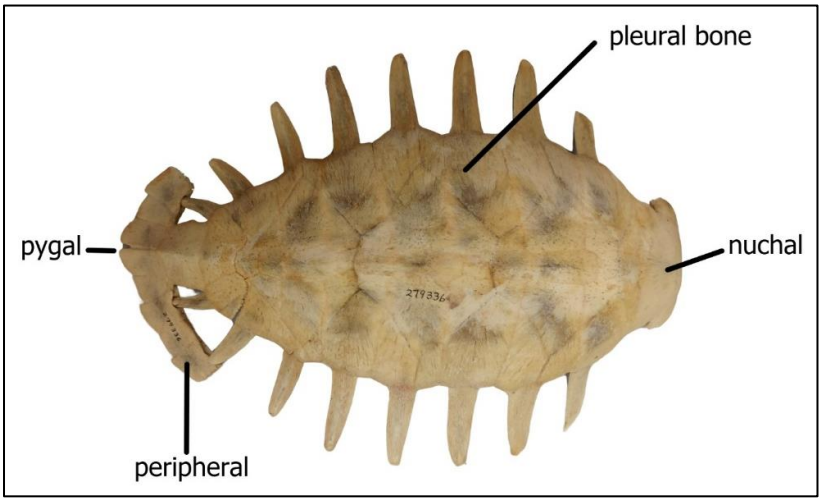

Figure 1-4. *Eretomechlys imbricata* carapace with preserved scute pattern. Smithsonian specimen 279336. Photo by author.

[36] Koolstra et al. 2019.

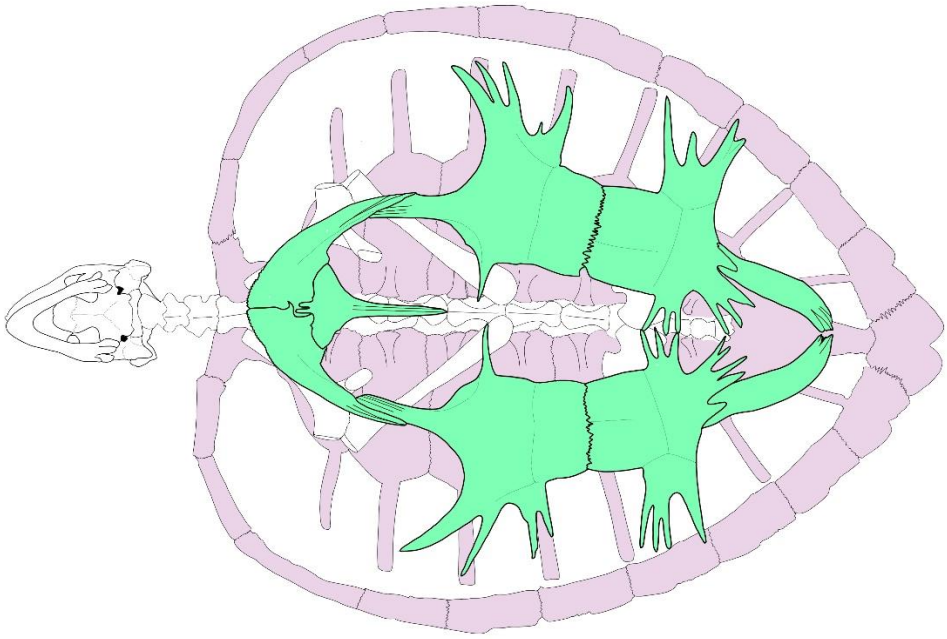

Figure 1-5. Generalized plastron of a green sea turtle. Plastron is shaded in green, carapace bones (peripheral and pleural bones) is shaded in pink. Drawing by author.

1.2.2.2. Plastron

The plastron is composed of four pairs of bones (epiplastron, hypoplastron (x2), and xiphiplastron) and one unpaired bone (entoplastron), and does not cover the centerline of the body in sea turtles (figure 1-5 above and figure 7-2 in Appendix A). The hypoplastron has a characteristic "sunburst" shape to its edges, making them appear jagged and in highly damaged or eroded specimens may be misidentified as breakages. The entoplastron is the third bone posteriorly in the plastron group, and is highly diagnostic among cheloniids. In sea turtles, this bone is dagger-shaped, rather than disk or tear-drop shaped compared to other Testudines. In green turtles, the entoplastron has

an anterior process that projects above the cranial-most edge of the bone, which is very broad compared to other sea turtle species. The shaft is also elongated and narrows abruptly to a sharp point, and its edges are gently concave. For hawksbill turtles, the shaft of the entoplastron again narrows abruptly. However, there is no projection of the anterior process, and the cranial edge is much narrower. In Kemp's ridley turtles, the shaft narrows more gradually, and in general, the entire bone gives the appearance of a dagger. The cranial edge of the entoplastron has a convex curve that is mostly uninterrupted. For loggerhead turtles, the entoplastron is cruciform in shape with the cranial edge being triangular rather than a smooth curve, and the shaft edges are more irregular than those of the other three species discussed. Like Kemp's ridley turtles, loggerheads have a gradual narrowing of the shaft.

1.2.2.3. Skull

Skulls are infrequent in coastal assemblages as they consist of less dense bones, which are more susceptible to erosion caused by the periodic wetting and drying of intertidal zones. If this element is preserved, however, there are several additional diagnostic features for cheloniids other than the scales or beaks. As mentioned above, green turtles have a rounded skull with a short snout, and the upper jaw is a smooth "U" shape. It also has a characteristic ridge on the palate of the lower jaw. The hawksbill skull is long and narrow, being about twice as long as it is wide, tapering to a point in a "V" shape. Loggerhead turtles also have a V-shaped jaw, but the skull is much broader posteriorly, making the skull appear "squat," and the snout tapers very quickly after the

orbits. In Kemp's ridley, the skull is much more oval with the jaws tapering in a much wider "V." Compared to other species, the orbits of the Kemp's ridley are very small.

1.2.2.4. Humerus

Compared to other Testudines, the humerus of cheloniid turtles has an extremely large medial process and an offset head. In addition, the deltoid crest is located just distal to the head for the attachment of large muscles used in swimming. The humeral head has an overall "flattened" appearance compared to other fauna. This is especially true of the leatherback sea turtle, which exhibits extreme flattening of this element. The humerus is also hugely important to archaeological analysis as it 1) is commonly preserved since it is a very dense bone, and 2) often exhibits butchery marks from its use in soup as well as the way the fin is generally disarticulated from the body. Furthermore, the diameter of the humerus has a linear relationship with carapace length. Due to this relationship, it is possible to back-calculate the straight carapace length (SCL) if only the humerus diaphysis diameter is known.[37] The calculation of SCL can help identify patterns of prey selection. SCL can also be related to maturity, and as sea turtles inhabit varying environments at different life stages, it can be used to infer information about human turtle-hunting strategies.

1.2.2.5. Femur

The femur is a good indicator of maturity in cheloniids as the trochanters become

[37] The following equation can be used to back-calculate SCL from the diameter of the humerus diaphysis, where Y=SCL in cm and X=humerus diameter in mm: Y=0.643 + 2.326X, from Zug et al. 2002, 119.

much more pronounced as turtles get older. This allometry distinguishes an immature turtle from a mature individual. The bone commonly has an hourglass shape with an offset head. In assemblages with a dearth of humeri, the femur can also assist in identifying patterns of prey selection and hunting strategies.

1.2.2.6. Additional Opportunities for Analysis

Humans have commonly modified scutes from sea turtles and fashioned them into material culture such as combs, inlays, and jewelry, which have survived in the archaeological record from sites across a myriad of periods. Hawksbill scutes have been the most heavily exploited out of the seven surviving sea turtle species due to their highly distinctive patterning and thickness. Recent research by E. Espinoza, B. Baker, and C. Berry has demonstrated that infrared spectroscopy can successfully distinguish between the keratin of sea turtle species.[38] This type of analysis would be useful in investigating commodity chains.

1.3. Methodology

The faunal material analyzed in this study come from two sites: Port Royal, Jamaica and the GCL075 Turtle Bone Site (CITB), Grand Cayman. Archaeologists collected the assemblages from these sites during excavations conducted between 1980 and the present. Recovery strategies included sight sampling and screening of sediment or dredged material. My primary interests concerned the Cheloniidae specimens, however

[38] Espinosa et al. 2007.

the presence or absence of other taxa in the assemblages was important for contextualizing sea turtle consumption at these sites.

To remain consistent and collect the most complete information, I used a standardized methodology to collect data across both assemblages for all specimens. The process began with sorting all of the bones first by taxon, and secondly by element. This initial sorting was done by feature or lot to preserve locality data and allow for distribution analysis. I compared the specimens to the Texas A&M Zooarchaeological Research Collection and the *CITES Identification Guide for Turtles & Tortoises*. To aid in the identification of the Cheloniidae specimens, I traveled to the Smithsonian Institution National Museum of Natural History (NMNH) to examine their comparative samples. I took photographs of over 100 individuals of three species to generate a digital reference collection. This digital reference included the dead weight of many of the NMNH's individuals as well as straight and curved carapace length wherever that data was available.

No cleaning was necessary as the material had previously undergone cleaning and conservation by the original excavators. As I examined the specimens, I grouped any clearly apparent joins and counted them as a single specimen. This strategy was particularly necessary with the CITB site, as it had experienced modern bulldozer disturbance, and as a result, many specimens exhibited fresh breaks, which were obvious and broken fragments were easily identifiable as a unit.

After this initial sorting, if the excavators had not already assigned the specimens an identification number, I created a catalog number for each specimen. Once a specimen

was identified to element type and part, it was photographed with a scale. I then recorded any surface modifications such as erosion, butchery marks, plant turbation, staining, and burning. Breaks in the bone were documented according to fracture type: stepped, spiral, or compression and distinction for cut bone was made between knife cuts (cuts with a "V" shaped profile), saw marks (identified by striations left from the saw teeth), and chop marks (identified often by a smooth entry and fractured exit point). Degree of element completeness, side, and age, where possible, was also noted. I also recorded pathological data wherever it was present.

Recording morphometric data for all specimens, I adhered to the standards illustrated in Driesch's *Guide to the Measurement of Animal Bones from Archaeological Sites*.[39] This data was collected using digital calipers. All of the information was entered into a Microsoft Access Database.

1.3.1. Age and Size

For determining age, I was limited to categorizing turtles as immature or mature based on the femur trochanters. Other identification is difficult because mature males (particularly among green sea turtles) are estimated to be much older than females of equivalent size.[40] I noted age for non-turtle specimens as immature, mature, or senile. These estimates are derived from epiphyseal fusion and specimen size for animals of determinant growth as no teeth or mandible fragments appear in the assemblages, and

[39] Driesch 1976.
[40] Chaloupka et al. 2004.

from allometric calculations for animals of indeterminate growth (primarily fish vertebra).[41]

Skeletochronological data can be instrumental in studies involving Testudines, as with all reptiles and amphibians, growth is periodic and can be observed in the bones. Growth "rings" are laid down annually, or seasonally, and are durable and observable over time.[42] Studies with sea turtles have demonstrated a linear relationship between the diameter of the humerus shaft and SCL. The following equation calculates an estimated SCL, where Y=SCL in cm and X=humerus diameter in mm:[43]

$$Y=0.643 + 2.326X$$

Since no complete carapaces existed in either assemblage, directly measuring carapace length was not possible. The above formula allowed the sizes of the turtles harvested or processed at these sites to be extrapolated from humeri specimens that had a preserved diaphysis. As mentioned previously, the calculation of an estimated SCL can help answer several anthropological questions concerning the exploitation of these animals.

1.3.2. Quantification

The development of a methodology for measuring the abundance of taxa has caused much debate within the zooarchaeological community. One of the most common methods is the use of the number of identified specimens per taxon (NISP). However, the majority of the Cheloniidae assemblages from the sites in this study exhibit either cleaver

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[41] "animals of determinate growth" is a standard zooarchaeological term that refers to animals which reach an adult size and then stop growing, "animals of indeterminate growth" refers to animals that do not stop growing upon reaching maturity. Reitz and Wing 2008, 70.
[42] Halliday and Verrell 1988, 254.
[43] Zug et al. 2002, 119.

or cut marks, or have many secondary breakages, the use of NISP to compare relative abundances is not very useful as butchery patterns can easily skew this metric.[44]

Instead of NISP to compare abundances, I calculated the minimum number of individuals (MNI) using Bunn's method.[45] In this method, the most common element is identified for each taxon, and then the elements are sided. I then use the number of elements of the most common side as the value for MNI. As the assemblages studied were relatively small, a specimen-by-specimen comparison was not difficult. However, the taphonomy of the site caused the differential preservation of the remains; in light of this, the MNI calculated in this report is conservative. When comparing the left and right sides of the same element, it was apparent that some elements from the less common side were not counterparts to those used to calculate MNI.

1.4. Anthropology Literature Review

Highlighted above are just some of the ways faunal remains can aid the study of foodways, and how they can be a powerful tool for answering anthropological questions. The types of food people eat, and the way they prepare them are inherently an extension of social identity. These ecofacts left behind after consumption represent a wealth of information, reflecting elements such as environmental pressures and social hierarchy.[46] Douglas Campana puts it quite concisely: "At a very basic level, food and culinary traditions are some of the most important ways in which ethnicity is expressed."[47] Tanya

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[44] Grayson 1979, 201.
[45] Bunn 1982.
[46] Pavao-Zuckerman and DiPaolo Loren 2012, 199-200.
[47] Campana 2010, 129.

Peres also studied the inherently social nature of food consumption, illustrating how foodways can help us understand belief systems. Defining foodways as all the activities, rules, and meanings that involve food production, collection, processing, serving and consumption, Peres used her work in the Southeastern United States to demonstrate how foodways can transform eating to be either sacred or profane, expanding on the early work of Emile Durkheim.[48]

While food is a shared experience and can exemplify cultural norms, foodways are also an excellent arena in which to study agency and habitus. Often manifested as personal taste, we can study agency through avenues such as food selection in the demographics of a faunal assemblage or food preparation as expressed in surface modification such as burn or cut marks.[49] Heather Hatch has done extensive work studying identity and subculture in the maritime community.[50] Hatch employs intersectionality in her work, highlighting that members of the maritime community experience identities that overlap and interact. She also points out that as subsets of larger cultural systems, the maritime community is a well-suited context for comparative study.[51]

When examining Testudines in European foodways, in particular, it is helpful to understand the general position of exotic animals as a whole within these cultural systems. Exotic animals often carry heavy symbolic connotations and have been used or consumed as a way to demonstrate dominance or substantiate claims of discovery.[52] Furthermore,

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[48] Peres 2017, 421-2.
[49] Pavao-Zuckerman and DiPaolo Loren 2012, 200.
[50] Hatch 2010.
[51] Hatch 2013, 43.
[52] Hagseth 2018, 137.

these animals were situated squarely within extractivist economies. Richard Wilk pointed out that in this context, the geographic location of these luxuries was associated with prestige and luxury.[53] Culturally this can affect food selection and processing patterns, in the case of turtle some manifestations include overexploitation of individuals from Caribbean ranges, and the appearance of cookbooks with instructions on how to prepare turtle the "West Indies Way."[54] The common language of consumerism can create a cultural uniformity in previously disparate and disjointed groups, such as colonies and their parent empires. In this environment, Historian Timothy Breen states that the use or abstinence from particular goods or commodities becomes an inherent and unavoidable statement, often political, that every household and individual is forced to make. Furthermore, this choice is a very visible one to other members of their community.[55] This dissertation examines these themes through the lens of the consumption and trade of turtle.

This study will compare faunal and artifact assemblages to address the above issues as related to the Testudines commodity. Were the individuals depositing remains able to participate in the "ideal" material culture for their group, or were they making do? Were particular expressions of taste unique to the shipboard environment? How far does agency affect what appears in these assemblages from the maritime community? Charles Cheek applied zooarchaeology to answer similar questions in his work in Massachusetts Bay. Cheek looked into the use of wild foods in New England diet, foods, which like

[53] Wilk 2004, 294.
[54] Glasse 1774, 331.
[55] Breen 1988, 76-7.

turtle, could simultaneously be high and low class in the 17th to 18th centuries. Focusing on context to distinguish patterns of use, Cheek studied species range, MNI, meat weight (MTWGT), biomass (BIO), and number of species (SPNO). This enabled him to distinguish economizing strategies versus elite consumption and the influence of English "charter" cultures.[56] Using data such as these, this dissertation will expand our understanding of foodways in the maritime community from the 16th to 19th centuries. My study of human-Testudines interaction, through archaeology and historical analysis, presents a case study that demonstrates the practical application for order specific inquiry. Mariners experience the non-human elements of their world in a multifaceted way, going beyond the surface reality of "what is eaten." By identifying how mariners experienced sea turtles and their byproducts, I am able to address anthropological questions concerning identity, habitus, belief systems, and their intersectionality.

[56] Cheek 1998, 155-9.

2. FEEDING EXPANSION AND CONQUEST WITH TURTLE

The market for Testudines in Europe was not a sudden development with West Indies contact. Due to the globally distributed ranges of sea turtles, their shells were already a traded commodity heavily trafficked in the 15th and 16th centuries. It was during this time that Portuguese mariners established trade with ports in Africa and India to acquire gold, slaves, tortoiseshell, ebony, and other commodities to sell in Europe.[57] A variety of objects for the upper echelons of society were made from the scutes of sea turtles, ranging from decorative boxes to combs to gameboards (see figure 2-1). Even the cradle made for King Henry IV of France in 1553, was created out of an entire carapace.[58] It was the West Indies sea turtle, however, which drastically impacted European culture surrounding turtle.

Some scholars have asserted that the sea turtle's exploitation as a shipboard provision for Europeans commenced with New World Explorers like Columbus in the late 15th or early 16th centuries.[59] Yet, evidence suggests that the use of turtle meat to fuel long-distance maritime ventures began earlier. Accounts of the Cape Verde islands are a case in point (figure 2-2). Claimed by Portugal in 1466, the islands became a hub for human trafficking from West Africa to Europe and also served as a stepping stone for European overseas expansion around the world. Cape Verde became a heterogeneous

[57] Tripati and Godfrey 2007, 334.
[58] Braine 1894. The cradle is still on display at the Château de Pau.
[59] Smith 1985, 330.

Figure 2-1. 15th- and 16th-century examples of tortoiseshell artifacts. Top left: Virgin and child in turtle shell frame, 16th century, Victoria and Albert Museum, Accession No. M.179-1960. Credit: © Victoria and Albert Museum, London. **Top right: Italian chess/backgammon-board, 15th century,** The British Museum, Accession Number 2004,1216.1.a-ii. Reprinted with permission ©Trustees of the British Museum. **Bottom left: French manuscript case, first half 15th century,** Metropolitan Museum of Arts, Accession Number 54.18. Credit: The Cloisters Collection, 1954; **Bottom right: turtle shell box, 16th century,** Victoria and Albert Museum, Accession No. M.10A-1945. Reprinted with permission © Victoria and Albert Museum, London. **Not to Scale.**

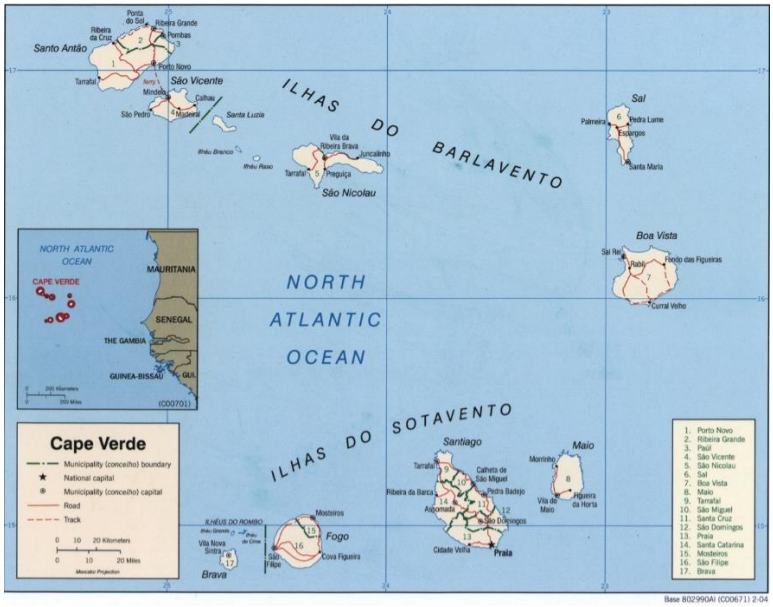

Figure 2-2. Cape Verde. Credit Library of Congress, Geography and Map Division, G9160 2004. U5. Retrieved from https://lccn.loc.gov/2004628292 on September 30, 2019. Reprinted from United States Central Intelligence Agency 2004.

mixture of the cultures of mariners who stopped there.[60] Alvise Cadamosto, one of the navigators credited with discovering parts of the Cape Verde archipelago, referenced the consumption of sea turtle at Ribeira Grande bay in 1456.[61] The following is from his *Paesi novamente retrovati*, first published in 1507:

> I should also explain that we found here large numbers of turtles (what we call gajandre), some of which we caught. Their shells are larger than good-sized bucklers. These the sailors killed and added to our victuals, for they said that on other occasions in the Golfo de Argin, where they are also found but not of such size, they had eaten them. I may also say that, to test everything, I ate some, and found them good, not unlike the white flesh of veal, so good was their smell and taste. We accordingly salted many of them, because they made good supplies for the voyage.[62]

[60] Hall 2015, 1.
[61] Loureiro and Tarrão 2008, 47.
[62] Crone 1937, 65.

Flemmish explorer and navigator Eustache de la Fosse mentioned capturing turtle in 1480 at Santiago as does Valentim Fernandes, a German who collected Portuguese voyaging accounts at the end of the 15th century.[63] These accounts show that not only were sailors catching turtle at Ribeira Grande Bay, and elsewhere in the Cape Verde Islands, but also that at this time it was usual for European sailors to supplement their diets with sea turtle wherever available, and that it was the crew themselves who did the hunting. Heavy emphasis is put on the use of sea turtle as a fresh meat addition to seafaring diets in recent literature.[64] Yet, Cadamosto demonstrates that turtle was treated similarly to pork or beef and likewise salted and stored for longer voyages, and that provisioning ships with salted turtle occurred much earlier than often referenced by modern scholarship.

In their 2008 article historians Loureiro and Tarrão examined sea turtle exploitation at Cape Verde. In addition to collating as many primary sources as they could find, the two wanted to better understand the relationship between modern humans and turtles, seeking to set the current ecological paradigm within a historical context. The transitory maritime communities that frequented the Cape Verde archipelago, although a diverse mixture of cultures, exhibited some cultural continuity in the way they viewed turtles. Turtles were predominantly either a food source that kept body and soul together, or they were medicinal.[65] For these mariners, turtle and its biproducts did not have prestigious connotations; sailors were more interested in their meat or blood rather than

[63] Foulché-Delbosc 1897, 18; Loureiro and Tarrão 2008, 38.
[64] Smith 2001, 54-66.
[65] Loureiro and Tarrão 2008, 38.

the decorative use for the turtle's scutes. The turtle's utility for provisions, rather than export for the commodity market, led to intense overhunting, and the nesting population of green sea turtles on these islands has gone extinct.

2.1. Early Accounts and First Encounters

The earliest account of European encounters with the West Indies sea turtle comes from transcriptions of Christopher Columbus's journals. While the original text is no longer extant, individuals such as his son, Ferdinand, and historian Bartolomé las Casa, copied and then abridged the sections that exist today. Through these works, we know that on 3 December 1492, members of Columbus's crew killed a sea turtle, and that some of the ship's boys used the broken shell, or scutes, as exchange items with the indigenous population of Puerto de Baracoa. The use of shell as a commodity in this instance seems to be an afterthought: "The sailors had killed a turtle, and the shell was in the boat in pieces. The sailor-boys gave [the natives] some in exchange for a bundle of darts." [66] Again on 9 January 1493, the crew hunted sea turtle by catching nesting females at Monte Cristi.[67]

Perhaps one of the most famous accounts of early encounters between Europeans and West Indies turtle is that of Columbus's second voyage in 1494. In early May, his ships arrived at the islands Columbus called *Jardin de la Reina*, along the southern shore of Cuba. It was here that the crew saw local fishers using a remora, or suckerfish (*Echeneis*

[66] Markham 1893, 96.
[67] Markham 1893, 154

remora), to catch sea turtle (figure 2-3).[68] This type of remora-aided fishing continued in the West Indies and South America up through the 1930s and was widely practiced around the globe (figure 2-4). Prior to 1494, Europeans were already familiar with this fish as the "ship-slayer" from Greek and Roman legend. An early woodcut of remoras appeared in the 1491 *Hortus Sanitatis* compiled by Jacob Meydenbach (figure 2-5).[69] Inspired by the Columbus account, Conrad Gesner included his rendition of the fishing scene in his 1563 *Historiae Animalium* (figure 2-6).[70]

The fishers seen by Columbus likely used techniques similar to those observed in 20th-century ethnographic study. In 1932 C. Ralph de Sola observed the human-remora symbiotic relationship at Matanzas, Cuba.[71] The fishers attached remoras to the planking of small rowboats, inducing them to adhere with the suction of their discs. A thin bark lanyard was also attached to the fish to facilitate retrieval once the remora made a catch. This lanyard was attached to a rope that lay coiled in the boat, waiting for deployment. Once a turtle was spotted, the remora was removed from the planking and thrown towards the turtle. The remora would latch onto the turtle, and the fishers then could hoist both animals into the boat.

During his voyages, Columbus noted turtle nesting locations on Jamaica, likening green turtle eggs to hen eggs.[72] Here, as with his first mention of sea turtle, Columbus's

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[68] See figure 2-3 for a 1788 illustration of a Remora; Eastman 1916, 33.
[69] Grudger 1919.
[70] This image was also reproduced in Gesner's *Das Fischbuoch*, 1563.
[71] Haddon (1912, 163-6) also produced an in-depth report of remora fish hunting in the Torres Straits.
[72] Cohen 1969, 173-4.

Figure 2-3. A remora. By artist Jan Brandes, July 14, 1788. Courtesy of the Rijksmuseum, item number NG-1985-7-2-113. Reprinted with permission from Brandes 1788.

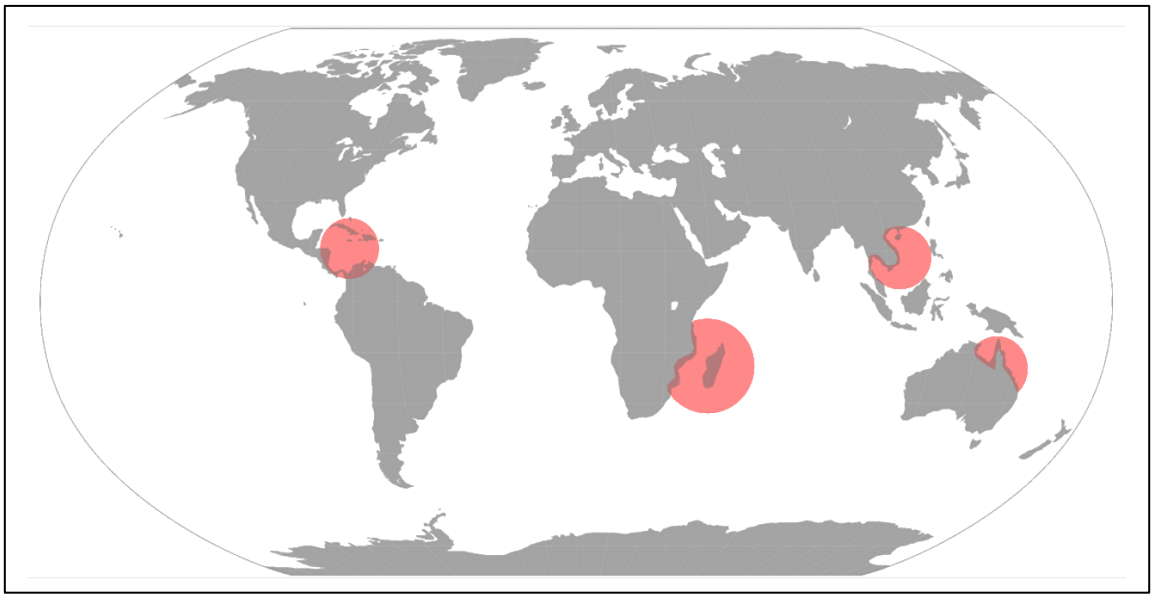

Figure 2-4. Localities that use remora in fishing. After De Sola 1932, figure 1.

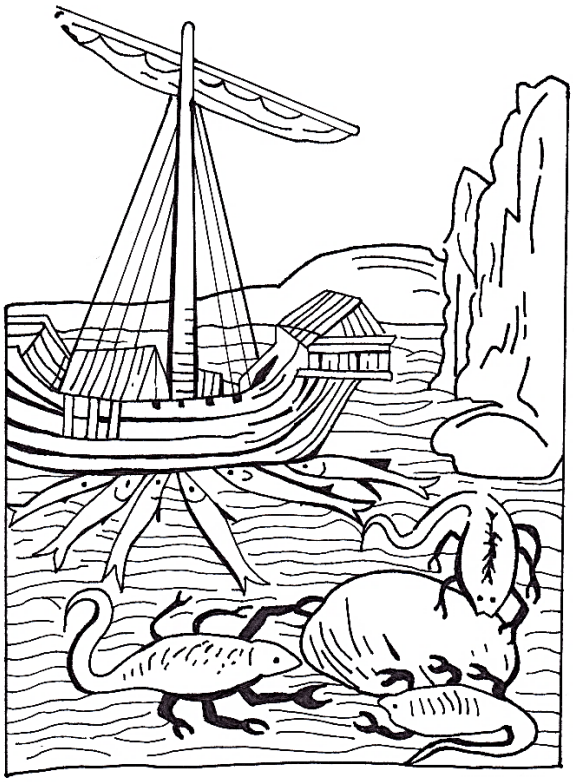

Figure 2-5. Remora "ship-slayers." After J. Meydenbach 1491. *Hortus Sanitatis*, page 345.

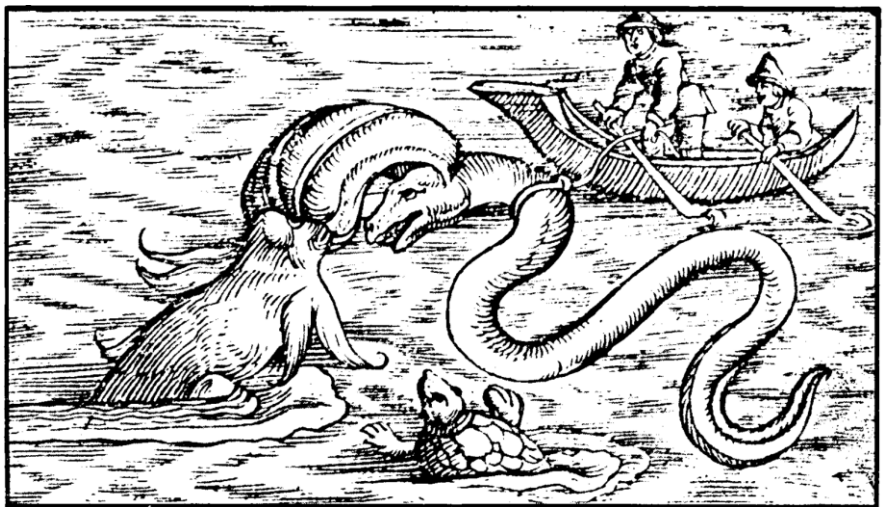

Figure 2-6. Fishing with remora. From Conrad Gesner's *Das Fischbuoch, Historia Animalium,* 1563. Reprinted with permission from Smithsonian Libraries.

focus is on the use of these animals in shipboard diet. Other New World explorers also used West Indies sea turtles to provision their crews. In 1499, Amerigo Vespucci reported that fishers near Trinidad supplied his ship with many turtles and other fish.[73] Fourteen years later in 1513, the crew of Juan Ponce de León's ship caught 160 turtles which were nesting on the beaches of the Cayman Islands.[74]

These early European explorers of the Americas mentioned sea turtles fairly infrequently despite the large nesting populations the Caribbean likely had at that time. The reason for this is likely two-fold. First, Columbus arrived in the New World in early October, just missing the Caribbean green turtle nesting season, that occurs from April through September.[75] While adult and juvenile green turtles are still generally found in nearshore waters during the rest of the year, they are harder to catch than nesting females. Thus, we see early explorers relying on indigenous populations to provide the ships with turtle meat and eggs or upon the fortuitous catch of a turtle by members of the crew.[76]

The second reason why sea turtles are rarely mentioned in the accounts of Columbus and others is that, as proven by the Cape Verde examples, European mariners were already regularly consuming turtle, making it an unremarkable event to report. Sea turtles are circumglobal in their migration patterns, and so their sighting would not have been useful in substantiating claims of discovery, for which explorers used other exotic

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[73] Ober 1907, 144.
[74] Peck 1992, 150; Scisco 1913, 731.
[75] Smith 1847, 2; Laloë et al. 2016, 94.
[76] Occasionally, these mariners were met with a bountiful supply, as happened with Ponce de León when his ship landed at the Cayman Islands during the peak of nesting season, as previously mentioned.

animals.[77]

2.2. Sending Turtle to Europe in the 16th Century

While mariners began using the West Indies sea turtle as a convenient shipboard provision since the time of Columbus, the first recorded export of "sea-tortoise" from the Caribbean to Europe was late in the 16th century. Ulisse Aldrovandi was a Bolognese polymath, encyclopedist, and natural philosopher who lived from 1522 to 1605. Throughout his life he acquired many animal specimens, creating a collection that is now considered the first natural history museum in the modern definition of the term. Two of the specimens in his collection were West Indies *Chelonia mydas* in the form of two large juvenile carapaces.[78] These are the earliest known West Indies specimens to make it to Europe.

Sea turtles from non-West Indian locales had already appeared in collections and curiosity cabinets decades earlier. Collectors such as Adriaen Coenen, a Dutch fisherman, charged small fees to view the animals. Coenen's sea turtle had been found crawling on a Dutch beach in June of 1565 and was kept alive for a while in a tub of water.[79] It is here that we can begin to see the dichotomy in the European mind between the West Indies sea turtle and those already known in European and eastern seas, even though they are the same set of species. In the case of Ulissee Aldrovandi's *Chelonia mydas*, their geographic origin was intrinsic to their value as specimens. The importance of the location of capture

[77] Hagseth 2018.
[78] Bauer et al. 2013, 305-17.
[79] Egmond 2018, 137.

would continue to build throughout the 16th and 17th centuries, reaching its zenith by the 18th century, by which time it carried significant cultural capital.

Fishery exploitation by Europeans in the West Indies was minimal for the first century after Columbus, until French and British mariners entered the Caribbean in full force.[80] Records suggest that consumption of West Indies sea turtles in the 16th and early 17th centuries was predominantly relegated to mariners seeking to add fresh meat to their diet. Export of these animals across the Atlantic and into European consumption chains did not occur until the second half of the 17th century. English state papers refer to the import of 2,000 pounds (907 kg) of West Indies turtle in September 1661.[81] By the 1670s, Copenhagen import records show that the Danish were exporting sea turtle (listed as "carrett") from their West Indies holdings.[82]

2.3. Turtle in 17th to Early 18th Century Maritime Culture and History

Once the plentiful sea turtle of the West Indies was recognized as a good source of ship provisions, control of the turtle fisheries became a struggle between the French, Spanish, Dutch, and English. Slave traders' account books of Cartagena and Panama from 1626 to 1634 show turtle meat listed among the provisions purchased by the Spanish for slave consumption. Turtle meat seems to be the predominant food for slaves passing through Portobello as well. Mariners also loaded turtles onto ships for outbound voyages from these ports along with amaranth and fish. Newson and Minchin surmise that the

[80] Baisre 2010, 128-9.
[81] Sainsbury 1880, 56.
[82] Estergaard 1917, 43.

purchase of amaranth, a grain native to Central and South America, indicates that these meats were destined for stew, an early inception point for what would become the famous turtle soup of epicures' tables.[83]

During the 17th century, both tortoise and green sea turtle became an important food source for the VOC, or Dutch East India Company. The VOC established a settlement at the Cape in South Africa in 1652 to facilitate the provisioning of ships sailing between Europe and Asia. Archaeologist David Halkett found carapace and plastron fragments from the tortoise *Chersina angulata* at the 17th-century M90, F2, DP, and ESB terrestrial sites in South Africa. While *Chersina angulata* is indigenous to South Africa, its presence in kitchen dumpsites, as well as its abundance in the archaeological record, show the importance of Testudines in the diet of Dutch mariners and colonists.[84] While these finds are not directly associated with West Indies turtles, they do serve to re-emphasize how essential turtle meat was becoming in facilitating European overseas expansion and conquest.

The increasing reliance on salted turtle as a staple for English mariners's diet began sometime before 1637 when we have records of the production of "salt for turtle."[85] In fact, turtle was so frequently salted and barreled for provisioning ships that Thomas Gage referred to it as "beef of the marine" in 1648.[86] English mariners made every effort to take advantage of the turtle nesting season to revictual prior to returning home.[87] Stopping at

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[83] Newson and Minchin 2007, 525-6.
[84] Heinrich and Schrire 2014, 70-1.
[85] Sainsbury 1860, 255.
[86] Menjivar 2012, 146-55.
[87] Sainsbury 1880, 23.

the Cayman Islands for turtle was preferred, however, as a last resort ships sometimes purchased turtle from French buccaneers:

> John Francis of the *Diamond*, to the Navy Commissioners. According to orders from Col. D'Oyley, Governor of Jamaica, set sail thence on April 24th [1662] to the Caiman Isles for turtle to victual home, but coming too soon for it, stayed till May 29th, and then set sail for England, being forced to take turtle of a Frenchman at last.[88]

Colonial traveler John Josselyn provides an excellent firsthand account of English sailors turtling in 17th century. West of Flores Island, on 6 July 1638, the voyagers experienced calm seas during their Atlantic transit and took the opportunity to launch a shallop (figure 2-7) from which they hunted turtle by grabbing their hind fins and hauling them into the boat. The turtles were kept alive until the next day when the crew butchered them.[89]

Along with describing the five species of sea turtle that he observed, Josselyn also commented on the useful qualities of turtle meat for sailors. Along with being a wholesome food, turtle meat and eggs, according to Josselyn, could completely cure consumption and the great pox.[90] The health-restoring qualities noted by Josselyn were likely learned from the mariners with whom he sailed, reflecting the influence of a longer cultural history of turtles and European sailors. Loureiro and Tarrão described this phenomenon: "The natural history of Cape Verde sea turtles is very much influenced by its anthropogenic mixture."[91] The accounts of Valentim Fernandes (1495-1518), Eustache

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[88] Sainsbury 1880, 100.
[89] See figure 2-6 for an example of a Shallop. Josselyn 1865, 33.
[90] Josselyn 1865, 34-5.
[91] Loureiro and Tarrão 2008, 44.

Figure 2-7. Example of a British Shallop, early 19th century. Courtesy of the Metropolitan Museum of Art, Accession No. 13.69.4, Retrieved from https://www.metmuseum.org/art/collection/search/219454 on October 6, 2019. Reprinted from Rogers Fund 1913.

de la Fosse (1480), and Cadamosto (1456) all mention the abilities of sea turtle oil or blood to cure leprosy.[92] Maltese medical folklore offers tortoise blood as an effective treatment for both jaundice and epilepsy. Males who had jaundice were to consume the blood of a female turtle, while women were to use that of a male. To cure epilepsy, the sufferer needed to drink the blood immediately following a fit.[93]

The transmission of these ideas across a maritime network, and their synthesis into a generalized European maritime culture, is a prime example of the Actor-Network Theory (ANT) at play. ANT has been a useful tool in anthropology for understanding humans and their social networks, for it acknowledges that those networks include nonhuman elements.[94] Here communication networks and the nonhuman (in this case, sea turtles) combine physical realities such as meat, eggs, and blood, with social constructs like the conceptualization of illness. Thus, sea turtles became culturally associated with heartiness and healing, which we see manifest in the historical record both through firsthand accounts and governmental policies.

Mariners traveling to and from the West Indies maintained that sea turtle, particularly the green turtle, was by far the best indigenous food for supplementing sailors' diets. In 1657, Richard Ligon stated that there was no food tastier or more nourishing.[95] Thomas Amy, in 1682 referenced the nourishing broth made from turtle meat and

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[92] Loureiro and Tarrão 2008, 38-47.
[93] Ventura 1990, 43.
[94] Rodríguez-Giralt et al. 2018, 257-258; Oppenheim 2007.
[95] Ligon 1657, 36.

commented on the delicious flavor of green turtle.[96] Amy also described the salting and barreling of turtle meat in the Caymans, meat destined for ships departing Jamaica:

> In April, May, and June the seamen or turtlers, at some convenient distance watch their opportunity, getting between them [the turtles] and the sea, turn them on their backs, from whence they are unable to rise, by which means the seamen or turtlers sometimes turn 40 or 50 in a night, some of 2, 3, 400 weight. If they are far distant from the Harbor or Market to which they design to bring them, they kill, cutting them to pieces, which salted they barrel. This is the way of killing at the Caymans.[97]

With the rapid growth of English Jamaica, after this island's colonization in 1655, and the definitive acquisition of the turtle fisheries off the Caymans in 1662, the exploitation of sea turtles steadily increased.[98] In June of 1665, six ships carrying 1,500 men were ordered to "victual themselves with tortoises" from Jamaica before attempting to take Curaçao.[99] By the 1680s, over 120 men were employed on nearly 40 sloops at the fishery, and with a catch of approximately 13,000 green turtles per year.[100]

The turtle became so valuable a shipboard food that the disruption of the turtling trade in 1684 was a cause for considerable concern. The English Admiralty tasked Captain David Mitchell with relieving Captain George Stanley, who was busy rescuing English turtling sloops from a French privateer. Colonel Hender Molesworth discusses the privateer problem with Willaim Blathwayt in a November 15, 1684 letter:

> The turtling trade has been thus lost for a while, Port Royal will suffer greatly. It is what masters of ships chiefly feed their men on in port, and I believe that nearly two thousand people, black and white, feed on it daily at the point, to say nothing

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[96] Amy 1682, 29-30.
[97] Amy 1682, 28-9.
[98] Smith 1981, 38.
[99] Sainsbury 1880, 305.
[100] Jackson 1997, S26-9.

> of what is sent inland. Altogether it cannot easily be imagined how prejudicial is this interruption of the turtle trade.[101]

The *Calendar of State Papers* reports on many other conflicts involving turtle in that same year and in 1685, most involving French privateers, although mention is made of the Spanish disturbing the Cayman turtle fishery.[102]

These records indicate the utility of turtle as a seafarer's food, but turtle also seems to have held a complex position within the cultural paradigm of the European maritime landscape. Another trend in primary accounts which parallels the descriptions of turtle meat heartiness, is the recurring theme of "weeping turtle". John Josselyn's 1638 account mentioned that sea turtles "sobbed and cried" when they were hauled aboard. He also described how the heart beat or twitched 10 hours after it was removed, implying that portions of the animal still had feeling, anthropomorphizing it.[103] Ligon echoed these same sentiments twenty years later, talking about turtles that sighed and cried large tears when butchered.[104] Sea turtle meat was said to quiver and twitch when put in the oven, and Thomas Amy personified sea turtles by saying they "mourn out their funerals."[105] Nehemiah Grew mentioned the sighs and tears of turtles in his 1681 *Musaeum Regalis Societatis* written for the Royal Society.[106] Other late 17th-century writers remarked on sea turtle's "near approximation to reason" and vitality that almost humanize the

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[101] Fortescue 1898, 721.
[102] Fortescue 1898, 724-5, 730; Fortescue 1899, 76.
[103] Josselyn 1865, 30.
[104] Ligon 1657, 36.
[105] Trapham 1679, 64; Amy 1682, 30.
[106] Grew 1681, 38-9.

animal.[107] Scientific studies of the behavior of sea turtles has registered their vocalizations (grunts) at between only 300 and 500 Hz. [108] While this may be the "sighing" some writers mention, it is a far cry from the weeping that is so prevalently relayed in these accounts. Why then were turtles reported to weep? Anna Suranyi points out in her work on early modern English travel writers, that these travelers emphasized food and foodways in their narratives to mark cultural differences and to reinforce political ideologies that were fundamental to identity.[109] Using this theoretical platform as a starting point, we can begin to understand the maritimity in regards to turtle consumption.[110] Heidi Oberholtzer Lee argues that this anthropomorphizing of sea turtles was a conduit for these 17th-century Anglo-Caribbean writers to explore themes of slavery, particularly since turtle was already strongly associated with human trafficking, being a cheap food source.[111] This being the case means that consumption of turtles in the maritime community, either consciously or unconsciously, socially mirrored on a small scale the power dynamics at play between the English and the groups they exploited in the Caribbean. Eating turtle reinforced elements of the English identity for groups that were physically separated from other Englishmen.

This apparent cultural complexity that built up around turtles and their behaviors eventually led to sea turtles becoming a politically charged commodity. Initially, however, turtles and tortoises remained predominantly the food of sailors, the local poor,

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[107] Trapham 1679, 63.
[108] Willis 2016, 1229-31.
[109] Suranyi 2006, 123-9.
[110] Hatch (2013, 11) defines Maritimity as: "Identity grounded in perceived (or imagined) shared traits deriving from a community's relationship with the maritime environment."
[111] Lee 2005, 310-25.

and slaves. Thomas Amy remarked that salted turtle could be purchased in 1682 for 18 to 25 shillings a barrel.[112] When compared to the price of a barrel of beef mentioned by John Josselyn in 1675, at five pounds, it is not surprising that it became such a staple in Caribbean and seafaring diets.[113] In English Jamaican society during the 17th century, the hierarchy of meats placed imported livestock and dried meat at its apex, followed by local cattle and swine, with turtle meat solidly inhabiting its lowest rung.[114] This hierarchy would be overturned by the second half of the 18th century, which would see the sea turtle rise to become the embodiment of European grand cuisine, and one of its most controversial manifestations.

[112] Amy 1682, 28-9.
[113] Josselyn 1865, 15.
[114] Hollet 2011, 18.

3. 16TH – 17TH-CENTURY TURTLE BUTCHERY PATTERNS

According to contemporary accounts of turtle butchery, the first step was to turn the turtle onto its back, sometimes leaving it overnight. Thomas Amy in 1682 noted that "before they kill [the turtles] they are laid on their backs, where hopeless of relief…for some hours they mourn out their funerals," and R. Ligon, earlier in 1657, also stated that "when you kill one of these fishes, the manner is, to lay him on his back on a table."[115] Next, a sharp knife was used to separate the calipee, or belly section, from the calipash, or back, down to the shoulders. Again, Ligon illuminates the technique:

> [The turtle] has a joynt or crevis, about an inch within the utmost edge of his shell, which goes around about his body, from his head to his tail, on his belly-side; into which joynt or crevis, you put your knife, beginning at the head, and so rip up that side, and then do as much to the other; then lifting up the belly, which we call his calipee, we lay open all his bowels, and taking them out, come next to his heart….[116]

This method of butchering, done while the turtle is on its back, has the practical advantage of providing the most access to the viscera.[117] In sea turtles, the pectoral girdle is comprised of the acromion process, coracoid, and scapula (figure 3-1). For this method to be followed, the knife would have to pass above the scapula as it extends towards the carapace, which would be a nearly impossible angle for the butcher to achieve. If Ligon's method is not wholly accurate, how were 16th- and 17th-century Europeans butchering turtle? Furthermore, why is it important to tease out and understand these types of details? To answer both of these questions, this chapter will examine in depth the archaeological

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[115] Amy 1682, 30; Ligon 1657, 36.
[116] Ligon 1657, 36.
[117] Wyneken 2001, 34.

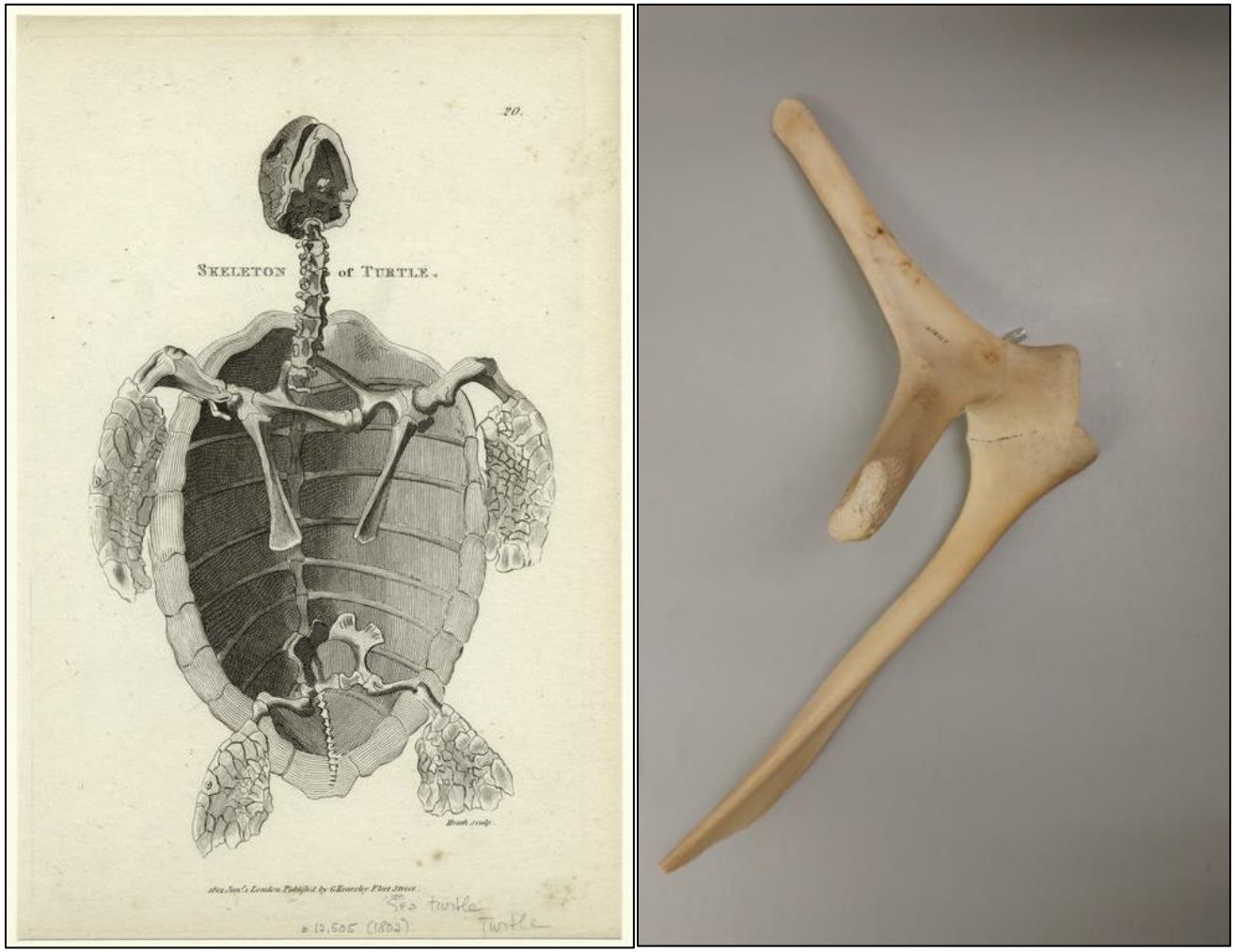

Figure 3-1. Pectoral girdle, sea turtle. left: *Skeleton of a Turtle* by Heath, 1802. Courtesy of the New York Public Library. **right:** *Chelonia mydas* pectoral girdle photo by author, 2017. Reprinted from The Miriam and Ira D. Wallach Division of Art. 1856-8b.

site of Port Royal, Jamaica and the turtle remains found therein.

3.1. Port Royal Jamaica

The town of Port Royal was, in the second half of the 17th century, one of the most successful and heavily trafficked English ports in the New World. This critical economic hub boasted over 4,000 permanent free inhabitants and approximately 2,500 slaves at the time of its demise by an earthquake in June of 1692.[118] Primarily dealing in slaves, sugar, dyewood, Spanish indigo, rum, cotton, hides, tallow, and cocoa, Port Royal was the major center of exchange in the Caribbean for both Europe and the New England colonies.[119] In addition to these goods listed above, Port Royal was also both an important source and consumer of marine turtle meat.

By the mid-17th century, turtle meat had become a staple in the English colonial Caribbean and seafarer's diet. It was preserved and consumed in a variety of ways. Thomas Gage, who called himself the "English-American", referred to turtle meat corned with salt and hung up, and other contemporaries mention roasting, baking, stewing, or cutting the flesh into steaks.[120] The many specimens of butchered turtle bone recovered from the catastrophic site of Port Royal help us understand 17th-century turtle butchery patterns and foodways.

3.1.1. Site Introduction

The city itself was constructed over the tip of a large sandspit that was

[118] Zahedieh 1986, 570; Mulcahy 2008, 397.
[119] Jobling 1987, 2.
[120] Armstrong 2018, 451; Gage 1985, 26-8; Pitman 1689, 22; Sloane 1707, lvi, lxxxviii.

approximately 65-180 feet (20-55 meters) deep, at which point the sand gave way to a limestone residual. Originally the town spanned 51 acres of this relatively flat sandspit protecting Kingston Harbour (Figure 3-2).[121] Within a decade of its establishment as an English port in 1660, the town became infamously known as the "Wickedest City on Earth," and it continued in economic prominence and notoriety until its destruction in 1692.[122] The five to seven-minute long earthquake caused the water-saturated sand to liquefy, suddenly pulling entire buildings into the instant quicksand.[123] All but 18 acres of the site became submerged, and a reported 4,400-5,000 individuals perished as a result of the initial catastrophe as well as in the months following due to related disease.[124]

The salvage of artifacts from the Port Royal site is not a recent endeavor. Immediately after the earthquake subsided, underwater salvage was attempted. Scientific interest in the site, however, did not begin until the 20th century, and the sunken city of Port Royal became the focus of several archaeological investigations since 1956. From 1956 to 1959, Edward Link and a team of investigators were able to produce a map of a small section of the city with the help of 17th-century real estate records, and later in the 1960s terrestrial excavations of small areas under Fort Carlisle were completed by Norman Scott.[125] In 1966-1967, construction plans necessitated rescue archaeology of a southwestern portion of the submerged site, and Robert Marx led the excavation of a large

[121] Mayes and Mayes 1972, 102; Hamilton 1984, 11.
[122] Hamilton 1984, 11.
[123] Clark 1995.
[124] Mayes and Mayes 1972, 100; Hamilton 1984, 12; Mulcahy 2008, 403.
[125] Hamilton and Woodward 1984, 42.

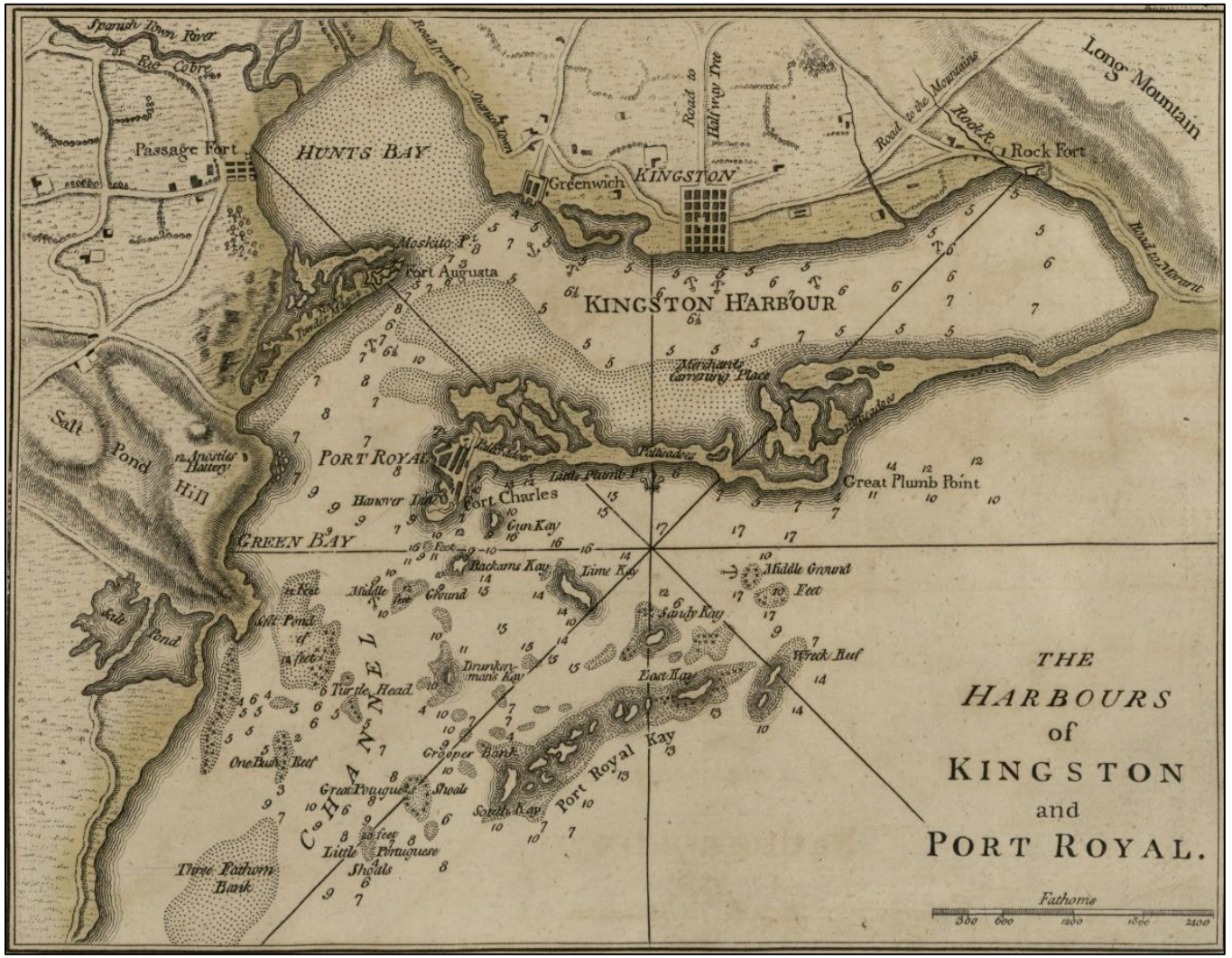

Figure 3-2. Map of Kingston Harbor 1775. Courtesy of the Library of Congress, item number G4960 1755 J4. Reprinted from Jeffreys and Sayer 1775.

portion of the sunken city in collaboration with the Institute of Jamaican Culture.[126] He briefly mentions the recovery of butchered animal bone in his book, *Pirate Port: The story of the Sunken City of Port Royal*.[127]

Ten years later the Government of Jamaica contacted the Institute of Nautical Archaeology (INA) to continue archaeological investigation at the site. From 1981 to 1990, INA and Texas A&M University (TAMU), in conjunction with the Jamaica National Heritage Trust carried out a cooperative effort to study the submerged portion of the city.[128] This archaeological excavation was directed by Dr. Donny Hamilton and focused primarily on submerged buildings located adjacent to what was, in 1692, the intersection of Queen Street and Lime Street (Fig. 3-3).[129] The Hamilton excavations revealed butchered turtle bones

3.1.2. Faunal Assemblage

It is often challenging to archaeologically study abstract components of culture, such as values and religions of the past. The cultural norms surrounding these beliefs can, however, leave tangible indirect evidence that can shed light on these core systems. The social nature of food consumption and preparation is preserved in not just artifacts, but ecofacts such as butchered or burned bone. The placement and type of cut marks, the division of meat, or the type of burning on any given specimen can contribute not only to our understanding of diet and daily life but also reveal greater social realities. The site of

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[126] Hamilton 2006, 17.
[127] Marx 1967, 64-150.
[128] Hamilton 2006, 19-20.
[129] Custer 2004, 28-9.

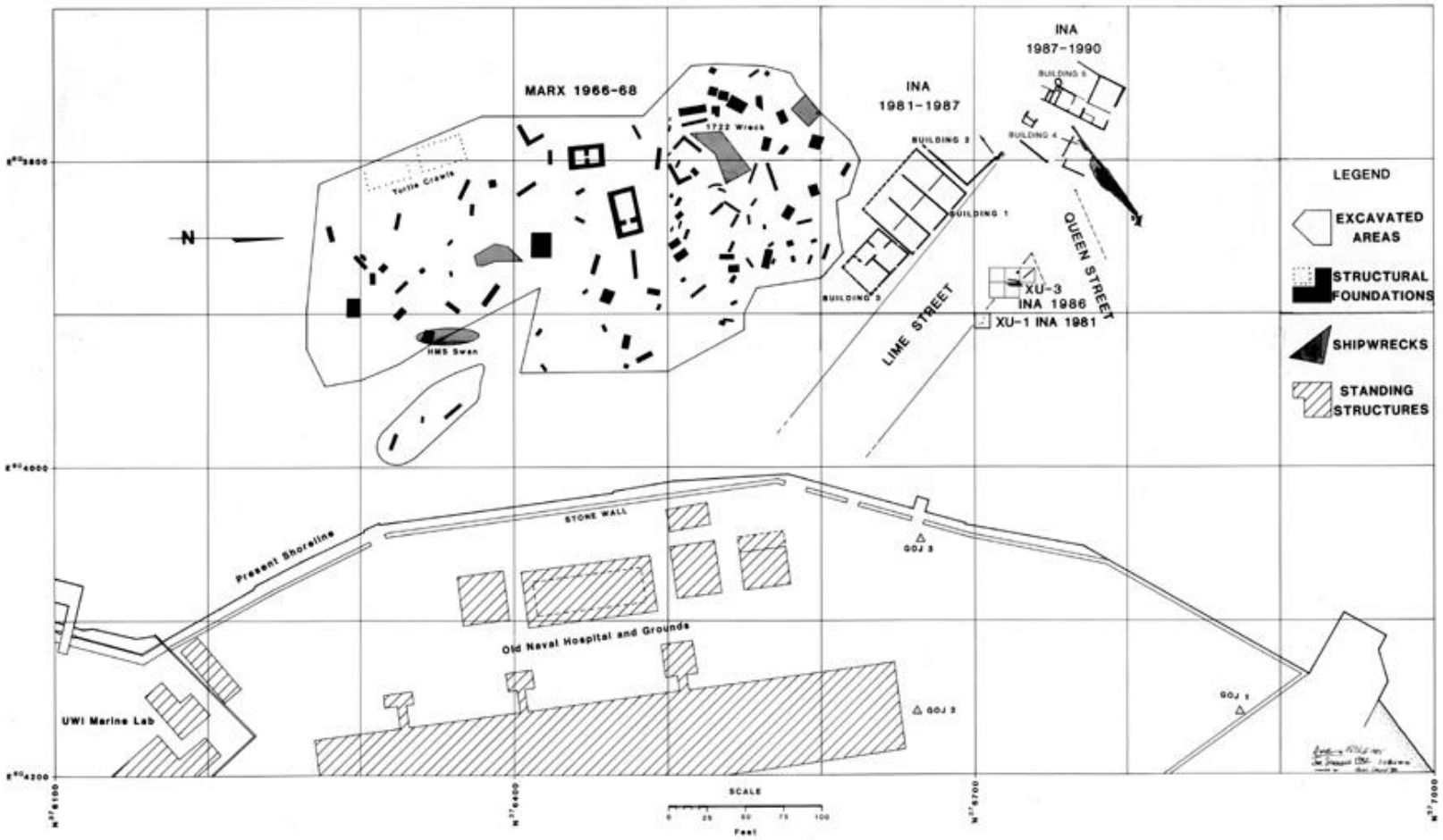

Figure 3-3. Excavated areas of Port Royal including Marx & Hamilton excavations. Reprinted from Hamilton 2001.

Port Royal Jamaica provides the opportunity to study foodways and the socioeconomic and political nuances of the late 17th-century English Caribbean through the animal bone recovered by archaeologists. The Port Royal faunal assemblage studied for this dissertation will be briefly discussed as a hole, in this chapter, although it will focus primarily on the green turtle specimens. Additional information including a description of taphonomy is located in Appendix B.

3.1.2.1. Distribution of Cheloniidae Specimens

The primary specimen types were humeri, radii, scapula/coracoids, plastron and carapace fragments, and a single skull fragment. The number of specimens in each category is represented in table 3.1. The majority of the Cheloniidae specimens were recovered near or in Building 1 (figure 3-4).[130] The central area, rooms 3 and 4, of Building 1 was likely a tavern; the other rooms probably serving as a pipe shop and a combination of woodturner and cobbler's shop. It is at the back of the woodturner and cobbler's shop where initial archaeological investigators believed butchery and/or food

Table 3.1 Number of elements for each type of Cheloniidae specimen from the 1981-1990 excavations at Port Royal analyzed for this study.

Element	Number	Element	Number
Humerus	26	Plastron	4
Scapula	22	Carapace	2
Coracoids	17	Femur	2
Skull	1	**Total**	**74**

[130] Hamilton 1981-1990.

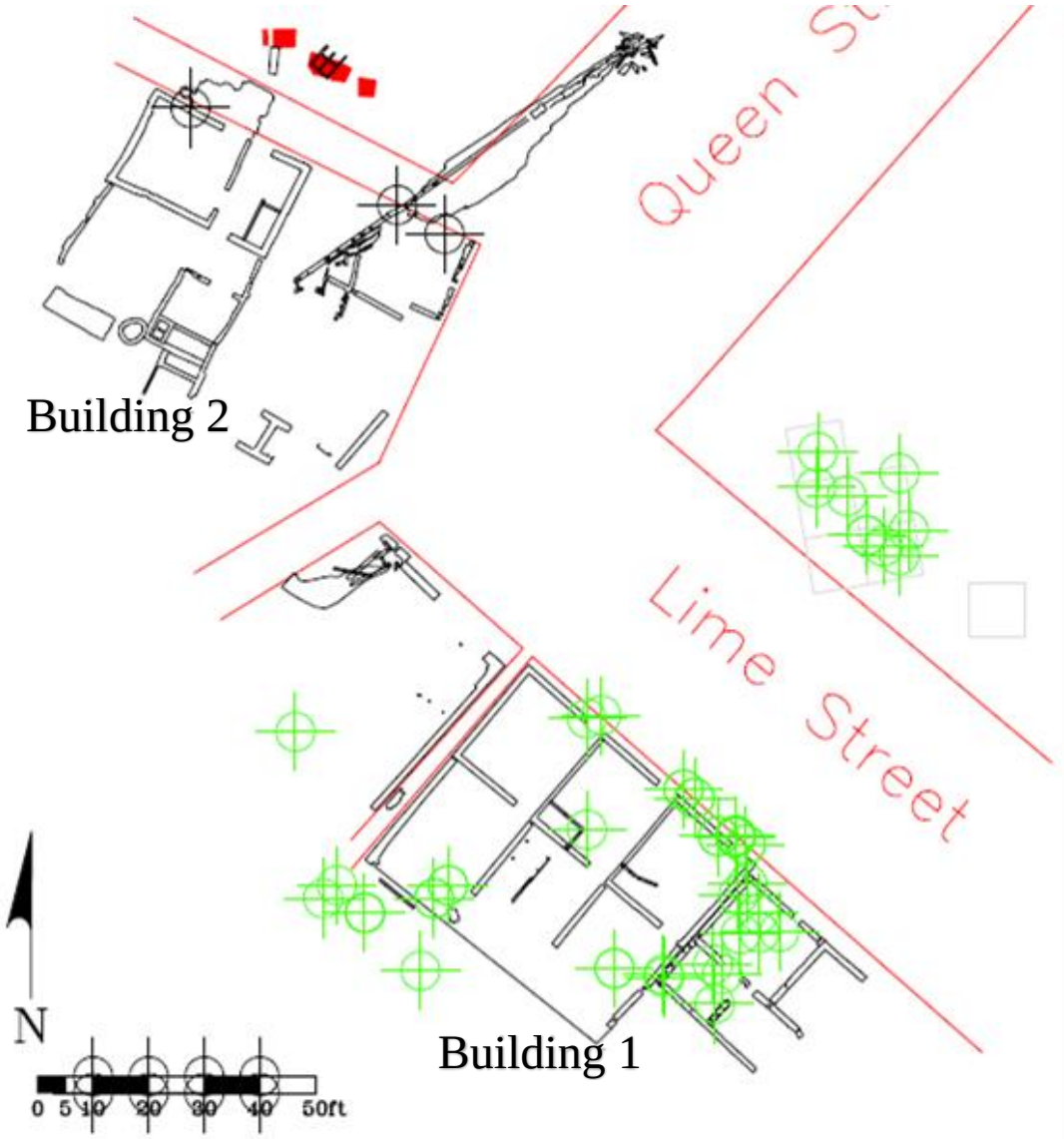

Figure 3-4. Sea turtle specimen distribution at Port Royal. Using specimen provenance recorded by the Hamilton excavations, Hamilton 1981-1990.

preparation that supported the tavern occurred.[131] The appearance of Cheloniidae in a tavern context is unsurprising and supports this interpretation of the use of space. Colonial consumption of marine turtles in taverns is attested to later in 18th-century newspapers such as the *New York Journal,* where tavern advertisements boast the addition of turtle barbeque to their menus.[132] Support for the consumption of sea turtle as a tavern dish is also found at archaeological excavation of the 1767 Coffeehouse Site in Williamsburg, Virginia where three sea turtle specimens were recovered.[133] Stewed in its own fat, sea turtle was considered both a tasty meal and a good source of meat for large numbers of people.[134]

However, at the time of Port Royal's demise, sea turtle meat had yet to reach its zenith as a popular English dish. Despite the appreciation of sailors for this food source, late 17th and early 18th-century, upper-class English society reviled sea turtles as a food, claiming it would infect the blood.[135] Its consumption was firmly associated with mariners.[136] This associated identity spilled over into coastal communities like Port Royal in general. Thomas Trapham, an English physician who practiced in Port Royal for a time, discussed sea turtle hatchlings in 1679, mentioning that while some perish, "… the other escape into the more proper Element [the sea], encreasing the stock of Turtle for the more constant furnishing the table of the deliciously feasting Jamaica Man…"[137] The phrasing

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[131] Hamilton, 2001. See figure 3.1.2.1A for a building map.
[132] *New York Journal* 23-7 August 1770, 3 September 1770.
[133] Lapera 2011, 40-8, 60.
[134] Hollett 2011, 18-20.
[135] Sloane 1707, xviii.
[136] Sáenz-Arroyo et al. 2006, 133.
[137] Trapham 1679, 63.

here is derisive in tone towards the "Jamaica Man," a veiled criticism of the excesses that Trapham considered unbecoming in the island's maritime community. Historian Brad Beaven explores themes of identity in sailortowns and naval ports in the 19th century. He notes that English sailortown culture often caricatured elite social classes with opulent displays of conspicuous consumption that created an "otherness" that was disdained by the groups being emulated.[138] While Beaven is discussing a much later period, we can see in these historical accounts that this same maritimity existed at Port Royal in the 17th century and that outsiders held similar views towards those members of the maritime community. This provides an important context for the Port Royal turtle bone assemblage and the tavern culture of which it was a part.

In addition to the turtle specimens recovered from Building 1, the structure yielded split bovid vertebra, various hand tools, metal hooks, and ceramics.[139] About 57% (121) of the total faunal specimens studied exhibited signs of butchery such as fillet marks, chop marks, or other cut marks. The tools, which align with the type of butchery marks identified in the assemblage, make it likely the initial impression of the excavators was correct, that butchery activity occurred at the structure, rather than prepared meats being brought in. Along with the bovidae (cattle, 23.13%) and the cheloniid (sea turtle, 53.12%) remains, caprinae (goat, 11.25%), phasianidae/anatidae (poultry, 8.75%), and suidae (pig, 2%), were also discovered, including the tibia of a suckling pig.[140]

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[138] Beaven 2016, 73-4.
[139] Hamilton, D. 1981-1990.
[140] Percentages are number of specimens observed divided by total number of identified specimens (160).

In 2001, the Museum of London excavated Paternoster Square, an area south of Newgate Street in London, which was home to many taverns between the 17th and 19th centuries. From a cesspit or cellar dating to the late 17th-early 18th century, faunal remains of ovid/caprid (sheep/goat), cattle, pig, and poultry were also recovered, with the majority deriving mainly from sheep and goat.[141] This suggests that although sea turtle was referred to as the "beef of the marine," in Port Royal tavern culture, it more accurately substitute for caprinea on Jamiacia, especially considering that the abundance of cattle remained relatively high at the Port Royal site.

The possible tavern in Building 1 was located in close proximity to the city's turtle crawls in the shoal water called Chocolatahole, and the market where turtle meat was sold.[142] Sir Hans Sloane, voyaging in the Caribbean in 1707, described the turtle hunting and consumption he witnessed at Port Royal. He first mentions that Port Royal had 180 sloops devoted to turtle hunting, as turtles were worth fifteen shillings a piece to the hunters,

> "and [the turtles are] put into pens, or palisaded places in the harbor of Port Royal, whence they are taken and killed, as occasion requires. They are much better when brought in first, than after languishing in those pens for want of food."[143]

Late 17th-century Port Royal had a bustling trade supplying ships with fresh turtle meat. The concentration of turtle remains in Building 1 suggests that turtle consumption was a central part to the city's tavern menus and culture as well.

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[141] Watson et al. 2010, 185.
[142] John Taylor mentions the location of the turtle crawls as being in Chocolatahole, Buisseret 2010, 153; Pawson and Buisseret (2000, 114) examine the location of Port Royal markets in Pawson and Buisseret.
[143] Sloane 1707, xvii.

3.1.2.2. Butchery Patterns

Of the specimen types for Cheloniidae, humeri and scapula/coracoids exhibited the most diagnostic butchery marks. These are primarily represented by cleaver marks, identified by the fractured exit of the cut and a smooth plane of cancellous bone. Much less frequent are other small cut marks noted among some specimens where the original surface of the bone survived. These marks, along with historic records, allow for the recreation of 17th-century marine turtle butchery practices at Port Royal.

What appears to be occurring in the Port Royal assemblage is that the plastron is first removed. The acromion and coracoid processes serve as points of attachment for large muscles, and thick connective tissue secures the plastron to these portions of the pectoral girdle.[144] A knife may have been used to fillet the muscle from the plastron, just below a layer of a thick cartilaginous substance, which is a key ingredient in turtle soup.[145] Next, the front fins were pulled outwards, and a cleaver was used to cut through the scapula as it extends into the glenoid fossa (see figure 3-5 for a diagram of the pectoral girdle). A secondary cut to sever the coracoid near the same place was then made.[146] After the first two cleaver cuts were made severing the scapula and coracoid, a knife could have been used to fillet the fin sections from their attachment on the carapace. The hind fins were processed in a slightly different manner as the femurs in the assemblage were intact. It is likely that once the front two quarters were removed, there was easy access to

[144] Wyneken 2001, 35.
[145] Garland and Carthy 2010, 59.
[146] See figure 3-5.

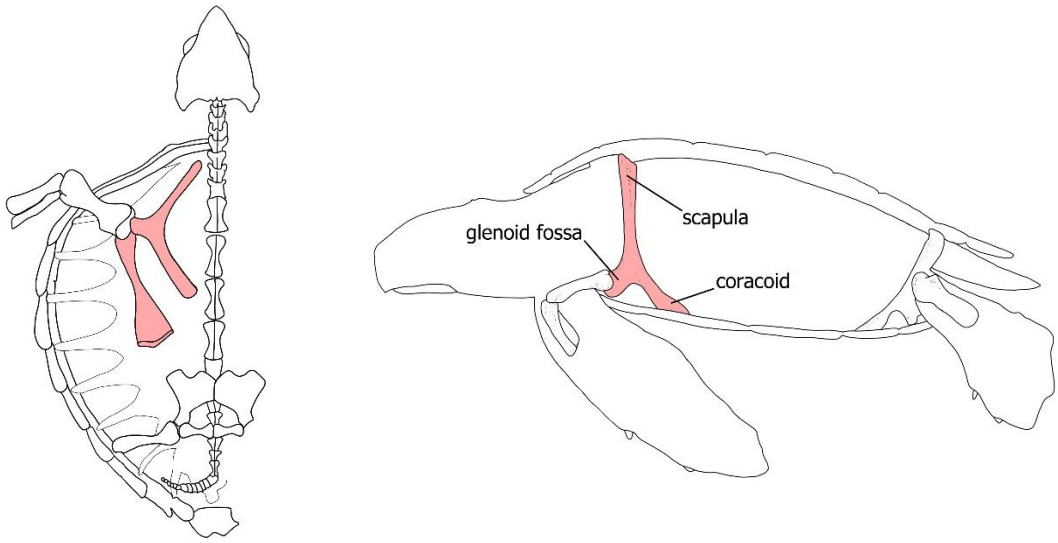

Figure 3-5. Diagram of pectoral girdle. Drawing by author.

use a knife to free the hind fin quarters.

After dividing the carcass into quarters, 18th-century writers instructed butchers to remove the fins from rest of the quarter meat. Mrs. Elizabeth Price described this step in sea turtle butchery in her cookbook from this period. After the butcher cut the meat from the back (carapace), Price instructed that the fins be cut off, scalded whole, and then chopped into smaller pieces. After seasoning, this meat was cooked into a soup.[147] This process can be identified in the Port Royal assemblage.

Two of the humerus specimens were completely intact without any secondary butchery marks.[148] These specimens indicate that during butchering, the fins were

[147] Price, E. 1780, 64.
[148] Artifact no. PR 83 523-3 and PR 85 1035-1. See figure 8 for a diagram of the humerus.

removed by inserting a knife into the joint and separating the humeral head from the socket. This interpretation is further supported by other specimens which, while they are missing their distal epiphyses, have the proximal end completely preserved starting midway up the shaft, or just below the deltoid crest.

Once the fin was removed from the quarter section, two to three oblique cuts were then made (figure 3-6). These cuts are very consistent, separating the humerus into four parts: the distal epiphyses & shaft (diaphysis), the deltoid crest, the head, and the medial process (see figure 3-7 for example specimens). This sectioning is relatively uniform throughout the assemblage and seems to mimic long-bone butchery practices already developed for beef. Several specimens show deep cut marks near where the humeral head was cleaved from the shaft, possibly indicating that the butcher utilized a knife to hold the element steady for sectioning (figure 3-8).

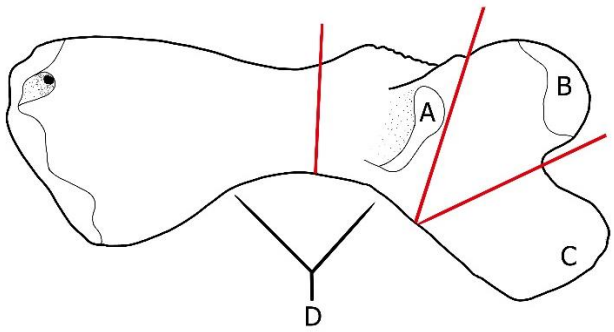

Figure 3-6. Diagram of cuts made to humerus (A) deltoid crest, (B) humeral head, (C) medial process, (D) diaphysis/shaft. Red lines indicate where humerus was cut**.** Drawing by author.

Figure 3-7. Sea turtle butchery at Port Royal. left: Pectoral girdles with the scapula and coracoid removed, leaving the portion that includes the glenoid fossa (top to bottom: PR85 916-3, PR84 207.1, PR85 915-4). **right:** Sectioned humerii, example specimens (top to bottom: PR86 146-1, PR85 1026-1, PR86 144-2,) **not to scale**. Photos by author.

Figure 3-8. Humeral head with cut marks. Specimen PR86 1437 from Port Royal. Photo by author.

Figure 3-9. Cleaver mark on humerus showing directionality. Specimens from Port Royal (Left: PR86 143-2, Right top: PR85 1025-1). Photo by author.

Cleaver marks, which show failed attempts at sectioning the humeri in the above manner, are also prevalent in this assemblage. These demonstrate the direction of the cut. For example, PR 85 1025-1 (figure 3-9 above), a proximal end of a humerus, indicates that the cut made distal to the deltoid crest was made from the ventral side to the dorsal, as is the first cut made to separate the head.

The sectioning of meat portions in this way shows that the turtle meat processed in room 1 Building 1 was likely destined to be made into soup. The small sectioning of the fin meat also supports this hypothesis. Furthermore, the lack of other skeletal elements suggests that the persons processing the meat were procuring pre-butchered portions of turtle from the turtle market rather than processing whole turtles in or near Building 1, or that there was a secondary disposal site for the missing skeletal elements.

The turtle bone assemblage recovered from the site is indicative of low-status consumption within a tavern context. High-status consumption would skew the assemblage towards more skeletal elements, including carpals, tarsals, phalanges, cranial elements, carapace and plastron fragments, all of which were not present or were under represented in the Port Royal material. English ship captains, merchants and elites have left record of "turtle frolics," which were feasting events where a West Indies turtle would be brought to the feasting location alive, where the meat was sometimes served in the shell in the 17th to 18th centuries.[149] Feasts such as these would have left behind the entire skeleton at the disposal sites associated with the feasting locations.

[149] Landon 2018, 255.

The abundance of processed turtle bones seen in Building 1 mirrors the historical evidence of turtles' central role in the diet of mariners and port residents in the 17th century. The ubiquity and utility of this food source resulted in its inclusion in tavern fare at Port Royal.

3.2. Turtle in Late 17th-Century and Early 18th-Century Foodways in the Caribbean

The procurement, processing, and consumption of foodstuffs are inherently social behaviors. Tanya Peres synthesized a decade of research that focused on these aspects of human life, and defined this patterned set of culturally constructed behaviors as foodways. The term encompasses the food and the acts of its procuring, preparing, and consumption, as well as any surrounding context.[150] Elizabeth Scott further demonstrated how food can provide not only indications of socioeconomic status but also is one of the most robust ways to study ethnic identity.[151] Archaeologically, we can explore these themes through geospatial analysis, faunal, and artifact analysis, among other avenues of research. The turtle remains, and their associated structures and artifacts, provide an excellent opportunity to study 17th-century foodways of the Caribbean.

3.2.1. Geospatial Analysis

In 2017, Chelsea Cohen created a geospatial reconstruction of Port Royal as it was before the earthquake in 1692. Using ArcGIS 10, Cohen georeferenced historical maps and modern satellite imagery of Jamaica (Figure 3-10), and was able to recreate the city's

[150] Peres 2017, 423.
[151] Scott 2008, 357.

Figure 3-10. Shoreline generated by Cohen 2017. Red ellipse indicates possible location of turtle crawls added by author. Reprinted with permission from Cohen 2017.

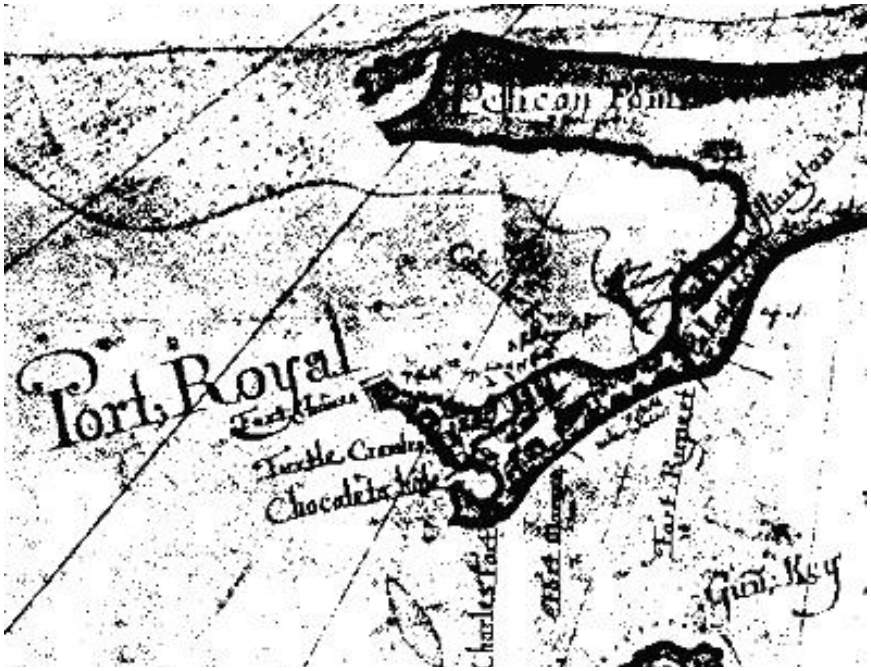

Figure 3-11. Map of Port Royal. Reprinted from William Hack 1683.

elevations and viewshed (what is visible from a given location) for the excavated buildings.[152] Using Cohen's georeferenced shoreline, one can locate the general area occupied by the Port Royal turtle crawls. William Hack, a mapmaker of London's Mapping School, included the turtle crawls of Port Royal on his 1683 map of the city (figure 3-11).[153] As mentioned above, this location is very close to building 1, and according to Cohen's data, would have likely been within visible range of each other. John Taylor also references the location of the turtle crawls as being in Chocolatahole in 1687.[154]

According to the 1688 account of Taylor, *Second Part of the Historie of His Life and Travels in America*, the stocks used to punish strumpets were within sight of the turtle crawls and public market.[155] While these structures may seem unrelated, it is likely that ideology played a role in the placement of the strumpet stocks. Starting in the 14th century until the beginning of the Age of Enlightenment, corporal punishment was used by civic governments to reinforce their authority publicly and demonstrate their commitment to the common good of the community. Furthermore, pillories and stocks maximized the psychological impact on the individual by having the long-term effect of ostracism.[156] Rather than placing stocks in an unsavory part of town to deter other prostitutes, they were instead likely to be in an area highly trafficked by citizens of good standing. Choosing such a location accomplished the public relations goals of government officials and

[152] Cohen 2017.
[153] See figure 3-9.
[154] Buisseret 2010, 153.
[155] Pawson and Buisseret 1974, 156.
[156] Carrel 2009, 304-5.

maximized public shaming. The primary intent was to deter potential criminals, citizens who had not committed a crime; secondary to this was the redemption or discouragement of individuals who were already criminals.[157] This context is valuable when considering the subsequent incorporation of the turtle into the wider English culture and its diet. The nearby stocks suggest that the turtle crawls were in a bustling section of town. This exposure to the general population of Port Royal helped in a small way to ease sea turtle into the role of English cuisine, moving it from a food source relegated primarily to the lower rungs of society: sailors, slaves, and the poor.

Another factor that may have contributed to sea turtle's later acceptance as a quintessentially "English" food at Port Royal may relate to the turtle crawl's location. Although sea turtle was considered a fish by many, its meat was not sold at Port Royal's fish market, which was located to the west of the Wherry Bridge.[158] For reasons that were likely logistical rather than ideological, the turtle crawls were very close to the market that sold beef, goat, sheep, and pig. Turtle meat or carcasses could easily be transferred from the crawls to that location. However, this placement of convenience greatly impacted the incorporation of sea turtle into English cuisine. Beef was a key dietary component of English identity since the 16th century. Andrew Boorde, in his 1542 *Dyetary of Helth*, recognized beef as "a good meate for an Englysshe man," and stated that it makes Englishmen strong.[159] Beef became inexorably linked with "Britishness" and English

[157] Carrel 2009, 306.
[158] Pawson and Buisseret 2000, 114.
[159] Boorde 1870, 271.

patriotism over the next century and a half, to such an extent that Joseph Addison attributed military victories to the consumption of beef by English soldiers in 1710.[160] French sociologist Pierre Bourdieu explored the concept of "lifestyle," which links elements of personal preference, such as taste, to the distribution of cultural, social, and economic capital. This theoretical approach is particularly applicable in this case, where the "Britishness" of beef comes from these intangible sources of capital. The taste preference is transferred to other members of society as a consequence of social practice, generating "habitus" that unconsciously guides an individual's choices.[161] In Port Royal at least, the sale of turtle meat occurred in the market alongside traditionally English foods such as beef, and by association, crept into the English identity.

3.2.2. Class and Social Hierarchy

Habitus furthermore continually reinforced this relationship between turtles and "Englishness" with the 17th-century rise of institutions such as coffee houses, taverns, and clubs, which became important devices of inculturation. These public spaces made consumption more visible, and thus, a more inescapable declaration of identity. In addition to the tavern within building 1, Port Royal was home to a large number of taverns and punch or coffee houses.[162] In conjunction with the prevalence of these public spaces, other archaeological evidence points to a rise in the disposable income of the general public that mirrored that of England. The presence of over 21,000 kaolin clay tobacco

[160] Bierne, 2018, 143.
[161] Bourdieu 2013; Højlund 2015, 1.
[162] Fox 2002, 69.

pipes in the Port Royal excavation collections demonstrates that not only was smoking a popular leisure activity for the individuals who lived there, but also that the average consumer had enough purchasing power to procure them.[163]

Along with the growth in disposable income, it seems that food prices inflated at Port Royal. Primary accounts from the 1680s note that provisions were more expensive here than anywhere else in the Caribbean.[164] The cost of sea turtle meat at Port Royal was 18 to 25 shillings per barrel, according to Thomas Amy in 1682, and John Taylor quotes the price of 1 groat (or 4 pence) per pound for turtle meat in 1687.[165] To put this in perspective, a gallon of brandy sold for 5 shillings sixpence, and tobacco sold for a shilling or less around the same time.[166] Beef and goat, two other English dietary staples, like turtle sold for 4 pence per pound, while mutton was slightly more expensive at 6 pence per pound.[167] While the cost of turtle was comparable to beef, Taylor maintains that it was the "great and cheife provition on Port Royall, and on most other places on Jamaica."[168]

While Taylor mentions that many edible fish were caught off the coast of Jamaica, the emphasis on turtle in the island's diet has much to do with Port Royal's economic history. Port Royal was, as previously mentioned, ideally situated to serve as a hub for transatlantic trade. The signing of the Treaty of Madrid in 1670 allowed Spanish ships

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[163] Fox 2002, 71-2.
[164] Buisseret 2010, 140.
[165] Amy 1682, 28-9; Buisseret 2010, 153.
[166] Pawson and Buisseret 2000, 147; Nally 2010, 42.
[167] Draper 2017, 792-3.
[168] Buisseret 2010, 153.

safe anchorage in English harbors. While this treaty did not condone trade between the two nationalities, its signing created a boom in illicit trade. Spanish merchants purchased slaves for their plantations and mines, and Port Royal residents had access to manufactured European luxury goods.[169] This dramatic and sudden increase in the volume of trade and trade potential spawned a middle class of merchants and traders that, in turn, supported a well-paid class of tradesmen.[170] Timothy Trussel points out that this phenomenon had a two-fold effect on the domestic economy of Port Royal. First, it created a social hierarchy that was much more mobile and fluid than that of England, and this fluidity then increased instances of conspicuous consumption, as appearances could dramatically influence ones position in this hierarchical system.[171] This economic context is likely the cause of the preference for turtle, which had become more "English" over other native Caribbean fish, as reported by Taylor.

Green sea turtle was not the only turtle consumed by the population of Port Royal. *Dermatemys mawii*, or the Central American river turtle, was known to 17th-century Europeans as the "hiccarie" or "hiccatee." No remains from this smaller freshwater turtle appeared during the excavation of Port Royal, and this is likely due to class distinctions reflected in Jamaica's foodways. According to Taylor,

> "[The hiccarie] turtle is not above half soe bigg as the green tortoise, and he hath a verey great ill-proportioned head but also 'tis every waie made like the former, both external and internall, but is not soe fatt, white or tendor, and is therefore here

[169] Zahedieh 1986, 571-92.
[170] Trussell 2004, 155.
[171] Trussell 2004, 164-5.

> of little esteem, being seldome eaten by the English, but given to Negros, whoe will feed as hartly theron as Saundy the Scott on a sow's baby."[172]

The hiccarie was a readily available source of protein, especially in the dry season in Jamaica and other parts of the Caribbean and Central America. While some later writers report that the flesh was not as tasty as sea turtle, class association likely played a significant role in preventing it from being adopted into the English diet at Port Royal.[173] The exploitation of this turtle for slave diets was high, and the species is now critically endangered.[174]

3.2.3. Religion

Religion also influenced how English colonial culture adopted sea turtle meat. Even though Anglican orthodoxy was reasserted under King Charles II, a variety of different faiths thrived at Port Royal. Catholic, Presbyterian, Quaker, and Jewish religious establishments all coexisted there during the second half of the 17th century.[175] The number of Christians meant that a large percentage of the population fasted on Fridays, which for most meant abstaining from animal meat for the day.[176] Luckily for the residents of Port Royal, sea turtle was a dietary loophole.

According to the majority of esteemed European naturalists, such as Conrad Gesner, the sea turtle was categorized as a fish.[177] Fish were by some considered

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[172] Buisseret 2010, 154.
[173] Simmonds 1859, 172.
[174] Rangel-Mendoza and Weber 2015, 499.
[175] Pawson and Buisseret 2000, 158-9.
[176] Fagan 2008, 15.
[177] Gesner 1563.

acceptable to consume on fasting days.[178] The popularity of sea turtle likely increased in part because of this factor, contributing to the heavier reliance on the animal in Port Royal diets.

Elsewhere in the colonial Americas, the same intersectionality of convenient proximity to sources of turtle, religion, and class did not present itself, and sea turtle did not become a major element in the foodways of other European cultures. Spanish colonialists, for example, did not similarly adopt sea turtle into their diets, despite being predominantly Catholic. William Dampier mentioned the Spanish aversion to turtle meat, and it may be that the meat's reputation for tasting like veal made church authorities opposed to considering it a fish for religious purposes.[179]

At Port Royal, circumstances led to the incorporation of sea turtle into English foodways in ways not found in the cultures of other European colonial powers during the 17th century. The use of geospatial analysis has uncovered some of the nuances of these conditions, showing how both class and religion shaped sea turtle's role in Port Royal foodways. This avenue of research enables us to situate the Port Royal faunal assemblage within its cultural and historical context.

[178] Fagan 2008, 10-15.
[179] Smith 2000, 58.

4. TURTLES IN THE SAILOR'S DAILY LIFE

Practically, turtle was particularly well suited for inclusion in the shipboard diet, as a single large turtle could oftentimes feed a whole crew. They could be kept alive on a ship for an extended period of time and serve as a source of fresh meat, a welcome change from the hardship of weevil-ridden biscuits and salted, leather-like beef. Writers from Alexander Exquemelin in 1666 to William Dampier in the 1680s, to Captain Cook in 1771 mention the use of sea turtle as a mariner's provision and provide glimpses of the daily life context of its consumption. These accounts, coupled with archaeological assemblages, illuminate aspects of turtle hunting methods, processing, and consumption behaviors that can be analyzed to answer questions about mariner culture and this food source's incorporation into sailors' daily life.

4.1. Acquisition and Hunting Methods

While Christopher Columbus details indigenous use of remora to hunt sea turtle, this was not the way that most turtle ended up in the sailor's soup pot. Europeans had traditionally relied heavily on local populations to plug into foreign ecologies, allowing the establishment of extractive economies. This practice was standard in the development of 15th-century European medicine and apothecary, an area where knowledge from the east was transplanted into the European repertoire.[180] Europeans recognized that the best way to tap into the resources of new places was to allow indigenous populations to identify what was valuable, and they used the expertise of these groups to extract it. This same

[180] Grove 1996a; Grove 1996b, 73-94.

practice manifested itself in the microcosm within the shipboard world.

4.1.1. Miskitu Strikers

Upon arriving in the West Indies, 17th-century English mariners would often take onboard Miskitu hunters to keep the crew provisioned with fresh meat. The Miskitu people were and still are a group inhabiting the eastern coastlands of Nicaragua and Honduras.[181] In April of 1681, William Dampier, an English privateer and explorer, reports:

> [The Miskitu men's] chiefest employment in their own Country is to strike Fish, Turle, or Manatee, the manner of which I describe elsewhere, Chap. 3. For this they are esteemed and coveted by all Privateers; for one or two of them in a Ship, will maintain 100 Men: So that when we careen our Ships, we choose commonly such places, where there is plenty of Turtle or Manatee for these Moskito Men to strike; and it is very rare to find Privateers destitute of one or more of them, when the Commander, or most of the Men are English; but they do not love the French, and the Spaniards they hate mortally.[182]

Dampier furthermore emphasized how important it was for ships to carry "Miskitu Men". In 1684 he attributed the near-starvation of Captain Charles Swan's crew to the lack of having such a "striker" to catch turtle or other large sea animals.[183] This brief anecdote was used by Dampier to point out the failings and poor judgment of Captain Swan. Alexander Exquemelin, the famous documenter of buccaneers in the Caribbean, mentioned the prevalence of this practice by pirates, who took Miskitu hunters into their crew for up to several years, due to their ability to sufficiently victual ships with

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[181] The modern national designation for the group is "Miskitu", which will be used in this dissertation except in original quotations, but alternative spellings include: Mosquito and Moskito, predominantly found in historical Spanish and English records. Moore 1986, 132; Herlihy and Tappan 2018, 69-70.
[182] Dampier 1900, 39-40.
[183] Dampier 1900, 182.

complements of up to one hundred persons.[184]

Often referred to as "strikers" in 17th-century accounts, the moniker stems from the hunter's chosen tool. The strikers used a type of pole spear with a barbed tip. From a canoe or small boat, the hunter would spear sleeping or surfacing sea turtles, and the barbed tip would detach from the staff. The detachable spear tip allowed the strikers to haul in the animal via a line attached to the barb. Some accounts report the staff itself was used as a buoy to mark the turtle's location and aid in tiring it for easy collection.[185] Dampier mentioned that the strikers on his crew used both harpoons and "turtle-irons," but did not go into detail about either hunting implement. A century later, in his *History of New Holland*, William Auckland described a wooden harpoon he called a "turtle peg," lodged inside the healed wound of a captured sea turtle.[186] Additional insight into European turtle-hunting practices by Exquemelin, who wrote that Spanish sailors struck their own turtles, perhaps due to the animosity between Iberians and Miskitu mentioned by Dampier:

> Their [The Spanish] method of taking them is by making with a great nail a certain kind of dart. This they fix at the end of a long stick or pole, with which they wound the tortoises, as with a dagger, whensoever they appear above the water to breathe fresh air.[187]

A much later sketch by artist W. Trembull in 1874 shows a similar method of turtle striking off the coast of Central America (figure 4-1). However, the pole shown in Trembull's

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[184] Exquemelin 1911, 294.
[185] King 1825, 6.
[186] Auckland 1787, 167, 244.
[187] Exquemelin 1911, 92.

Figure 4-1. Spearing turtle on the Miskitu Coast, 1874. Courtesy New York Library. Reprinted from The Miriam and Ira D. Wallach Division of Art 1874.

artwork does not have barbs but does seem to have a detachable point and line.

The incorporation of local laborers into English crews was not a new phenomenon. Earlier in the 17th century the high death rates of sailors working on the Indian Ocean forced the English East India Company ships to utilize local sailors to supplement dwindling original crew numbers.[188] This recruitment was not always voluntary, and regardless of whether they were free or unfree labor native sailors in general had

[188] Hubbard 2016, 353.

significantly less autonomy than English crewmen.[189] In the case of West Indies strikers, however, English captains did not employ the same coercive practices seen in the Indian Ocean. Dampier relates this disinclination to exert control over these specialized laborers:

> We always humour them, letting them go any whither as they will, and return to their Country in any Vessel bound that way, if they please. They will have the management of themselves and their striking, and will go in their own little Canoa, which our men could not go in without danger of oversetting: nor will they then let any white man come in their Canoa, but will go a striking in it just as they please: All which we allow them. For should we cross them, tho' they should see Shoals of Fish, or Turtle, or the like, they will purposely strike their Harpoons and Turtle-irons aside, or so glance them as to kill nothing.[190]

Their special role and the autonomy of their own boats gave the strikers greater power in the hierarchy of vessel crews. Dampier made a significant statement in July of 1685, saying that while lying at Quibo, "We struck Turtle every day, for they were now plentiful…"[191] This passage either means that there was a transference of expertise from the Miskitu strikers to the English crew, or Dampier's use of the pronoun "we" suggests that these individuals were viewed as part of the crew, rather than as outsiders. This is an important point to consider when trying to understand the maritimity of English crews in the Caribbean and shipboard culture. In reality, both instances were likely correct. In October 1685, Dampier again referred to their "Moskito Men," so we know that they had not left the crew. [192] Exquemelin in his account, noted that Captain Bartholomew Sharp had become quite good at striking turtles, a skill he must have learned from the Miskitu

[189] Ransley 2014, 118.
[190] Dampier 1900, 42.
[191] Dampier 1900, 234. Exquemelin 1911, 387.
[192] Dampier 1900, 252.

strikers.[193] This relationship might be construed as what Karl Offen referred to as "incentivized captivity," but this does not seem to be the way this arrangement was viewed by European mariners and the Miskitu strikers themselves. Instead, their crucial role as provisioners to their host crews allowed the native hunters to claim equal or even privileged status on a ship. Seventeenth-century French buccaneer Raveneau de Lussan saw this and remarked that Miskitu strikers only joined crews if they received a share of the prizes captured.[194]

The exploitation of sea turtles by passing ships was often highly intensive, with vessels lying at anchor for a few days while the crew caught every possible turtle. The French buccaneer de Lussan complained about the English having beaten his ship to an island and taking nearly every last turtle there. He blamed the "divers," likely Miskitu strikers, employed by the English for overhunting. The crew of de Lussan's ship caught only two turtles in a twenty-four-hour period, a woefully inadequate number to feed 330 men.[195]

4.1.2. Turning Turtle

Another method employed by Europeans was turtle turning. As the term implies, turning turtle required the hunter to come upon nesting turtles while they were on the beach and, using muscle power or a staff as a lever, flip the creatures over so that they cannot escape (figure 4-2). This strategy permitted crews to incapacitate high numbers of

[193] Exquemelin 1911, 387.
[194] Offen 2005, 46.
[195] de Lussan 1705, 99.

Figure 4-2. Catching turtles on the coast of Cuba, 1856. The Miriam and Ira D. Wallach Division of Art, Prints and Photographs: Picture Collection, 1856-8. The New York Public Library. "Leathery Turtle ; Hawk'S-Bill Turtle ; Catching Turtles On The Coast Of Cuba ; New Holland Chelodina ; Plastron Of Leathery Turtle ; American River-Tortoise." New York Public Library Digital Collections. Accessed September 5, 2017. http://digitalcollections.nypl.org/items/510d47e1-08e7-a3d9-e040-e00a18064a99. Courtesy New York Library. Reprinted from The Miriam and Ira D. Wallach Division of Art. 1856-8a.

Figure 4-3. Turtle-catching land. By artist Samuel Howitt from *Foreign Field Sports, Fisheries, Sporting Anecdotes, &c. &c*: *from drawings by Messrs. Howitt, Atkinson, Clark, Manskirch, &c. Containing one hundred plates*. *With a supplement of New South Wales*. Aquatint. Reprinted from Williamson 1814, plate 42.

the animals and allowed them to return to collect them at their leisure. Samuel Howitt portrayed a crew engaged in this activity in an aquatint from 1814 (figure 4-3).

Quaker and surgeon Henry Pitman found himself amongst the company of privateers after escaping from involuntary servitude on Barbados in 1685.[196] In his book, *A Relation of the Great Sufferings and Strange Adventures of Henry Pitman*, he related his experience on Tortuga and how the crew subsisted on turtle:

> …being led by the Example of those four privateers that staid behind, we walked along the sea-shore to watch for Tortoise or Turtle, which when they came up out of the Sea to lay their Eggs in the sand, we turned them on their Backs, and they being uncapable of turning themselves again, we let them remain so till the day following, or until we had convieniency of killing them; for if they were sufficiently defended from the heat of the Sun by a shade, which we usually built over them, they would live several days out of the water: And thus we walked to and fro in the Night to turn Turtle, and in the Day time we were employed in killing them.[197]

English merchant and historian Richard Ligon in 1657 also mentioned this practice in his book *A True & Exact History of the Island of Barbadoes*.[198] Ligon stated that staves were used as levers to aid in turning the massive creatures.[199] This method made the task significantly more manageable as green turtles acquired this way likely had a carapace length somewhere near 100 cm and a weight of around 145 kg.[200]

Turning turtle for victualling worked only during the nesting months, from late spring to mid-summer. Thomas Amy reported in 1682 that both seamen and turtlers

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[196] Weddle 1992, 73.
[197] Pitman 1689, 22.
[198] Lee 2005, 311-3.
[199] Ligon 1657, 36.
[200] Goshe 2009, 1; Carapace length is related to green sea turtle weight; however, it is also directly influenced by age. The estimation of 145 kg for the weight of a turtle with a SCL of 100 cm was derived from a study of captive-reared turtles. Wood and Wood 1993, 51.

exploited the months of April through June at the Caymans. With enough men, the exercise resulted in 40 to 50 turtles turned a night, all upwards of 200 pounds (91 kg), which was plenty of meat to sustain a ship's crew.[201] On Anson's voyage around the world from 1740 to 1744, his crew ate nothing but turtle for four months. Waiting at Panama until the turtles came ashore to lay eggs the sailors turned them over one by one before rounding them all up and taking them to the ship.[202] Captain James Cook's experience with turtling at Kiritimati (Christmas Island) probably looked like Howitt's vignette (figure 4-3). From 26 December 1777 to 1 January 1778, seamen and officers from both Captain Cook and Captain Charles Clerke's crew were employed in turtling. Cook reported the total catch at 300 turtles, all weighing 90 to 100 pounds (40 to 45 kg).[203] As far as expended effort and manpower compared to calories procured, green sea turtle hunting is an extremely profitable tradeoff, with 40% of the animal's total weight being consumable flesh. This calculation does not even consider the valuable fat also used or consumed by sailors.[204]

4.1.3. Catching Turtle at Sea

In addition to stopping at nesting grounds and sending out crews, ships caught turtle while at sea. In 1773 Henry David described Captain Carteret's use of nets from his

[201] Amy 1682, 28.
[202] Walter 1974, 207.
[203] Cook 1784, 182-6.
[204] Antczak et al. 2006, 65.

ship to catch turtle off the coast of Wallis Island in the Pacific Ocean northeast of Fiji.[205] Commodore John Byron described his crew's attempt to take turtle in July 1764:

> In the morning of the 27th, we made the island of Sal, one of the Cape de Verds, and seeing several turtle upon the water, we hoisted out our jolly boat, and attempted to strike them, but they went down before our people could come within reach of them.[206]

New methods of hunting were developed by some crews. For turtling at night, European sailors hunted from small boats using torches, the light from which they hoped to transfix the turtles and spear them as they floated motionlessly.[207] Occasionally, when no other tools were available, men were sent out in boats among a large group of floating turtles. The best swimmer among them would jump out of the boat and grab onto the turtle's tail and shell. Preventing the turtle from diving, this maneuver caused the turtle to thrash about the surface until the boat could come alongside to haul both the diver and his catch aboard.[208] Mark Catesby and Dr. Cromwell Mortimer, natural historians writing in 1735, briefly mentioned the practice of harpooning or diving for turtle while at sea.[209]

Sixteenth-century Dutch printmaker Philips Galle depicted mariners catching sea turtle (figure 4-4). In this work, the men use oars to hold swimming sea turtles and lever them into their small boats. It appears that the operation required one man per boat to row and maneuver, and one to two additional men between them to successfully acquire the

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[205] Henry David wrote *Historical Account of All Voyages Around the World* (1773), 141; The *Bombay Courier* also discusses the crew of Thomas M'Quay taking a small turtle while adrift, *Bombay Courier* January 6 1798.
[206] Hawkesworth 1773, 4.
[207] Smith 1985, 330.
[208] Walter 1974, 208.
[209] Catesby and Mortimer 1735, 116.

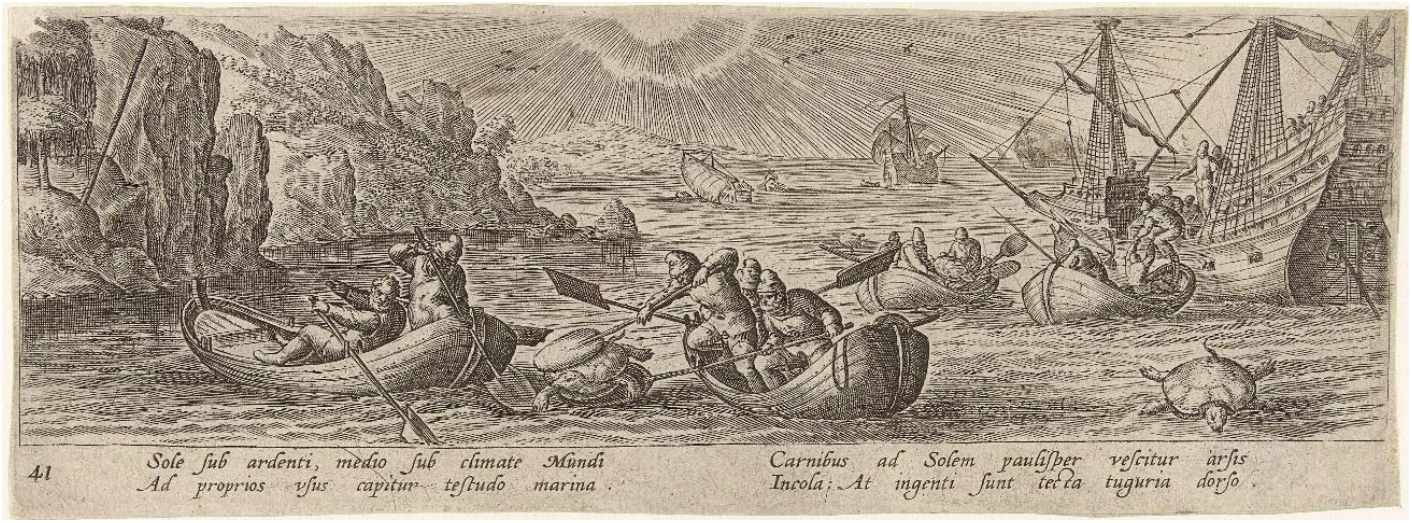

Figure 4-4. Jacht op zeeschildpadden. Philips Galle (attributed to the workshop of), after Hans Bol, 1582 – 1633. Courtesy of the Rijksmuseum, item number RP-P-OB-6647. Reprinted with permission from Galle 1582.

Figure 4-5. Vissers op zee vangen een schildpad. Nicolaes Cornelisz Witsen, after Hans Bol, 1656-1717. Courtesy of the Rijksmuseum, item number RP-P-1889-A-14267. Reprinted with permission from Witsen 1656-1717.

animals. Other printmakers copied this scene in the following centuries, including Nicolaes Cornelisz Witsen.[210] It is possible that turtle hunting implements represented in these nearly identical prints were specially made, purpose- specific tools, as they are differently shaped from the oars used to row the small boats. It does appear to be an endeavor involving all available hands, as Galle's scene shows seven boats employed in turtling, or returning with their catch to the ship anchored in slightly deeper waters.

While turtling provided calories and a dietary diversion from ship biscuit (hard tack) and salted meats, the turtling itself served a social function as well as a utilitarian one. A variety of primary sources across many periods attest to boredom at sea during long voyages, and hunting animals as a way to alleviate it.[211] Turtling was not always initiated by the captain or senior officer. During Captain Cook's first voyage around the world between 1768 and 1771, officers on board requested time to go turtling.[212]

Crews did not always have to catch turtle themselves or directly hire Miskitu strikers to procure turtle meat; often, ships could purchase large quantities of the animal, alive or salted and barreled. During George Anson's voyage around the world from 1740 to 1744, the ship stopped at Quibo (Coiba Island) off of the pacific coast of Panama, where it took on enough turtle to feed the crew for four months. The turtles not only allowed Anson to extend the other provisions, but also were believed to raise crew morale.[213] Ships visiting Java in the 18th century resupplied with turtle that was so plentiful that crews

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[210] Witsen 1656-1717, fig. 4-5.
[211] Hagseth 2018, 141.
[212] Cook 1893, 288.
[213] Walter 1974, 207.

would eat it almost exclusively upon departure from there.[214] When Captain Samuel Wallis anchored off of the coast of Cap, an island between Sumatra and Java, a Dutch boat sold him some turtle when many in his crew got sick with a flux.[215]

4.2. The Role of Turtles in the Shipboard Diet

Turtle meat was, on the whole, very well received by the crews who incorporated it in their shipboard diet. Practically, turtle was well suited for shipboard diet, since (as noted earlier) a single large turtle could oftentimes feed an entire crew. William Dampier was particularly fond of turtle soup at sea, and Exquemelin claimed turtle to be the most pleasant meat in the world.[216] Faunal analysis of bones from shipwrecks can shed light on the role of sea turtle meat in the shipboard diet.

4.3. Archaeological Patterns

Archaeological evidence for the shipboard consumption of turtle meat is relatively abundant for the 16th and 17th centuries; however, the recovered bones are predominantly from smaller, terrestrial or riverine turtles. Archaeological evidence supporting the use of Testudines to supplement provisions comes from the wrecks of the Spanish 1554 fleet off the coast of Padre Island, Texas. Faunal remains recovered included pig, fish, and indeterminate turtle.[217] Similar evidence comes from a Dutch ship, called the New Old Spaniard by its excavators, which sank off Bermuda between 1620 and 1640. Archaeologists recovered a humerus and a small portion of carapace from a yellow-footed

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[214] Hawkesworth 1773, 133-4.
[215] Hawkesworth, 290.
[216] Shipman 1962, 37; Anderson 1911, 434.
[217] Arnold and Weddle, 1978, 258.

land tortoise (*Geochelone denticulate*) from this shipwreck. The range of this species in South America includes the region of 17th-century Dutch settlements, and it was likely a source of fresh meat for outgoing ships.[218] Thirty-one turtle bone fragments from western box turtles (*Terrapene ornate*) were recovered from *La Belle*, a French ship that sank in Matagorda Bay, Texas in 1686. The distribution of remains at the wreck site suggests that large numbers of these turtles had been captured on land and then loaded onto the ship.[219] There was one specimen recovered from a sizable Testudines individual, which may belong to a sea turtle.

The wreck of *La Belle* provides a unique opportunity to learn about shipboard processing of turtles. Little direct evidence is present among the Testudines bones themselves. Only two specimens, from western box turtles, had cutmarks from butchery.[220] What offers more insight is the reconstruction of the ship's galley. The use of brick hearths for cooking on ships was common by this period, and food was usually cooked in a large cauldron. This arrangement has been found on a variety of ships, typically located in the forward part of the vessel, such as on the 300-ton French privateer *Dauphine*, which sank in 1704 in the Bay of Saint-Malo.[221] On the *La Belle* wreck site there were two areas that may indicate locations of hearths, one in what would have been the stern of the ship, and one associated with the main hold assemblage. Excavators interpreted the bricks near the after hold as a dry stacked-brick hearth surface, which is

[218] Armitage 1989, 147-51.
[219] Bruseth and Turner 2005, 125.
[220] de France 2017, 759.
[221] Ministère de la Culture 2020; Ray 2017, 282.

supported by the presence of clearly associated animal bone.[222] The second collection of bricks was much smaller, near the main hold amidships, and if it had originally served as the ship's galley, it did not after *La Belle* was repacked in 1685 at which time shot casks were loaded on top of the bricks. Both of the brick assemblages, if reconstructed as hearths, were too small to prepare meals for a full crew, and the aft hearth was likely only used in inclement weather or for warming fires.[223] The galleys on ships like *La Belle*, *Dauphine*, and even the Swedish warship *Vasa* (sank in 1628), were very small, being about 3 meters by 2 meters.[224] Such a cramped space would have been inadequate to butcher and process large Testudines like the one represented in *La Belle*'s faunal assemblage, whose carapaces would have been around one meter or more in length. Instead, they were likely prepared on the main deck. Cookware and other food related artifacts were found to the starboard side of the wreck also support the hypothesis that large-scale cooking and food preparation occurred on the main deck.[225]

This same use of space may also have been employed on English vessels. William Richardson, an English mariner in the late 18th century, recounts how his ship victualled with a considerable number of live turtles and explains how they butchered them onboard:

> We shaped our course for one day, and each day lived like aldermen on turtle soup: every evening for near six weeks, a turtle was hung up to the skids by its two hind fins and the head cut off to let it bleed…Next morning it was cut up and put into coppers, and when boiled, served out to all hands with two or three bucketsful of eggs into the bargain.[226]

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[222] Ray 2017, 285-6.
[223] Ray 2017, 287-9.
[224] Ray 2017, 281.
[225] Ray 2017, 290.
[226] Richardson 1908, 103-4.

Richardson is not clear on whether the subsequent portioning and boiling occurred on deck or below, so this hypothesis remains conjecture.

The 17th-century Spanish galleon *Nuestra Señora de Atocha* also carried a variety of Testudines when it sank. The ship was part of a treasure fleet that departed for Spain from Havana on 4 September 1622. Caught in a hurricane, the *Atocha*, along with the *Santa Margarita*, sank off the Florida Keys two days later. Out of the 986 faunal specimens recovered from the shipwreck site, 44 belonged to various species of turtle or tortoise (see table 1). Two of the land tortoise (*Geomyda* sp.) specimens, a humerus and a carapace fragment, have butchery marks.[227] A nearly complete *Geomyda* sp. carapace was also found, suggest that the tortoises were being killed, or at least dressed, onboard. In addition to the tortoises, there were also charred pieces of plastron belonging to two marine turtles indicative of shipboard cooking.[228]

Table 1. Testudines species recovered from *Nuestra Señora de Atocha* (Chapin 1990, 36-7).

Species	**Bone CT**	**MNI**
Land tortoise (gen. et. sp. Indet.)	9	2
Pond terrapin (*Pseudemys scripta*)	2	1
Land tortoise (*Geochelone* sp.)	1	1
Land tortoise (*Geomyda* sp.)	18	3
Atlantic Green sea turtle (*Chelonia mydas*)	1	1
Atlantic Loggerhead sea turtle (*Carretta caretta*)	2	1
Loggerhead sp. (*Caretta* sp.)	5	--
Unidentified turtle	4	2

[227] Chapin 1990, 41.
[228] Chapin 1990, 9-50.

The charring of the plastron, in particular, provides further information about turtle consumption on ships. While mariners like Dampier mention turtle soup or stew, that does not appear to be how the animals on *Atocha* were cooked and served. Turtles prepared for soup would have been butchered like those from Port Royal described in Chapter 3. During this butchering process the plastron was discarded, prior to cooking. The burned plastron fragments indicate that the animal was more likely roasted whole, or halved—something not attested to in the historical sources as a common shipboard practice.

While there is scant historical mention of shipboard roasting of turtle, Henry Pitman does describe his experience of cooking them in this manner whole ashore:

> [the turtle] flesh was the chiefest of our Diet, being roasted by the fire on wooden spits; and sometimes when we designed a Festival we left some part of the Flesh on the Calepatch and Calapee, that is the Back and Breast Shells, which we roasted by setting them upright in two forked sticks thrust into the Sand, before a large Fire.[229]

Dampier mentioned boiling turtle into a stew and serving it over rice as shipboard food, and this method of preparation was most likely the cooking style for most turtle meat consumed by sailors.[230] The infrequent occurrence of calcined plastron or carapace fragments on shipwreck sites supports this hypothesis. Furthermore, boiling salted turtle meat undoubtedly made the dehydrated and preserved meat more palatable.

Other Evidence of Spanish shipboard consumption of turtle was found in the Stonewall wreck, a 17th-century site off of Bermuda. Excavators recovered the limb bones

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[229] Pitman 1689, 22.
[230] Dampier 1900, 457.

of sea turtles, which seemed to supplement a shipboard diet heavily reliant on pork.[231] The presence of sea turtle bones on both *Atocha* and the Stonewall Wreck suggests that it may have been more common in Spanish sailors' diet than in Spanish colonists' diets, although the study of more faunal assemblages would more clearly reflect consumption patterns.

4.3.1. Secondary Products

Ship crews consumed not only turtle meat, but also turtle eggs, which at times were plentiful. During the 17th century colonial traveler John Josselyn described sea turtles and their place in the mariner's diet, emphasizing the wholesome and restorative nature of the creature's eggs.[232] The crew of the British 1818-1822 survey of the coastline of Australia is reported to have recovered a thousand eggs in one evening.[233] Henri Joutel, whose journal chronicled the failed French expedition during which *La Belle* sank in 1686, mentioned consuming turtles and using their eggs to concoct a sauce.[234]

While turtle eggs and meat were both frequently consumed by transatlantic seafarers, other turtle products were also occasionally consumed. Turtle blood was, on rare occasions, ingested as a last resort when sailors ran out of freshwater. According to First Lieutenant Philip Saumarez, this occurred on HMS *Centurion* during its famous voyage around the world from 1740 to 1744. While sailing off the Mexican port of Acapulco, *Centurion* lost contact with a small cutter and its crew due to foul weather. The

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[231] Dethlefsen et al. 1977, 315-21.
[232] Josselyn 1865, 30.
[233] King 1825, 9.
[234] Bruseth and Turner 2005, 125.

boat and sailors were found several days later, but not before they had to resort to drinking turtle's blood after running out of water.[235]

Other sources mention the use of turtle fat. Dampier noted that often the fat was boiled into oil, recounting a story of a monstrous green turtle caught by the crew of a man he called Captain Rocky, which rendered eight gallons (30 liters) of oil.[236] He further regaled readers with his admiration for a Captain Davis, who extracted 60 jars of oil from a terrestrial tortoise. Davis's crew then ate the oil with doughboys or ship's biscuit dumplings in lieu of butter.[237] The combined hard biscuit and flavorful, fatty oil was likely a welcome addition to this rather bland fare. Furthermore, as the naturalist Joseph Banks noted when describing his voyage with Captain Cook, the oil was also very nutritious.[238]

4.3.2. Storing Turtle

In Anson's *Centurion* journal, he mentioned that they carried many live green turtles with them to sea and that it was of great benefit to his crew to have a source of fresh meat while voyaging. This fresh meat was indeed very advantageous but begs the question: what did the sailors do with the lumbering beasts, which Anson says weighed 200 pound (91 kg) apiece, while they were waiting for the cleaver?[239] British naval officer Captain Carteret, describes the following scene which occurred during his later voyage around the world between 1766 and 1769:

> "In the evening I landed a few men to turn the turtle that should come on shore during the night, and in the morning I found that they had thus secured no less than

[235] Heaps 1973, 10, 15-6, 163.
[236] Dampier 1900, 132, 393.
[237] Shipman 1962, 37-8; Wilk and Hintlian 2005, 161.
[238] McCalman 2012, 14.
[239] Anson 1749, 34.

Figure 4-5. Turtles on the deck of a schooner. Photo by Florida State Department of Commerce 8 April 1949. Courtesy of the Monroe County Public Library System, item number MM00037574 from http://www.keyslibraries.org accessed March 23, 2020.

Figure 4-6. Unloading turtles at the Key West Bight 1924. Courtesy of the Monroe County Public Library System, item number MM00029448 from http://www.keyslibraries.org accessed March 23, 2020.

> eighteen, from four hundred to six hundred weight each, and these were as many as we could well stow on the deck."[240]

Laying turtles on their backs is a method of stowing that economized space on a ship's deck. Ethnographically, this was a well-known practice among the turtle fishers of Key West, Florida (figures 4-5, 4-6). Twentieth-century photographs show turtles lining the decks of sloops from bulwark to bulwark without a single deck plank visible. The photographs also capture the practice of dowsing the animals occasionally with saltwater as they slowly bleach and bake on deck under the southern sun. Historical records suggest that the only requirement considered necessary to keep turtles alive during voyages was to moisten their heads and eyes to prevent the reptiles from overheating.[241]

Because live sea turtles stored on deck would wash away in a wrecking event, they would be unlikely to show up in the archaeological record. Later historical sources mention the practice of keeping smaller terrestrial tortoises in the hold, which may account for the comparatively greater number of specimens, and more complete examples, of terrestrial species, recovered from shipwrecks.[242] Thus, the amount of sea turtle meat in the average mariner's diet is likely significantly underestimated. This undervaluation is exacerbated by the fact that historical sources suggest that turtle meat was preserved in strips, unlike the bone-in cuts of similarly preserved beef or pork.[243] This means that even if the salted turtle was stored in barrels in the hold of a ship, the meat would not have

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[240] Hawkesworth 1773, 443.
[241] Chapin 1990, 31.
[242] Whitecar 1864, 97.
[243] Pitman 1689, 22.

Table 2. Testudines remains recovered from shipwrecks of the 16th-18th centuries.

Shipwreck Site	Period	Element/Specimen	Scientific Name	Count	Modifications
1554 Spanish wrecks[244]	16th cent.	Carapace/plastron	Cheloniidae	Unspecified	-
Emanuel Point II[245]	16th cent.	UID bone fragment	Cheloniidae	1	-
La Belle[246]	17th cent.	7th Pleural, vertebra, other	*Terrapene ornata*	20	Cut marks 2 specimens
			Terrapene sp.	1	-
		Shell, other	Testudine	8	-
			Large Testudine	1	-
		Peripheral	Emydidae	1	-
Nuestra Señora de Atocha [247]	17th cent.	-	Testudinata	9	-
		Plastron	*Pseudemys scripta*	1	-
		Left percoracoid	*Pseudemys scripta*	1	-
		Plastron	*Geochelone* sp.	1	-
		Plastron, carapace, humerus	*Gemyda* sp.	18	Butchery marks on shell & left humerus
		Limb bones, plastron	*Chelonia mydas*	1	Burned plastron
		Limb bones	*Caretta caretta*	2	-
			Caretta sp.	5	-
			UID turtle	4	-
Stonewall Wreck[248]	17th cent.	Limb bones	Cheloniidae	Unspecified	-
New Old Spaniard[249]	17th cent.	Humerus, carapace	*Geochelone denticulate*	2	-
Readers Point Sloop[250]	18th cent.	Humerus	*Gopherus polyphemus*	1	-

*This is not an exhaustive list, but was compiled from the published data available to the author at time of writing. UID=Unidentified.

[244] Arnold and Weddle 1978, 258, 373.
[245] Shidner 2011, 103.
[246] de France 2017, 750-9; Guiry et al. 2018.
[247] Chapin 1990, 41; UID=Unidentified.
[248] Dethlefsen et al. 1977, 321.
[249] Armitage 1989, 147-51.
[250] Cook 1997, 43.

survived in the archaeological record as well as the dense and stable bone by which salted beef or pork is identified. Table 2 shows the type and number of testudines remains recovered from shipwreck excavations.

4.4. Culture and Functionalism

Anthropological approaches to the analysis of turtle's role in shipboard experiences can help to define the social landscapes of sailors, and to discern agency within larger cultural systems. Applying theories on identity, intersectionality, and community to the historical and archaeological record allows one to explore themes of personhood.[251] Geviller Marín et al explored how interactions between humans and non-humans (and their environment) can further efforts to understand how groups define who or what is or is not a person and concepts of "otherness," and how this is understood through expressions of identity.[252] The remainder of this chapter will examine Testudines consumption and its implications for social hierarchy, and how cultural paradigms intersect to affect daily life in regards to social hierarchy and medicine. Intersectionality is theoretical approach that recognizes that inequalities and identities are "the outcome of intersections of different social locations, power relations and experiences."[253] Examining how humans in the maritime community interacted with sea turtles can bring to the surface more information on how this intersectionality was experienced by mariners.

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[251] Appell-Warren (2014,1) defines personhood as: "The attainment of physiological, psychological and social competence as it is defined by a given culture. The attainment of different levels of personhood is marked throughout the life cycle by rituals, rites of passage and by other recognized markers. The concept of personhood not only includes the external markers decided upon by a culture but includes aspects of the internal, i.e. how the individual experiences his or her own personhood," 125.
[252] Marín et al. 2019.
[253] Hankivsky 2014, 1.

4.4.1. Social Hierarchy and Cultural Capital

Both considerations of utility and contemporary social norms influenced the contexts in which mariners ate sea turtle. Susanne Højlund refers to taste as a social sense.[254] The same can be said of the shipboard consumption of turtle meat. The act of eating is both highly social and highly visible, and as such, it can express identity or be a display of cultural capital. Sociologist Pierre Bourdieu has discussed at length the concept of cultural capital, it being the concept that cultural activities and assets have value that can be exchanged, and this exchange has the potential to purchase social mobility. Different groups or communities place different values on these items of cultural capital.[255] Some of these types of exchanges are visible in the context of turtle meat (or biproduct) consumption.

During the late 17th century to early 18th century, there seem to be antithetical views of turtle meat held by mariners and those outside that community. For example, Sir Hans Sloane reported that sea turtle was only eaten by the poorest in society when he described Jamaica in the 17th century.[256] Yet Richard Ligon, in 1657, mentioned an event wherein crew members caught a green turtle at sea, which ended up as a meal only for the gentlemen and officers of the ship.[257] Naval culture required captains to "keep a table," regularly inviting and entertaining officers or other official visitors.[258] Gifting food and

[254] Højlund 2015, 1.
[255] Bourdieu 1973.
[256] Hollett 2011, 18.
[257] Ligon 1657, 4.
[258] Rodger 2004, 524.

drink purchased symbolic capital.[259] This exchange strengthened the cooperative relationships and reaffirmed the social roles vital to making life and work at sea successful. Fresh sea turtle meat provided an excellent way to accomplish the goals of the captain's table. This paradigm was true of the captain's table at sea or on shore. An example of the latter context was recorded by Captain Francis Goelet, who in 1750 put in at Boston and stayed at a Captain John Wendell's home where Wendell served turtle to forty guests.[260] It is clear from Captain Cook's account of his voyages that British Naval officers regarded sea turtle as a beneficial crew staple, but still held it in high social esteem. This mindset is demonstrated by Cook's lack of cultural relativism in dealing with the *Guugu Yimmithir*, an indigenous group of north Queensland, Australia, when he is genuinely surprised that they did not view turtle meat as 'a dainty,' but was instead a prosaic staple.[261] Along with the salted, dried, stewed or roasted turtle meat served to the general crew, turtle could also be prepared in more elaborate ways that transformed it from something common to a delicacy. Later 19th-century accounts relate that the turtle soup served to seamen gained the reputation of being 'very poor' compared to what was prepared for consumption by higher society.[262]

4.4.2. Sailor's Folk-Medicine

Not only was sea turtle meat a good source of calories, a diversion from hard ship biscuit or salted beef, and for officers a status symbol, but sailors believed sea turtle meat

[259] Toczyski 2007, 15.
[260] Strickland 1972, 53.
[261] McCalman 2012, 15.
[262] Hay 1898, 93.

possessed several beneficial medicinal qualities. During Captain Wallis's voyage around the world in 1766-1768, the crew of HMS *Dolphin* became sick. The response of Wallis was to anchor off the coast of Prince's Island (Panaitan, sometimes called "Princess Island"), between Java and Sumatra, and procure turtle from the indigenous locals.[263]

A long-standing belief in the maritime community was the idea that sea turtle meat prevented scurvy. As early as 1696, the Royal Navy sought approval to add fresh turtle meat three days a week to the diet of sailors in the West Indies in the hopes of lowering the high death tolls on the King's ships.[264] Sir George Rodney wrote a letter to the Admiralty with a similar request in 1774. In his letter, he listed turtle meat as the most effective food against scurvy, urging the victualling of navy ships with it. The logbook of *Centurion* demonstrates a belief in the preventative nature of turtle meat, noting that they fed it to the crew instead of salt meat to stave off any relapses of scurvy.[265] The added benefits, such as lower cost compared to beef and higher crew morale due to fresh meat, were not missed by Rodney in his letter. It must be noted here that fresh meat of any kind does assist (in a small way) in the prevention of scurvy; however, by itself it is not enough to stave off the disease.[266] The Royal Navy became particularly interested in scurvy cures and prevention since it so severely affected ships on lengthy voyages to the Indian Ocean. The publication of James Lind's *Treatise on the Scurvy* further drove the Navy's search

[263] Henry 1773, 113-4.
[264] Fortescue 1904, 179-80.
[265] Heaps 1973, 148.
[266] Convertito 2011, 79-80.

for a solution. While the Navy knew that lemon juice or oranges added to the sailor's diet worked well as a prevention for the disease, ships involved in the West Indies trade often substituted the West Indian sour lime, which is significantly less effective.[267]

In addition to being regarded as a scurvy preventative, turtle meat was at other times also thought to cure yellow fever, dysentery, pox, epilepsy, and jaundice.[268] Maltese medical folklore offers tortoise blood as an effective treatment for both jaundice and epilepsy. Males who had jaundice were to consume the blood of a female turtle, while women were to use that of a male. To cure epilepsy, the sufferer needed to drink the blood immediately following the fit.[269] In a 1799 issue of *The Hiberian Journal*, an article discussed the problems the Royal Navy was having with yellow fever on its ships and proposed a solution. As a cure, the author suggested cooking a small batch of soup made from the mucilaginous part of the turtle and adding a small amount of vinegar. Captain Colnett claimed that he cured his entire crew of yellow fever (save for the ship's carpenter) with this soup and a few sweetmeats.[270] French mariners similarly utilized turtle soup to restore the ill; Lieutenant M. de Rossel, acting captain of the *Recherche*, reported making large turtles into a bouillon for sick crew members in 1793.[271]

Richard Ligon copied down the cure for dysentery, the scourge of West Indies colonists:

> Take the pisle of a green Turtle, which lives in the sea, dry it with a moderate heat, pound it in a morter to powder, and take of this as much as wil lye upon a shilling,

[267] Tickner and Medvei 1958, 44-5.
[268] Josselyn (1865, 30) mentions turtle meat could cure pox.
[269] Ventura 1990, 43.
[270] "Yellow Fever," *The Hibernian Journal* 1 March 1799.
[271] Williams 2013, 193.

> in Beere or the like, Ale or White wine, and in a very short time it will doe the cure.[272]

The consumption of uncontaminated liquids like the beer or wine helped to prevent dehydration in the victims until the infectious disease had run its course, eating turtle genitalia has no documented medicinal benefits that would have improved the health of those suffering dysentery. Among European mariners, sea turtles and their byproducts assumed zootheraputic properties regardless of their actual efficacy. The use of turtle to cure ailments and diseases that afflicted sailors was greatly influenced by social and economic factors, a trend identified in similar animal-based folk medicines examined by Rômulo Romeu da Nóbrega Alves et al.[273] As sea turtles are circumglobal species, they were cheaply and widely available when other medicines or preventatives like lemon juice were not. Turtle products were also easily adopted into the socio-cultural life of sailors because Europe already had a longstanding pharmacological history of using reptiles to cure illness stretching back into antiquity.[274] Most importantly, zootherapy, in the form of turtle byproducts, provided mariners with an ability to exert a form of control over their hazardous environment and uncertain circumstances.

Dampier wrote at length about the differences between green sea turtle found at different locales.[275] This perception of geographical variance made the green turtle ideally suited to serve as a conveyor of contagious magic. This use of food, and food intake to deal with uncertainty, follows the model of contagious magic closely as defined in

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[272] Ligon 1657, 119. In this quote, "pisle," is an archaic form of pizzle, referring to the penis.
[273] Alves et al. 2008, 2043.
[274] Alves et al. 2008, 2042.
[275] Dampier 1900, 129-35.

anthropologist Sir James George Frazer's theory of sympathetic magic.[276] Frazer's idea of contagious magic was that objects, people or animals always remain in contact with their various parts, and those constituent parts will always maintain influence over each other. This idea can be adapted in the case of turtle consumption, where the "whole" is the sea and its "parts" are what lives within its bounds. Mariners felt that consuming something that lived in the sea (in this case turtles) would help them battle the ailments they encountered while sailing on it. The use of sympathetic magic as medicine was not unusual even up through the 17th century. William Salmon wrote *English Physician* in 1693, and it included a salve recipe to heal wounds that the afflicted needed to apply to the blade that had caused the cut.[277] The idea being that the blade had previously come in contact with the wound, and it was still connected to it.

Despite its perceived curative properties, turtle meat was not universally supported as a desirable addition to the seafarer's diet. Some believed, like Captain Woodes Rogers, that its consumption had serious ill-effects. Rogers noted turtle meat's ability to prevent scurvy, but in the same passage, professed his belief that it left his men weakened.[278] In 1766, Richard Falconer described Jamaica, and included aspects of the local diet. Falconer admitted that turtle had an excellent taste, but emphasized that it was the typical diet of slaves and the poor. He went on further to say that strangers who consumed turtle flesh, contracted a bloody flux, which he lists as the number one killer of newcomers to the

[276] Frazer 1920.
[277] Bynum and Nutton 1991, 39.
[278] MacLeish and Krieger 1962, 188, 225-7.

island.[279] Although Falconer may have misunderstood the causes. Sea turtle can have toxic flesh, due to their own diet. Contaminated turtle meat can, in some cases, cause vomiting. Toxins transferred through marine turtle meat include heavy metals, organic compounds such as pesticides, and biotoxins from blue-green algae.[280]

By examining how these groups exploited sea turtle as a food source and a medicinal tool, this study demonstrates how vital sea turtle was for mariners of this period, and identifies the nuances of their role in seafaring culture. Beyond pure functionalism, sea turtle served for sailors as an avenue for the exchange of cultural capital and as a zootheraputic animal whose consumption provided control through contagious magic.

[279] Shipman 1962, 27-8.
[280] Pavlin et al. 2015, 25.

5. THE TURTLERS OF 18TH-CENTURY GRAND CAYMAN

The turtle fishery off the coast of the Cayman Islands was a well-known supplier of meat for mariners involved in the trans-Atlantic trade of the 18th century. Salted and barreled or taken aboard alive, these reptiles played a vital role in shipboard foodways. The Cayman Islands Turtle Bone (CITB) Site (designation GCL 075) has yielded a wealth of archaeological evidence of this activity that dates to the very early 1700s.[281] The faunal assemblage, which includes over 1,900 specimens, and the artifacts found in association with them, provide archaeologists with an opportunity to examine the culture and identity of 18th-century turtlers. Anthropological approaches to this analysis enable the identification of the social landscapes in which these turtlers engaged.

5.1. Site Introduction

The turtles stored in the crawls and sold in the market at Port Royal were supplied by the Cayman Islands and their surrounding waters. While French, Dutch, Spanish, and English mariners stopped to provision and take turtle at the Caymans since the islands' discovery, intensive exploitation of the turtle fishery did not occur until the English claimed them as dependencies in the mid to late 17th century.[282]

Richard Taylor's 1681 chronicle of Jamaica discussed the English sloops that ventured from Jamaica to the Caymans every February to catch turtles for the crawls at Port Royal's Chocolatahole. Turning turtle at night or fishing with nets, the turtlers who came to the Caymans took live turtle to Port Royal, as well as processed and salted turtle

[281] CINM 1998-2000a, b, c; Leshikar-Denton 1998; Leshikar-Denton and Adams 1998; Mani 1998a, b.
[282] Draper 2017, 769; Smith 2001.

at their temporary fishing encampments.[283] The CITB Site provides an opportunity to examine just such an encampment. Currently the oldest known terrestrial archaeological site on Grand Cayman, the CITB Site dates to the very early 18th century and is located on the north side of the island in the Rum Point area (figure 5-1).

The archaeological site lies on the Atlantic side of Rum Point.[284] On the opposite side is the North Sound, a body of water that measures about 90 square kilometers. This lagoon, the largest shallow water body of the island with a maximum depth of about 5 meters, is lined today with Mangrove swamps around the majority of its periphery. An active linear reef leads into a sand sheet that extends into the lagoon from Rum Point. Closer to the lagoon's interior, the sediment transitions to one of sandy mud, which is home to saltwater grasses such as *Thalassia testudinum*, or turtle grass, making the area attractive to sea turtles for feeding, and the sandy beaches of Rum Point a favorable nesting environment.[285] At the end of the 17th century, these factors would have also made the area attractive to turtlers from Jamaica.

The CITB Site was discovered in 1997 by Police Constable Hank Powell, who noticed ceramic sherds on a parcel of land owned by Iguana Reef Limited, and who alerted the National Museum.[286] The site was evaluated by archaeologist Dr. Margaret Leshikar-Denton who identified weathered turtle bone in association with artifacts dating to the early 1700s, before the first permanent settlements on Grand Cayman, realizing the

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[283] Buisseret 2010, 153.
[284] CINM 1998-2000a
[285] Bunt and Davies 1994, 90, 94-6, 232, 511.
[286] CINM 1998-2000b; Mani 1998a, b; Leshikar-Denton 1998; Leshikar-Denton and Adams 1998.

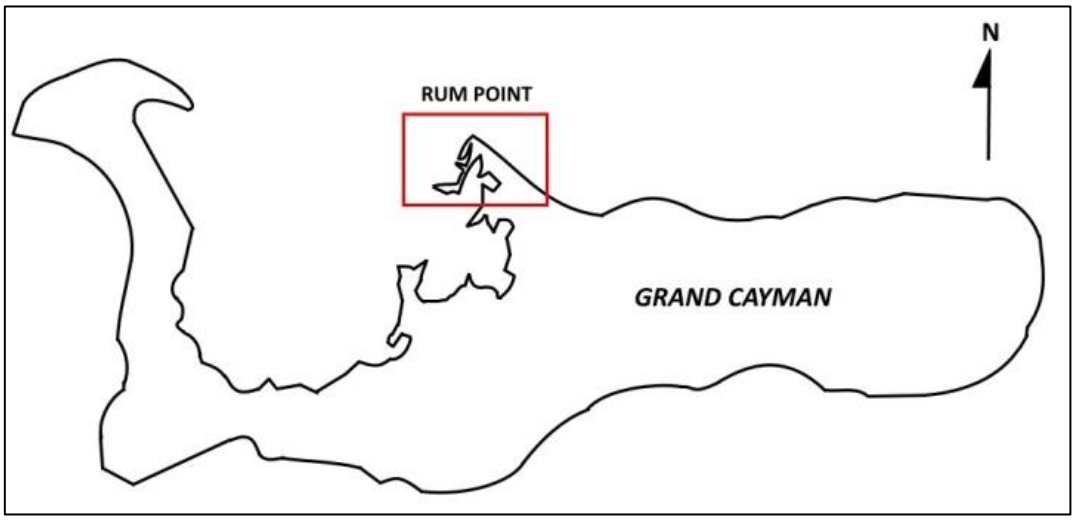

Figure 5-1. Grand Cayman & Rum Point map. Map by the author.

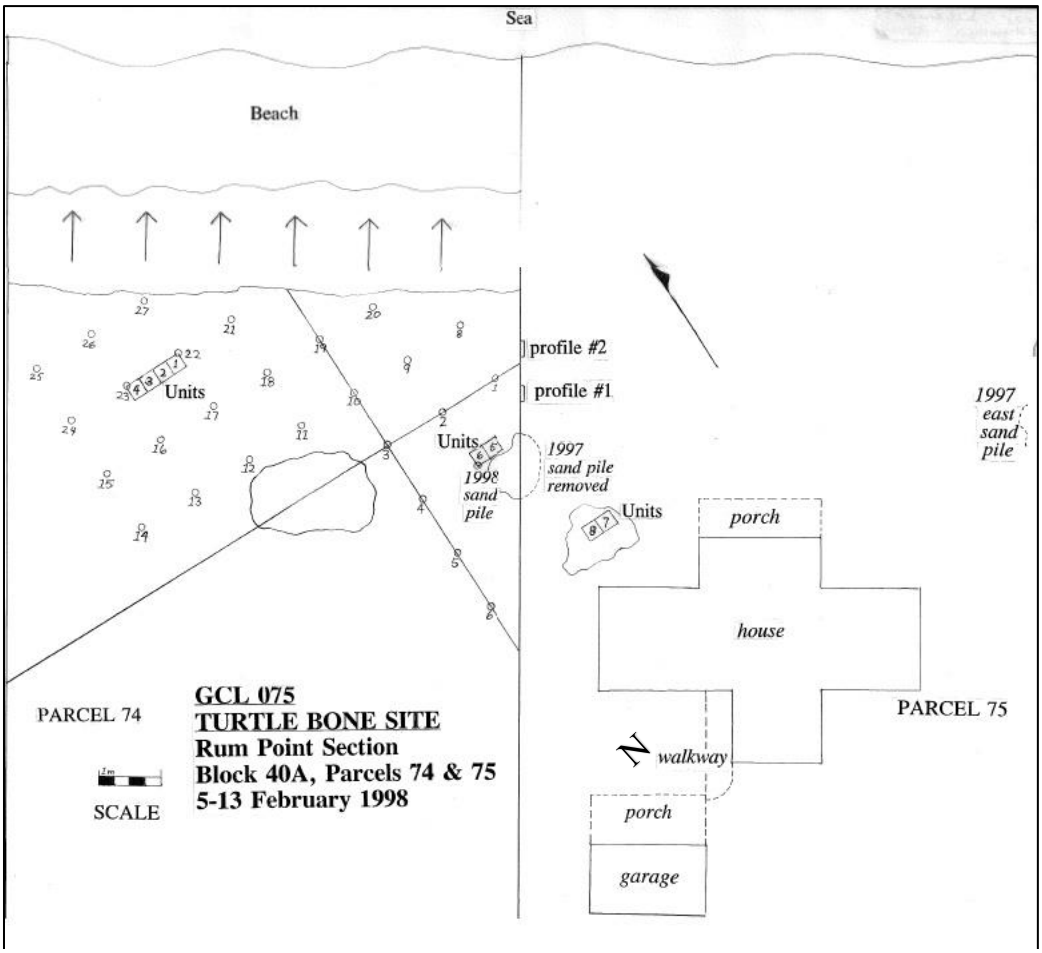

Figure 5-2. GCL 075 CITB site map Grand Cayman. Courtesy of the Cayman Islands National Museum, map by Leshikar-Denton and Adams 1998. Reprinted with permission from Leshikar-Denton and Adams 1998.

significance of the site. Along with volunteers, she subsequently excavated a portion of the site (units 1-8, and shovel test pits) in 1998 under the auspices of the Cayman Islands National Museum (CINM). Between 1997 and 1998 the site was disturbed by development activity which resulted in the piling up of and containing cultural material into two main sand piles located on the east and west sides of parcel 75 (figure 5-2).[287] While this caused the loss of a significant amount of archaeological context information on parcel 75 (east parcel of land), we can still glean much from the finds recovered during the controlled excavation on parcel 74 (west parcel of land). In 2000 the group excavated two additional units (9 & 10) at the site. Initial analysis of the artifacts by the excavators suggested that the site was a temporary fishing camp dating to about 1700.[288] The cultural material from the site, including the turtle bones, is currently housed in the CINM, where I analyzed and photographed the faunal assemblage in the summer of 2017.

5.1.1. Artifact Assemblage

Site inventories generated by the CINM team and cited in the contemporary publications, show that the beach site yielded six main categories of artifacts: ceramics/cookery, organic remains (primarily food debris such as marine shells and bone, with the majority belonging to marine turtle), personal items (such as buttons and pipe fragments), munitions, tools, and architectural elements (bricks, nails, and daub).[289] In

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[287] CINM 1998-2000b; Leshikar-Denton and Adams 1998; M. Leshikar-Denton, personal communication with the author, 2017.
[288] CINM 1998-2000b; Leshikar-Denton 1998; Leshikar-Denton and Adams 1998.
[289] CINM 1998-2000c; Mani 1998a, b; Leshikar-Denton 1998, Leshikar-Denton and Adams 1998. Although a category is termed "architectural elements" it should be noted that the author is not suggesting that there were permanent or semi-permanent structures at the site, the category term was chosen by South (2002) in order to remain consistent with other scholarship in the field.

addition to these six categories, items such as ballast stone, miscellaneous metal fragments, and flint were recovered (see Appendix C, table 1 for a full list of artifact types and distribution, compiled from original site inventories and field notes).[290] The artifact profiles for the site are as follows in table 3:

Table 3. Artifact profile for the CITB site, Grand Cayman.

Group	Count	%
Kitchen (Ceramics/Cookery)	217	9.21
Organic Remains	1982	84.13
Personal Items	53	2.25
Munitions	7	0.30
Activities (Tools)	8	0.34
Architectural	59	2.50
Miscellaneous	30	1.27
	2356	100.00

To make the data more viable for cross-cultural comparison, I removed the organic remains from the above table, and separated the personal items into the categories of "tobacco pipes" and "clothing," to generate the profiles seen in table 4.

The resulting profiles have much in common with Stanley South's later Frontier Pattern, found at British and French sites from the 1750s-1760s, with the exception of a lower percentage of architectural elements, but higher percentage of kitchen artifacts at the CITB Site.[291] South's Frontier Pattern was derived from sampling the sites Spalding's Lower Store, Florida, Fort Ligonier, Pennsylvania, and Fort Prince George, South

[290] CINM 1998-2000c.
[291] South 2002, 142-65.

**Table 4. Artifact profile for the CITB site, Grand Cayman with organic remains removed. ***FP stands for Frontier Pattern.

	Turtle Bone Site		FP* Range[292]
Group	**Count**	**%**	**%**
Kitchen (ceramics/cookery)	217	58.0	22.7-34.5
Architectural	59	15.8	43.0-57.5
Munitions	7	1.8	1.4-8.4
Clothing	1	0.3	0.3-3.8
Tobacco Pipes	52	13.9	1.9-14.0
Activities (Tools)	8	2.2	0.7-6.4
Miscellaneous	30	8.0	-
	374	100.00	

Carolina, to determining frequency variations in artifact groups.[293] While the sites used by South are fort or trading post sites, the pattern still shows a strong cultural continuity between the European frontier at large and the individuals involved in turtling at Grand Cayman. The relatively low proportion of architectural elements at the CITB Site is likely explained by the seasonal and transitory nature of a turtle fishing encampment and the milder climate of the Cayman Islands.

The largest category of artifacts was that of kitchenware, with both ceramics and a small amount of bottle glass. Most diagnostically, these included Rhenish gray stoneware and several sherds of delftware (Figure5-3).[294] Excavators also found and identified onion bottle fragments and some Spanish olive jar sherds of the middle style. In addition to the ceramics, other diagnostic finds included an S-type decorative flintlock side plate, a wedge type gunflint for a musket, and tobacco pipe fragments with stem

[292] South 1978, 230.
[293] South 1978, 229-30.
[294] CINM 1998-2000b.

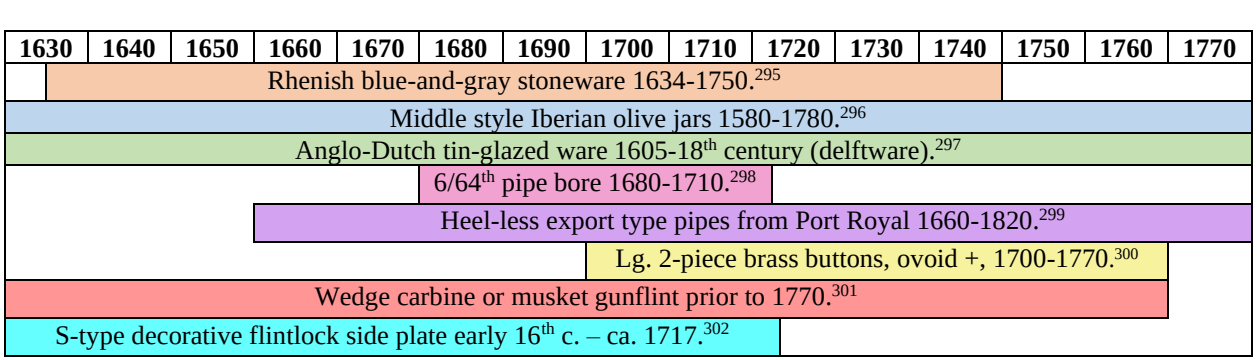

Figure 5-3. Artifact chronology and diagnostic specimens. (A) Rhenish Stoneware, 103.2; (B) Tobacco Pipes, 103.5; (C) Tin Glazed Delftware, 104.12; (D) S-type flintlock side plate, 104.27; (E) French or English wedge gunflint, Carbine/Musket 103.18. Photographs by C. Fletcher and author.

[295] McMillan et al. 2014, 161
[296] Donachie 2001, 47-8.
[297] Donachie 2001, 64-8.
[298] McMillan 2016; Harrington 1954, 14; Pipe stems were measured by the original excavators, Leshikar-Denton and Adams 1998.
[299] Fox 1998, 69
[300] Large 2-piece cast brass buttons with ovoid cross sections, Hinks 1988, 56.
[301] Lotbiniere 1984; Skertchly 1879, 36; Jeakle 1992, 24-6.
[302] Borgens 2014, 71-8.

diameters that fit into a typological chronology. This assemblage suggests an early 18th-century date for the CITB Site, making it nearly contemporary with the 1692 tavern site at Port Royal.[303]

The historical record demonstrates that Port Royal was the base for a large number of turtlers who fished off the Caymans, and it is therefore pertinent to compare its assemblage of artifacts to those recovered from this roughly contemporaneous site. A large collection of ceramics excavated from Building 4/5 at Port Royal, and analyzed by Madeleine Donachie in 2001, indicated the standards of living experienced by the building's occupants.[304] One-third of the ceramics from Building 4/5 were coarse ware, while over half of the CITB Site ceramic assemblage was comprised of this type. Tin-glazed enamelware, which made up the majority of the Building 4/5 assemblage, was less than ten percent of the ceramic sherds found at the CITB Site. Donachie concluded that the inhabitants of Building 4/5 enjoyed a relatively comfortable lifestyle for the period based on both the ceramic assemblage and associated luxury artifacts. However, she noted that the presence of high-quality tin-glazed ceramics and stoneware was less an indicator of affluence, and more of a side effect of the large influx of European goods that Port Royal received as a hub of trans-oceanic trade.[305] This helps to explain the pattern seen at the CITB Site. At first glance, the association of a large number of lower status earthenware seems out of place with the few higher-quality item finds like the Rhenish

[303] See figure 5-3 for artifact chronology and diagnostic examples. Diagnostic artifacts identified by CINM 1998-2000b.
[304] Donachie 2001.
[305] Donachie 2001, 95, 172-173, 201.

gray stoneware and the tin-glazed delftware. In reality, this is relatively consistent with patterns identified at Port Royal, the likely origin point for the individuals who established the CITB Site encampment. The large number of coarse earthenware sherds paired with the older style side plate decoration imply a group of lower socioeconomic status. The coarse earthenware was also likely a pragmatic choice, as it was of lower value and thus, less of a personal and financial loss if broken in the beach camp environment. The delftware and stoneware brought along could more accurately be categorized as a personal possession, rather than purely kitchenware, or at the very least, hand-me-down or pieces with defects that warranted taking it along while turtling.

Also supporting the theory of a turtle fishing encampment is the similarity of the assemblage to those found among 18th-century northern English fishing stations. Alaric Faulkner studied French and English fishing stations, both temporary and permanent, along the North American coast. Sites like Damariscove Island in Maine demonstrate a striking continuity with the CITB Site, with similar profiles of earthenwares, stonewares, and tobacco pipes.[306]

Finally, the site has an absence of *sgraffito*-decorated slipwares, these were manufactured at Bideford and Barnstaple, and traded in substantial numbers with the Caribbean and North American colonies during the 17th century. There is also a notable lack of Staffordshire wares, which are frequent finds in the Caribbean and North American colonial sites by the end of the 17th century, although a few of the small salt-glazed sherds

[306] Faulkner 1985.

may belong to this group. [307]

5.2. Faunal Assemblage

Although the number of identified specimens (NISP) for the CITB site was 1,980, the minimum number of individuals (MNI) was relatively low at only 23.[308] The previously mentioned development activity pulverized the assemblage, generating many secondary breakages without recognizable mends with the exception of very few elements. Despite this, I identified a total of 17 distinct taxa groups, although only three groups were identifiable to species. The below graph (figure 5-4) shows the relative proportions of taxa present at the site using NISP. The individuals who initially deposited the faunal assemblage in the 18th century subsisted on both livestock and local fauna during the fishing season. Split bovid and artiodactyla vertebra indicative of salted meat were present along with bones that are likely chicken. In addition, one Atlantic cod bone is present, probably also carried to the site as a salted provision.[309]

5.2.1. Cheloniidae

The majority of the assemblage belonged to large individuals of the Testudines order, with over two-thirds of specimens identifiable as Cheloniidae, or sea turtle. The MNI for the Cheloniid group was 16, with 10 of those from the species *Chelonia mydas* (green sea turtle). For sea turtle, a useful linear relationship exists between the humerus and straight carapace length (SCL). This means that a formula can be used to determine

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[307] Barker and Majewski 2006, 213.
[308] See Appendix C for tables of the faunal assemblage quantitative data.
[309] For further discussion of results of the analysis of the assemblage as a whole, see Appendix C.

the size of some individuals at the CITB Site.[310] Using this formula generated estimated

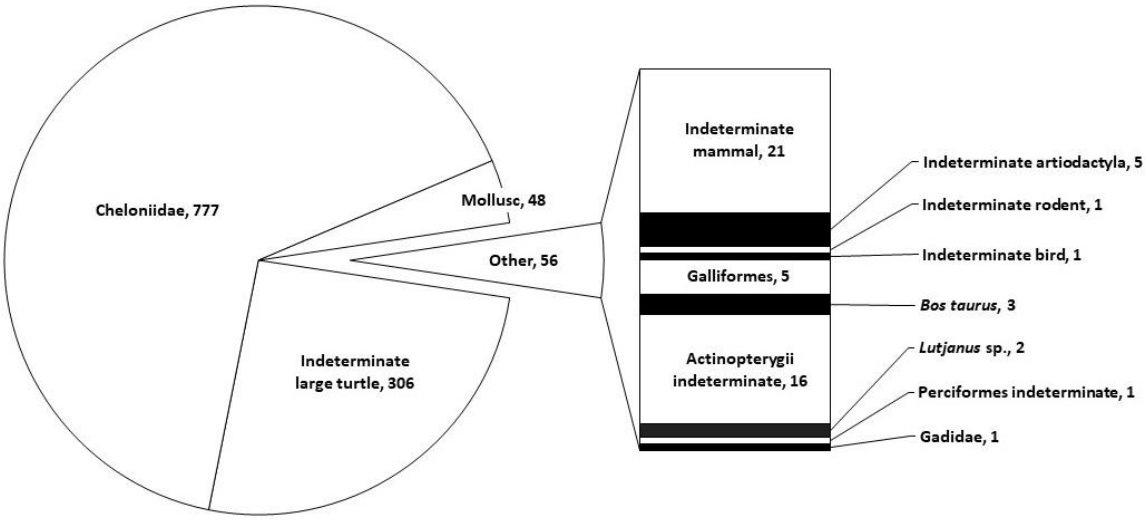

Figure 5-4. Taxa abundance using NISP. Chelonia mydas is included in the Cheloniidae group. Intrusive specimen not included.

SCLs that ranged between 85 and 110 cm. With a mean SCL of 85.5 cm, these individuals were on the small side for nesting green turtles, which tend to average 101-110 cm SCL for egg-laying females.[311] The skew toward smaller animals suggests that during their habitation and turtling activity at the site, the fishers at the CITB site consumed the smaller, less desirable turtles which did not receive premium prices at the Port Royal market. This interpretation is supported by both the MNI and the lack of economy when processing the carcasses. The turtle specimens have few cut marks, showing that

[310] The following equation can be used to back-calculate SCL from the diameter of the humerus diaphysis, where Y=SCL in cm and X=humerus diameter in mm: Y=0.643 + 2.326X, from Zug et al. 2002, 119
[311] Van de Merwe et al. 2010, 269-70.

individuals consuming the meat were unconcerned with stripping the bones as cleanly as possible; with such abundant prey, it was unnecessary.

The evidence of carcass processing is consistent with immediate meat consumption, rather than for the salting and barreling of turtle meat. According to the 1687 Taylor manuscript, turtles being salted would be quartered.[312] If this were occurring at the CITB Site, archaeologically, one would expect a distribution of faunal elements where like elements were grouped in different areas of the site. English fishing stations of this period had specific zones of activity associated with the salting of fish, and that does not seem to be present at the CITB Site.[313] A temporary crawl was likely constructed just offshore to corral the animals until the season had concluded, or the turtlers procured a large enough catch to justify a return to Jamaica.

Many of the bones exhibit breaks that likely occurred after deposition, and after the elements had become desiccated. The breaks have significant weathering, indicating that they occurred prior to the modern landscaping disturbance of the site. The pattern suggests that turtle carcasses were disposed of in a pit and covered with sediment. After the bones dried and became friable due to erosion by surface water and inclement weather, the pile of carcasses collapsed, resulting in secondary breakages long after the initial deposition.

5.2.2. Turtle the "West Indies Way": Identity, Agency, and Intersectionality

The turtle, being consumed by the fishers at the CITB Site, was not being prepared,

[312] Buisseret 2010, 153.
[313] Faulkner 1985.

stewed, and eaten in the fashion observed at Port Royal. Instead, the turtle was barbequed, eaten the buccaneer way. As previously mentioned, in 1689 Henry Pitman described privateers roasting turtle in the shell. According to Pitman two forked sticks were used to hold up the carapace and plastron halves over a large fire to cook the meat inside. [314]

The CITB site yielded 41 burned turtle bone fragments which came primarily from units 1-4, associated with a small coral cobble hearth.[315] Other than two indeterminate fragments, these were the only specimens that showed burning in the entire assemblage. Most were fragments from either the plastron or carapace, and they exhibited uneven discoloration from burning, a pattern congruent with Pitman's report of roasting the meat in the shells.

It is important to note that while nearly all the burned fragments were carapace or plastron, the majority of these elements recovered were not burned at all. This may suggest that roasting turtle in the half shell was only done occasionally and was not a standard cooking method. There may be a celebratory nature to roasting turtle in the half shell, Pitman wrote that it was done "when we designed a Festival."[316] Jean-Baptiste Labat, a French missionary in late 17th-century Martinique recounted a similar cultural context when he was invited to dinner by an affluent parishioner where turtle was served. The process in this Martinique kitchen did not vary much from Pitman's description. The turtle was butchered in such a way as to leave the meat and fat adhering to the plastron

[314] Pitman 1689, 22.
[315] CINM 1998-2000a, b, c; Mani 1998a, b; Leshikar-Denton 1998, Leshikar-Denton and Adams 1998.
[316] Pitman 1689, 22.

and carapace, and these pieces were roasted whole in either an oven or over an open fire.[317] Again the work of Susanne Højlund is particularly applicable here, where a particular method of preparation goes beyond taste preference but fulfills a specific cultural role.[318] In the case of Jean-Baptiste Labat, it functioned as a display of social capital, from an agency model standpoint, wherein ambitious individuals used feasting to enhance their sociopolitical status. In this sense turtle feasting was imbued with socially standardized and agreed-upon meaning. It simultaneously served to mark important occasions. From a historical-processual approach, eating turtle barbequed in this manner, the "West Indies Way," was an experiential process.[319] Both the experiences of Labat and Pitman demonstrate the ideology embedded in eating turtle in a certain way. At the CITB Site archaeologists found many more unburned than burned plastron and carapace fragments, suggesting that this same experiential process and culturally agreed-upon ideology was present at the site. Before the 1980s, theoretical approaches to the archaeological study of British Colonial subsistence assumed a European "insulating" effect, whereby colonists in the New World simply transplanted the trappings and foods of their continental European antecedents. At the CITB site, the turtlers are consuming locally available foods such as turtle, snapper, and oysters, even though the turtlers could have potentially brought with them all of the preserved foods required to keep body and soul together during a

[317] Toczyski 2010, 62.
[318] Højlund 2015, 1
[319] See Emerson and Pauketat (2008) for an in-depth explanation of this historical-processual approach.

turtling season. What Elizabeth Reitz, Nicholas Honerkamp, and the assemblage at the Turtle Bone Site suggest is that instead of an "insulating" effect, there was a heavy reliance on wild resources, and an adaptation of English culture as a result.[320]

An alternative interpretation of the burned carapace fragments may be offered by a much later image engraved by John William. The 1855 image (figure 5-5) shows the "shelling" of turtles in Miskitu territory through the use of heat, specifically, a small controlled fire applied to the center of the carapace. This could explain both the low frequency of burned specimens as well as the absence of scutes at the CITB site. Due to the green-yellow color predominant in the scutes of mature green sea turtles, and the fact that the thinner scutes make them more difficult to work than those of hawksbill, green

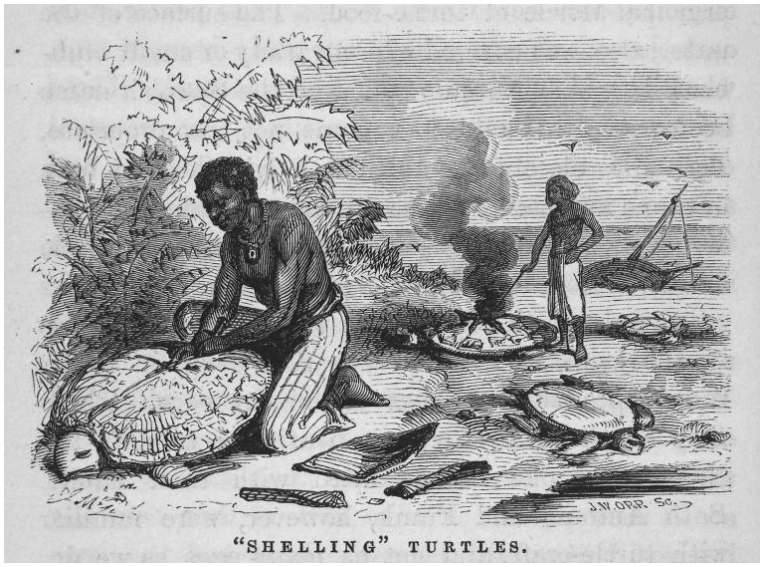

Figure 5-5. "Shelling" Turtles. By John William 1855, from *Waikna or, adventures on the Mosquito shore*. New York Public Library item no. b12656939 from https://digitalcollections.nypl.org/items/510d47da-7395-a3d9-e040-e00a18064a99 accessed June 17, 2020. Reprinted from Schomburg Center for Research in Black Culture, Manuscripts, Archives and Rare Books Division 1855.

[320] Reitz and Honerkamp 1983, 4.

turtle scutes have not traditionally been used for ornamental material.[321] Young green turtles do exhibit a more mahogany brown shell which has been identified in the ornamental inlays of some 17th- to 18th-century "Boulle" furniture.[322] So, while harvesting green sea turtle scutes does not appear to be common, it may have occurred at the CITB site and future work using spectroscopy to study ornamental tortoiseshell material would be valuable in determining if counterfeit trade occurred (and its frequency), with fishers attempting to pass off the scutes as hawksbill.

5.3. Mariner Foodways and Ethnoarchaeology

Archaeologists have identified very few turtling camps or turtle crawls. While researchers have suggested methods for finding these sites, there is a shortage of comparative data.[323] Ethnoarchaeology has the potential to fill in this lacuna, and to identify assemblage patterns associated with turtling.

With the outlawing of turtle fishing by many countries in the latter half of the 20th century, it is impossible for an anthropologist to observe the commercial catch of sea turtle today. Yet, documentation of these activities and work sites from the 1960s does exist. Housed in the UC San Diego Library's digital collections, photographs taken by Howard E. Gulick in 1960-61 show a turtle fishing camp constructed on the beaches of La Laguna and Bahia Los Angeles, Baja California (figures 5-6 and 5-7).[324]

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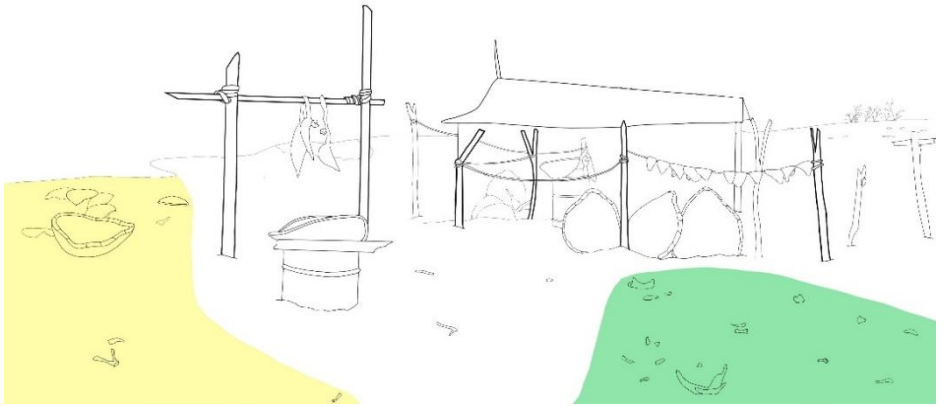
[321] Hainschwang and Leggio 2006, 38-9.
[322] Hainschwang and Leggio 2006, 39.
[323] Bentley (2016) discusses survey methods for identification of turtle crawls at St. George's Caye, Belize.
[324] From the Howard E. Gulick Papers. MSS 91. Special Collections and Archives, UC San Diego. https://library.ucsd.edu/dc/collection/bb9284741j. Accessed July 17, 2018.

Figure 5-6. Baja California Turtle Camp. (Above) Bahia Los Angeles turtle pen (1960), (Below) turtle camp on Laguna San Ignacio (1961). Photos by H. Gulick 1960/61, Howard E. Gulick Papers, Special Collections & Archives, UC San Diego. Reprinted with permission from Gulick 2016a, Gulick 2016b, courtesy of the UC San Diego Library.

Figure 5-7. La Laguna, turtle camp on Laguna San Ignacio. Photo by H. Gulick 1961. Howard E. Gulick Papers, Special Collections & Archives, UC San Diego. Below Right: Diagram of fishing camp by author, yellow designates areas of whole carapace and large element disposal, green designates cranial, pelvic, and small element disposal, including some carapace fragments. Reprinted with permission from Gulick 2016c courtesy of the UC San Diego Library.



Future research could involve the collection of oral history from individuals with memories of these sites and the activities that occurred there. Coupling this with an archaeological excavation of one or both sites could be used to collect faunal assemblage data to help to interpret the patterns seen at historical sites such as the CITB Site. The transient nature of beach sites often makes identifying the prior human activities difficult. Understanding the social nature of turtling sites would likely be facilitated by the comparison with 20th-century sites and potential ethnographic data. Studying butchery marks would also be beneficial for comparative purposes. It is possible to offer some visual comparisons between the 1960s sites in the photographs with the CITB site data. In one of the images above (Figure 5-6), a scattering of small skeletal elements appears at the right periphery of where the turtle carcass processing was occurring. Larger elements like scapulas and coracoids appear to be piled along with some smaller carapaces on the beach in the left side of the photograph, closer to the location where butchery of the carcass occurred. Larger carapaces appear next to a temporary building, next to lines used to dry meat. The processing method seems to remove both fore fins as one continuous piece, held together by a thick band of skin, after the fins were disarticulated at the humeral head. The fins were then slung utilizing this skin band over an "H" shape rack constructed with "Y" shaped branch poles and rope. Unfortunately, without quantitative data to assess the actual distribution of elements, comparisons with the CITB Site are difficult at this time.

Ethnoarchaeology, as a method for understanding the past, has received intense criticism from some quarters.[325] Other scholars such as Lyons and David consider it a useful tool for contextualizing other sites, and also for addressing researcher bias and producing works that are relevant to stakeholder communities.[326] Oral histories and excavations of the Baja California turtle fishing camps, presuming their remains survive, would provide valuable data for geospatial analysis, butchery pattern analysis, and more. The archaeological patterns identified in such a project would be useful in identifying other historic turtle fishing sites.[327]

[325] Gosselain (2016) claims ethnoarchaeology can "go to hell" in his article.
[326] Lyons and David 2016, 118-20.
[327] Beyond the research potential for answering relevant questions in foodways archaeology, professional organizations like the Society of Historical Archaeology (SHA) have explicitly stated ethics principles that call for engaging citizens and public education. The ethnoarchaeological project proposed above would present an opportunity to involve local communities in their cultural legacies and present opportunities for local collaboration for site management, yet another tenet of SHA's ethics principles. Overall, this future work has the potential to add to our knowledge of mariner foodways while concurrently achieving many of the goals set forth by professional organizations. The SHA's ethics statement was accessed October 12, 2019 from https://sha.org/about-us/ethics-statement/.

6. THE TURTLEIZATION OF EUROPE AND THE COLONIES

By the beginning of the 18th century, the green sea turtle of the West Indies began to make its way from the sailor's soup pot to the epicure's table. Turtle had long been a readily available and useful food resource for the European colonial and maritime communities, but at this time English politicians and gentry began importing live sea turtles to be dressed for social club dinners. Eaten as steak, soup, and cutlet, the delicacy of turtle became an excellent vehicle to demonstrate wealth and prestige in English society.[328] The effort and expense required to obtain and serve the animals could procure honorary memberships to elite clubs, political favors, and advancement of social status for turtle feast hosts. Ideologically, it was an ideal food for a colonial power: consumption of the exotic symbolically asserted English dominance over the foreign.[329] The West Indies sea turtle was no exception to this cultural phenomenon.

This chapter examines how sea turtle consumption in Britain during the 18th century carried connotations of elegance and prestige while the consumption of turtles was viewed in the American colonies in a much different light. Sea turtle as a commodity became a barometer of colonial and British sentiments within the context of the American Revolutionary War. Due to economic and cultural shifts beginning in the early to mid-18th century, both commodities and manufactured goods took on symbolic functions and prominent roles in political rhetoric.[330] Historian Timothy Breen examines this

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[328] Timbs 1872, 56-65.
[329] Plumb 2010, 80.
[330] "Commodities" in this chapter will be used to refer to a raw material or primary unprocessed product such as fish, turtles, tobacco etc.

phenomenon.[331] Social emulation by colonists led to high demand for British manufactured goods—elaborate tea services used sugar tongs, tea kettles, and the proper tableware. At the same time, newspaper advertisements no longer hawked generic rugs or gloves, but now Turkish and Persian carpets and men's dog skin gloves.[332] These distinctions were necessary as manufactured goods became a way for Americans to demonstrate prestige. It created a common language of consumerism and cultural uniformity in a previously disparate collection of colonies. As a result of the dramatic increase in the importance of British goods in colonial culture, their consumption quickly became politicized, Breen notes:

> As early as 1765 many colonists had begun to realize that patterns of consumption provided them with an effective language of political protest. In that sense Americans discovered political ideology through a discussion of the meaning of goods.[333]

The use or rejection of these goods and commodities, such as tableware or tea, was an unavoidable political statement that every household was forced to make, and one that was very visible to their community.[334]

Alongside this new definition of consumerism in the colonies, across the Atlantic, Britain's consumption of New World goods also played a significant social and cultural role. The ideological connection between Britain and its consumption of the foreign or exotic was an expression of imperial control. This relationship was alluded to by many

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[331] Breen 1988.
[332] Breen 1988, 80-83.
[333] Breen 1988, 76.
[334] Breen 1988, 77.

cookbooks of the period, such as *The British Housewife: Or, the Cook, Housekeeper's and Gardiner's Companion* by Martha Bradley, which included short imperial histories of certain ingredients and foods after instructing the reader on how to prepare them.[335] Foods from foreign lands became symbols of power and wealth firmly associated with their places of origin and was an expression of the political relationship between imperial Britain and the regions it controlled.[336] Other historians such as Uma Narayan have examined later examples of "eating the empire," where exotic commodities became a representation of imperial dominance, which was experienced daily by British households.[337]

This chapter situates sea turtle consumption within the context of Breen's Consumer Revolution alongside other gastronomic expressions of imperial dominance. The status of sea turtle as a prestige food coupled with its trans-Atlantic connection, led to it becoming a literary device in political language frequently used by both the British and the colonists. This progression from an expression of social prestige to political symbol was the direct result of the way in which the animal was initially acquired, treated, and consumed by British society. Conspicuous consumption of sea turtle paired with the turtle feasts of the British political elite further fueled discontent in colonists newly hypersensitive to the social and political connotations of these goods and commodities. This discontent was expressed first in newspapers of the third quarter of the 18th century

[335] Brickham 2008, 106.
[336] Brickham 2008, 94-106.
[337] Narayan 1995.

in the colonies, and then by the start of the Revolutionary War in acts of civil disobedience where sea turtles served as symbols of American rebellion.

To accomplish the above-described analysis, I surveyed 29 American and 20 British newspapers and contextualized the results with a variety of primary documents.[338] Archaeological studies of urban sites from the late 18th century provide data on faunal assemblages that add greater depth to this multifaceted issue. Both abundance data and marks of butchery processes are invaluable to understanding the politically charged gastronomic environment surrounding sea turtles.

6.1. Consuming the Empire and Social Prestige in the First Half of the 18th Century

The *London Evening Post* began to run news items mentioning sloops sent turtling in 1730. By the 1760s an extensive and speedy trade was well established in order to supply the upper echelons of society with the exotic delicacy.[339] Announcements of turtle feasts given by gentry and politicians in London begin to appear in newspapers both in England and the American Colonies during the mid-18th century. Almost all of them mention the elegance of the meal. The royal family appeared to be particularly fond of these types of engagements.[340] By 1764, turtle fisheries were established off the coast of Florida in addition to the long-used fisheries located at the Cayman Islands and Jamaica. English epicures particularly prized the flavorful fat of the green turtle for soup, and the

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[338] See Appendix D for a list of periodicals consulted.
[339] "Ship News," *London Evening Post* 27-30 June 1730 mentions two English ships and a French schooner that were catching turtle; Adam Fitz-Adam (1755, 739) alludes to the large number of West Indies sea turtle imported to London in an essay on the improvements of the modern kitchen, Fitz-Adam.
[340] In the 1760s, the Princess Dowager of Wales, Augusta gave turtle dinners for the royal family, examples of typical announcements are in "London," *London Evening Post* 8 July 1766, "London," *London Evening Post* 2-5 August 1766, and "London," *The Gazetteer* 28 July 1766.

West Indies provided a continual supply of the valuable animal.[341]

Beyond providing their peers with an exotic and flavorful dish, hosts of turtle feasts gained social prestige due to the significant expenditure of resources it took to bring a live turtle back to England. While turtle was sold as barreled soup or salted meat in the West Indies, turtles consumed in England by elites were butchered and dressed at the site where they would be served.[342] Hosts commissioned mariners to bring back turtles from the West Indies, with their ownership marked by their initials carved into the animal's shell.[343] Not all turtles made it to their intended destination, however. An animal intended for Andrew Mitchell Esqr. died on board the ship just as it was entering the channel. Yet, even when the turtle did not make it to the intended dinner plate, the donation was remarked upon in the minutes of the Royal Society Club, which was the creature's intended destination.[344] Dinner clubs like these treated the dressing and consumption of turtle with great fanfare, and often honorary membership was conferred upon the donors.[345] Some ship captains used this mechanism to improve their social standing.[346]

Turtle feasts or dinners were elaborate affairs given by politicians, merchants, lords, and royalty. Aldermen, elected members of municipal councils, garnered favor

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[341] Witzel 1994, 8-9.
[342] William Brayne in 1657 and Thomas Gage mention ships taking on salted turtle or turtle broth. Sainsbury 1880, 119, 337; Gage 1985, 26; Timbs 1872, 61.
[343] This practice is attested to in the *New-York Gazette* 13 October 1761 in which a reward was offered for the return of a turtle marked with a C W on its back.
[344] Geikie 1917, 39.
[345] Timbs 1872, 61.
[346] Mr. Town writes a notice in 1755 referring to an unnamed captain involved in West Indies trade who was conferred with an honorary membership in the London Dining Club after he agreed to bring a cargo of sea turtle for the club each time he landed in London. Town 1755.

among other aldermen or men of the Common Council.[347] In 1764 a West Indies merchant gave a turtle to the Duke of Cumberland, an influential advisor to King George III, likely in an attempt to garner favor due to the recent passing of The Sugar Act.[348] Among gentry, turtle feasts at family dinners or given in celebration of births was a symbol of social status and prestige.[349] Dining clubs, full of England's intellectual and political elite, served turtle for dinners, events which became centers of political negotiation.[350]

The status of the turtle as a luxury food permeated all levels of British society. Cookbooks in the 1750s such as the *Complete Housewife's Companion*, the *Young Woman's Best Companion*, and the *House-Keeper's Pocket-Book,* began listing recipes and turtle dressing instructions among their enticements in publication notices, despite the fact that dressing a turtle was a task too complex for any but the most well-equipped household.[351] In her book, *The Art of Cookery, Made Plain and Easy*, Hannah Glasse described dressing sea turtle in the "West Indies Way":

> Take a turtle out of water the night before you intend to dress it, and lay it on its back, in the morning cut its throat or head off, and let it bleed well; then cut off the fins, scald, scale and trim them with the head, then raise the callepy (which is the belly or under-shell) clean off, leaving to it as much meat as you conveniently can;

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[347] "London," *London Evening Post* 25 July 1752 announces a gift of a turtle being given by William Beckford, alderman of Billingsgate Ward to the deputy and Common Council men of his ward. Beckford again gifts turtle a year later, this time to the Burgesses and Freemen of Bedford, "London," *London Evening Post* 6 September 1753.
[348] "London," *London Evening Post* 7 July 1764.
[349] "Guildford, Sept. 5," *The London Chronicle* 8 September 1763; "London," *The Gazetteer* 20 September 1765; "London," *The Public Advertiser* 31 July 1754; In "London," *London Evening Post* 2-5 August 1766, Princess Dowager of Wales gives royal family turtle dinner. "London," *London Evening Post* 9-11 September 1762, reports that a turtle was eaten in celebration of the birth of the prince.
[350] Hoock 2003, 27-8.
[351] Advertisements run in the *London Evening Post* 2-5 November 1754, 28-30 August 1755, 9-11 September 1755.

> then take from the back shell all the meat and intrails, except the monsieur, which is the fat, and looks green, that must be baked to and with the shell;[352]

Glasse went on to describe a complex procedure, which included cleaning and cutting all the traditional portions and stewing most of the meat for four or five hours, finally ending with baking the whole lot inside of the shell. With many of the turtles brought over to England weighing between 150 to 500 pounds (68 to 227 kg) and being up to five feet (1.5 m) long, the preparation of a turtle in such a fashion would have required highly trained cooks and a slew of staff.[353] The table of a truly elite gastronome served turtle dressed by a cook who hailed from the same place of origin.[354]

The high status of sea turtle, with its newfound connotations of nobility and prestige, led to the development of mock turtle dishes.[355] Cooks boiled heads of cattle to simulate the tender, sweet meat found in soups. The *New-York Gazette* even announced what it claimed as the first-ever mock

turtle soup in 1767 and predicted its future popularity.[356]

Dining clubs, such as the Royal Society Club, had since their establishment been venues for political bargaining and business negotiations.[357] The enticement of turtle feasts became a prominent tool for swaying both politicians and businessmen. Gifts of turtles and invitations to turtle feasts were exchanged between politicians to curry favor

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[352] Glasse 1774, 331.
[353] Sizes of turtle reported in the *London Evening Post* issues from 1730 to 1790.
[354] "To the Printer," *Public Advertiser* 5 January 1767 is a letter to the paper describing the sophisticated table and mentions that turtle is dressed "by a Cook of its Country."
[355] Kirkby and Luckins 2007, 1.
[356] "Extract of a Letter from Durham, March 26," *New-York Gazette* 21 May 1767.
[357] Hoock 2003, 27-8.

and support, such as the turtle entertainments given by William Beckford, Esq. Alderman of Billingsgate Ward for the Deputy and Common-Council Men of his ward in 1752, or the 200-pound (91 kg) turtle he served to the Freemen of Bedford in 1753.[358] These are the first appearances in the *London Evening Post* of the use of turtle to gain political leverage. In a letter to the *New Hampshire Gazette* in 1759, an irate citizen singled out the influence of turtle and venison on political affairs in London as a cause of injustice:

> The more I think of the unreasonableness and unjustice of this part of his conduct, the more I am persuaded that his administration cannot possibly last. I know the constitution of the city of London, and the method of managing business there; and I may be allowed to have some little notion of the influence of turtle and of venison.[359]

Due to the nature of these entertainments and their use to sway lower-level government officials, the consumption of turtle began to receive satirical attention in political rhetoric during the second half of the 18th century. "Turtle-Eater" became a slur in political letters printed in newspapers of the late 1750s and onwards. One such letter in 1772 called those in opposition to John Wilkes, a supporter of the Bill of Rights "fat, turtle-fed Knaves of the City."[360] Enemies of Wilkes were quick to take up the same slur and redirect it. In 1773, Lord Robert Clive was accused of misconduct while acting as an agent for the East India Company in Bengal, India. In his defense, Clive rebuked the directors of the East India Company for feasting on turtles and hiring a man (Wilkes) to

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[358] "A Few Days Ago William Beckford, Esq," *London Evening Post* 23-25 July 1752; "London," *London Evening Post* 6 September 1753.
[359] "Continued from our last, of October 19. A fourth Reason against Mr. S--- P---t," *New Hampshire Gazette* 26 October 1759.
[360] "To the Printer of the Public Advertiser," *Public Advertiser* 6 March 1772.

think for them.[361] The following year, a Mr. Edmund Burke remarked during a House of Commons meeting that "you might as well recommend fasting to an Alderman at a turtle feast in the city, as economy to a Committee of Supply," in regards to the recent Navy and Admiralty Boards expenditures.[362] In this way, the consumption of turtle became associated with gluttony and disregard for duty. Satirical artists of the day also latched onto the association of turtles and gluttony, and featured prints lambasting inept turtle-eating Alderman.[363]

Despite this negative public sentiment, turtle feasts of the nobility continued to be prestigious social events well into the 1780s. The Princess Dowager of Wales arranged several turtle dinners for the royal family in 1766, serving turtles from 150 to 300 pounds (68-136 kg).[364] In 1767, noblemen attended a dinner given by Lord Clive for which he had a 500-pound (227 kg) turtle dressed.[365] These extravagant displays of opulence continued. A *General Evening Post* announcement in 1773 reported on an entertainment arranged by the Marquis of Rockingham for the nobility and gentry.[366] Beginning in the 1750s this conspicuous consumption solidified into popular perception an image of a gluttonous and decadent upper class.

While initially, the exoticness of sea turtle was enough to garner social recognition for those who served it, by the mid-18th century the association of the meat with elevated

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[361]"An Authentic Account of Yesterday's Proceedings in the House of Commons," *The Hampshire Chronicle* 10 May 1773.
[362]"London House of Commons Monday, February 21," *The General Evening Post* 19-22 February 1774.
[363] See appendix E for a selection of 18th-century satirical prints.
[364]"London," *London Evening Post* 8 July 1766; "London," *London Evening Post* 2-5 August 1766.
[365]"London," *Public Advertiser* 30 July 1767.
[366]"London," *The General Evening Post* 31 August 1773.

status and prestige saw the elaborate pageantry of its dressing become even more vital to separating elegance from boorish voracity. Simply eating turtle was no longer sufficient to secure prestige. The decorum practiced during consumption, and the sophistication of the dishes was key to keeping it an elite meal. An allusion to this change in sentiment appeared in the *London Evening Post* in 1754, with the obituary of Mr. Joseph Bacon, a glutton who had died from a stroke "as he was eating very hearty of Turtle."[367] The notice observed that Bacon was in the habit of betting on food eating contests with his fellow tradesmen. Here, clearly, was an example of turtle consumption far removed from the refined activity for which it was first known in London. The consumption of turtle had become so embroiled with connotations of gluttony and neglect of duty that it was necessary to qualify the experience with references to civility and formality.

The evolution of turtle eating from a prestigious activity to a social embarrassment was manifested in the *London Evening Post*. The tri-weekly political paper documents the quick progression. Up until the 1750s, aldermen, members of municipal councils, and nobility were gifting turtles to each other and throwing entertainments where elegance was stressed. Allusions connecting turtle consumption and gluttony or disregard for duty began to appear in the paper shortly thereafter, and political letters started using the "Turtle Eating Alderman" as shorthand for decadence and ineptitude in their satire. By the last third of the 18th century, the concept of the brainless turtle eater was firmly rooted in the political commentary of the *London Evening Post*. The position of the turtle as an

[367] "London, To the Author, &c," *London Evening Post* 9-12 March 1754.

infamous food is best summed up in a notice posted in the newspaper in 1775. This satirical piece claimed that Lord North, who later became prime minister during the American Revolution, planned to feed 1000 starving Englishmen with turtle and swuab (likely a misspelling of squab) in

exchange for their scalps.[368]

6.2. Sea Turtle and the American Colonies

Across the Atlantic, in the American colonies, newspapers picked up the insult of "turtle-eater" and presented the practice as yet another example of Britain's exploitation of the colonies. A letter written to the *New-York Gazette* in 1764 very clearly iterates the colonial view of English esurience:

> To me it seems high Time indeed for us to abate in our Extravagances; for at present, our Folly has scarce any Bounds, as to our Eating and Drinking. Shambles Meat, is not looked upon as fit for a Country Mayor's Entertainment. In a few Years we shall all become Turtle Eaters, and a Number of Vessels may be employed in that Branch of Fishery, I think it much genteeler this, than the Newfoundland Cod-hawling.[369]

Other similar letters refer to "pampered Courtiers feeding on Turtle."[370] Others decried the political duplicity of councilors who only supported the sons of liberty while they are fed turtle.[371] One Boston commentator satirically reported that across the ocean in London, the poor should be much relieved that the price of turtle has fallen from 4 shillings

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[368] "Postscript London," *London Evening Post* 2-4 February 1775.
[369] "To the Printer," *New-York Gazette* 17 December 1764, this letter was also reprinted in the *Providence Gazette and Country Journal* as well as the *Boston Gazette*.
[370] "To the Printer of the St. James's Chronicle," *New-York Journal* 12 February 1767; "At a Time When Articles of Intelligence Are Scarce," *New-York Gazette* 6 August 1767.
[371] "To the Printer," *Massachusetts Spy* 20 May 1773.

sixpence to 3 shillings and 2 shillings nine pence per pound.[372] Considering that the average laborer at the time made about 6 shillings a week, the sarcasm is unmistakable.[373]

Turtle as a symbol in political satire also provided a safe method for commentary on the actions of the English elite without running the risk of being tried for seditious libel. Authors accomplished this through American newspapers by printing political letters denouncing turtle consumption as well as seemingly innocent announcements of English turtle feasts. Juxtaposing social condemnation of the practice of turtle feasting with announcements of English participating in that activity allowed Americans to publicly denounce the English ministry without appearing to attack powerful individuals directly.

Despite the apparent disdain for turtle consumption in political satire, turtle was a popular inclusion in the colonial diet. By the 1750s, dockside auctions of Cheloniidae were familiar sights, occurring as often as three times a week in Philadelphia.[374] However, turtles in colonial kitchens, or at least in colonial newspapers, were prepared very differently from those in English entertainments. By 1770, the majority of turtle in American cuisine was served as soup or barbequed. Tavern advertisements from the *New York Journal* announced the addition of turtle barbeque to their menus.[375] While turtle soup was a high-status dish in both the American colonies and Britain, American versions often were made with different ingredients and methods. In Philadelphia, for example,

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[372] "London News," *Boston Chronicle* 8 February 1768.
[373] Olsen 1999, 140.
[374] Schweitzer 2009, 38-9.
[375] "Edward Bardin," *New York Journal* 23-27 August 1770, reprinted in "Edward Bardin," *New York Journal,* 3 September 1770.

the soup was made with sherry.[376] The extent to which these differences were a matter of regional taste or of group resistance to the turtle-eating culture of English elites is unclear. Højlund's point that taste is a social sense, a cultural activity, was noted earlier in this dissertation, and so the difference in turtle soup ingredients cannot be reduced to purely flavor preference.[377]

One particular incident of note in 1769 exemplifies the social and political context that frames turtle consumption in the colonies. In 1759, Sir Francis Bernard was appointed governor of Massachusetts.[378] In the aftermath of the French and Indian War, Bernard quickly lost popularity for his support of the British Government's new taxes, the Sugar & Stamp Acts. He wrote to the ministry, calling for troops to be sent to Boston to assist him in the deteriorating situation.[379] Bernard dissolved the Massachusetts legislature immediately after it voted to send a petition to the King to remove Bernard from office. The governor himself fled Boston for London, sailing on the ship *Rippon*, in August of 1769.[380] Two months after he fled Boston, seven colonial newspapers ran the following notice:

> On Friday, a turtle of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.[381]

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[376] Schweitzer 2009, 38.
[377] Højlund 2015.
[378] Nicholson 2007, 6-16.
[379] Wehrman 2013, 508.
[380] Nicholson 2007, 33.
[381] This appeared in "On Friday," *The New York-Gazette* 30 October 1769, "On Friday," *The New York Journal* 2 November 1769, "On Friday," *The Essex Gazette* 31 October 1769, "On Friday," *The Boston Post-Boy*, 6 November 1769, "On Friday," *The Boston News-Letter* 9 November 1769, "On Friday," the

The Duke of Grafton, Augustus Henry Fitzroy, had become Prime Minister after the resignation of William Pitt the Elder in 1768.[382] Considering that Sir Francis Bernard had sailed for Great Britain and never returned, this news item seems odd. Was it an allusion to political events, or had the gift of a turtle been arranged before Bernard's flight? Either way, this news was widely printed in American newspapers as yet another example of extravagance enjoyed by those who were oppressing the colonies. The gifting and consumption of sea turtles continued to be a symbol in the political rhetoric of American discontent.

6.3. The "Turtle-Eaters": Gluttony and Rebellion

The use of English turtle gifting and consumption practices to express dissatisfaction with

Britain's management of the colonies was most evident in the cases of John Wilkes, Lord North, and a particularly poorly received 1769 Turtle Feast. Radical English politician John Wilkes was an outspoken and ardent supporter of American colonists in the years leading up to the Revolutionary War. Wilkes became the face of the American liberty movement, touted as the "great patriot" for his criticisms of King George III.[383] In 1768 Wilkes was sent to prison at King's Bench for writing seditious libels of the King in his pamphlet *North Briton* No. 45, and the American colonists and their newspapers rallied

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New Hampshire Gazette 10 November 1769, and "On Friday," the *Connecticut Courant* 20 November 1769.

[382] Editors of *Encyclopaedia Britannica* 2020.

[383] Maier 1963, 373. While Lord Mayor of London, Wilkes used his position to present King George with a petition against war with the colonies, calling for the redress of injuries against American rights, and in the same year of 1775, Wilkes gave several speeches in the House of Commons advocating the Bill of Rights, Postgate 1929, 216-9

behind him in a unique manner.[384] Gifts of sea turtles began to arrive at King's Bench Prison for Mr. Wilkes, and American newspapers began running announcements of his turtle feasts in the same prose used by British to describe the dinner parties of the royal. In July, 1768, the *Boston Chronicle* noted that Mr. Wilkes entertained several of his friends with a turtle feast, and in August the *Boston Weekly News-Letter* reported:

> Saturday Mr. Wilkes entertained his friends with a turtle dinner, in honor of his Majesty's birthday. The same night, by order of John Wilkes, Esq; the King's Bench Prison was illuminated, and several fireworks plaid off.[385]

The use of the language of elegance and sophistication by American newspapers when describing Wilke's engagements, was an audacious mimicry of English tradition.

One of the most symbol-laden gifts of turtle to Wilkes was announced in the *Boston Weekly News Letter* of 30 November 1769. It acknowledged the receipt of two turtles by John Wilkes weighing 45 and 47 pounds (20 and 21 kg), respectively. The newspaper stated that the turtles were gifts from "a Number of Gentlemen" in Boston.[386] Sending such small turtles at first appears odd, as turtles so little were not usually dressed and eaten, the best turtles being those that weighed 150 to 500 pounds (68 to 227 kg).[387] Dr. Thomas Young of Boston identified the senders in a letter in which he announced that he and the Boston Committee of Correspondence were responsible for the gift. The letter stated that the committee had sent Wilkes the two turtles whose weight added up to 92

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[384] Almon 1804, 271-3.
[385] "London," *Boston Chronicle* 28 July 1768; "London," *The Maryland Gazette* 28 July 1768.
[386] "London," *Boston Weekly Newsletter* 30 November 1769.
[387] Sizes of turtle reported in newspapers from 1730 to 1790 including "London," *The Daily Advertiser* 1 September 1753, "London," *The Public Advertiser* 13 August, 1764, "London," *The Gazetteer* and *New Daily Advertiser* 20 September 1765, "London," *The Gazetteer* and *New Daily Advertiser* 21 June 1766.

pounds (42 kg). The number 92 is significant as it is the number of representatives who voted against the revocation of the Circular Letter of 1768, which rebuked Parliament for taxation of the colonies without representation.[388] The *Boston Weekly News Letter* also claimed that the ship carrying the turtles made the journey in exactly 45 days, which is more likely an allusion to Wilke's *North Briton No. 45* rather than to the actual length of the trip.

Gifts of turtles still arrived for Mr. Wilkes even after his release in 1770. Several American newspapers noted that a "Captain of a West Indiaman" or a "Merchant" presented Wilkes with turtles.[389] The employment of related titles, rather than the names of these individuals, was a sharp departure from turtle gift announcements in English papers. As mentioned above, prestige was garnered by the turtle-giver because of the difficulty of bringing the animal live to London, causing English papers to almost always note the name of the gift giver. *The Boston Evening Post* included the observations of a friend of Wilkes who had visited him in prison. According to the newspaper, when the friend remarked upon the amount of weight Wilkes had gained, the prisoner replied: "Can you wonder at that, (said the Patriot [sic]), when you consider I am an Alderman, and as fond of turtle as the fondest of them."[390] This story and quote saw reprinting in the *Providence Gazette and Country Journal*, *the Massachusetts Spy*, and *the Connecticut*

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[388] Henry 1976.
[389] "Saturday Morning," *The New-York Gazette* 1 January 1770 noted a 300-pound (136 kg) turtle was given to Wilkes by a Merchant, similarly "Mr. Alderman Townsend," *Pennsylvania Chronicle* 16-23 September 1771 described a 200-pound (91 kg) turtle given to Wilkes by the Captain of a West Indiaman lately arrived.
[390] "A Friend of Mr. Wilkes," *The Boston Evening Post* 9 July 1770.

Courant.

Even as Wilkes continued to receive ironic gifts of turtle, a letter to the *Public Advertiser* in 1771 called the enemies of Mr. Wilkes "fat, turtle-fed Knaves of the City."[391] The colonists' disdain for the political maneuvering prevalent at turtle feasts was displayed in 1769 when Americans in London refused to attend such an entertainment. A letter from London published in the *Essex Journal* commented:

> As Money is scarce at Bermudas, we hear the Commissioners have lately had a large Remittance of TURTLE from the island, some of which they dressed last Week in this Town; and tho' many invitations were given out to the Royal Repast, we hear that excepting the PENSIONED HYPOCRITE, that great Friend to his Country, not an American appeared to regale of their Dainties.[392]

This refusal to participate in the turtle feast, which at this time was well established as a place of political machinations, was a clear message to the ministry that the injuries done to the colonies could not be redressed in such a manner, and that their complaints must be taken seriously.

British supporters of the Bill of Rights, a piece of Parliamentary legislation intended to protect the liberties of colonial citizens, appeared to have no qualms with turtle consumption, possibly due in part to the large quantities served by Wilkes while in prison. The *Middlesex Journal* ran a notice in July 1769 that several supporters of the Bill of Rights dined at a coffee house at which they had a large turtle dressed for the occasion. While participating in the activity colonialists had come to disdain, the supporters toasted

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[391] "To the Printer of the Public Advertiser," *Public Advertiser* 26 March 1772.
[392] "Letter from a Gentleman in London," Essex Gazette 3 October 1769. All capitalization and emphasis are from the original text.

the health of Wilkes while lamenting that no redress for the colonists seemed to be in sight.[393] Charles Watson-Wentworth, the Marquess of Rockingham and Prime Minister from 1765 to 1766, an avid supporter of constitutional rights for the colonists, also held a turtle dinner that was mentioned in the 3 September 1773 issue of the *Morning Chronicle*.[394]

In the aftermath of the Battle of Lexington and Concord in April 1775 Americans turned from using sea turtle as a symbol to involving them in acts of armed resistance. American privately-armed warships (privateers) began seizing British turtling vessels.[395] Special notice was given to the capture of sloops with turtles supposedly destined for Lord North. The *Pennsylvania Evening Post* described the capture of ships carrying turtles with "his Lordship's name cut nicely in the shell."[396] The newspapers proudly proclaimed that the privateers presented these confiscated turtles to the "President of the American Congress" or named other patriots as recipients.[397] One such privateer seized a turtle meant for Admiral of the Fleet Richard Howe, who commanded British naval forces in America.[398] The *New-England Chronicle* reported another incident:

> She [*Reward*] fell into the Hands of the United States of America. There were on board the above Ship, a Number of Turtle directed to Lord North, with his Name cut in the Shell, the best of which, Capt. Wingate Newman, master of the armed

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[393] "London," *Middlesex Journal* 25 July 1769.
[394] "Country News," *Morning Chronicle* 3 September 1773; Cone 2015 80-90.
[395] "Watertown," *Connecticut Gazette* 2 October 1775; "Extract of a Letter from Antigua by the *Mary* and *Ann*," *London Morning Chronicle* 11 September 1776.
[396] "Letter from New York," *Pennsylvania Evening Post* 8 June 1776.
[397] "When, alas!" *New England Chronicle* 15 August 1776; "Last Tuesday," *Freeman's Journal* 24 August 1776, "Boston," *The Connecticut Courant* 2 September 1776.
[398] "Newburn," *Providence Gazette and Country Journal* 17 January 1778; Balderston 1972, 327.

Vessel, is determined to send to the Hon. John Hancock.[399]

Whether or not these turtles, in reality, had the names of Lord North or Lord Howe carved into their shells is irrelevant. Merely suggesting that the prime minister or the highest ranking British naval officer was shipping or receiving delicacies for indulgent entertainments was enough to rally Americans against the perceived decadence of their foe. Furthermore, these captures were perceived as small victories over otherwise untouchable individuals, and thus served an essential function in supporting morale.

American attacks on turtling vessels were not carried out in pursuit of naval glory. Turtling sloops were small vessels, crewed by 10 to 12 men including two mates and a captain.[400] Wrecks of turtling vessels found at South Hole Sound, Cayman Islands, appear to have been only around 60 feet (18 m) long with a narrow beam and shallow draft for hunting turtles feeding on shallow seagrass.[401] The capture of such small ships did not yield much profit for privateers, suggesting that Americans were attacking them primarily for political motives.

British newspapers similarly used the capture of turtling vessels as an opportunity to spread anti-American propaganda, painting the colonists as immoral, conscienceless brigands. The *London Evening Post* reported in 1776 that Americans stole all but five turtles from a very poor captain who had been out turtling and had left him without any means to earn a living.[402] Sea turtle became a vivid symbol of the American Revolution

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[399] "When, alas!" *New-England Chronicle* 15 August 1776.
[400] Smith 1981, 64.
[401] Smith 1981, 30-6.
[402] *London Evening* Post 1776, issue 2281.

that was even recognized by foreign officials. In September of 1779, Juan de Miralles, a Spanish agent in the United States, sent George Washington a green turtle weighing 100 pounds (45 kg) along with the intelligence that Spain had declared war against England. On October 16, the general sent Miralles a letter (figures 6-1 and 6-2) thanking him for the present by saying: "Nothing could be more acceptable than your present, but the manner in which it was bestowed."[403] The presentation of a turtle to George Washington is another example of the complexity of the social perceptions surrounding its gifting and consumption.

Great Britain and its North American colonies underwent significant cultural change in the 18th century with regards to their relationship with sea turtle. A longtime staple in the mariner's diet, sailors for centuries welcomed the sweet meat of turtle on board ships, but it was certainly less prized or symbolic than beef steak with its connotations of English patriotism.[404] Salted or cooked in a soup, turtle provided a hearty source of fresh meat, particularly on long homeward voyages from the West Indies. Eventually, the green sea turtle made its way into the dining rooms of Britain's elite society. The exoticness as well as the enormous expenditure of resources required to bring the animals alive to Britain that resulted in its new status as a prestige item and tool for increasing social status. Gifts of turtle and turtle feasts involved England's rich and powerful.

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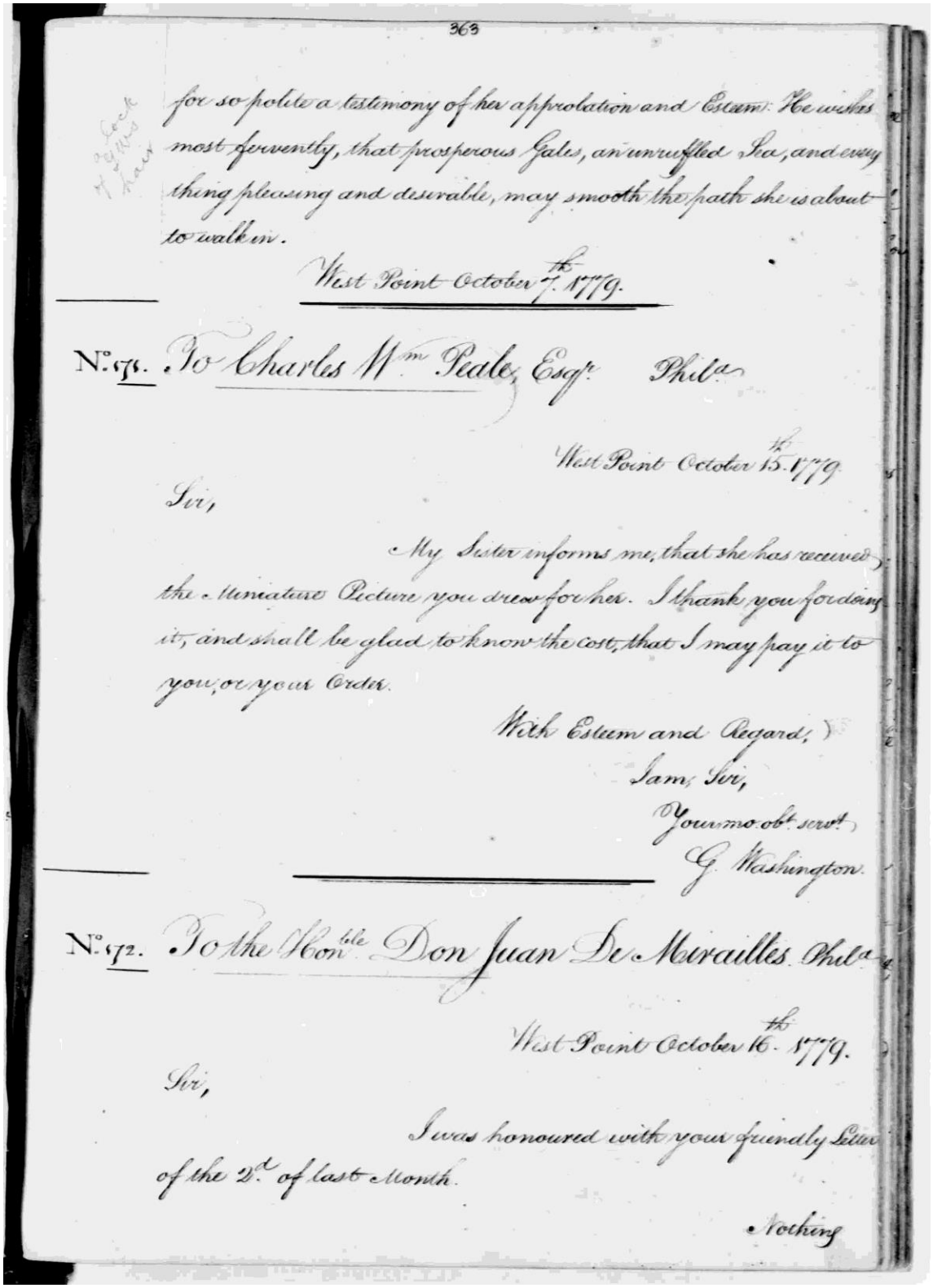
[403] Washington, G. 1775-1785. Papers. Series 3, Subseries 3H, Varick Transcripts, Letterbook 1, No. 172., Library of Congress, Washington DC.
[404] Hoock 2003, 54.



363

for so polite a testimony of her approbation and Esteem. He wishes most fervently, that prosperous Gales, an unruffled Sea, and every thing pleasing and desirable, may smooth the path she is about to walk in.

West Point October 7th 1779.

N°. 71. To Charles Wm. Peale, Esqr. Phila.

West Point October 15th 1779

Sir,

My Sister informs me, that she has received the Miniature Picture you drew for her. I thank you for doing it, and shall be glad to know the cost, that I may pay it to you, or your Order.

With Esteem and Regard,
I am, Sir,
Your mo. obt. servt.
G. Washington.

N°. 72. To the Hon^ble Don Juan De Mirailles. Phila.

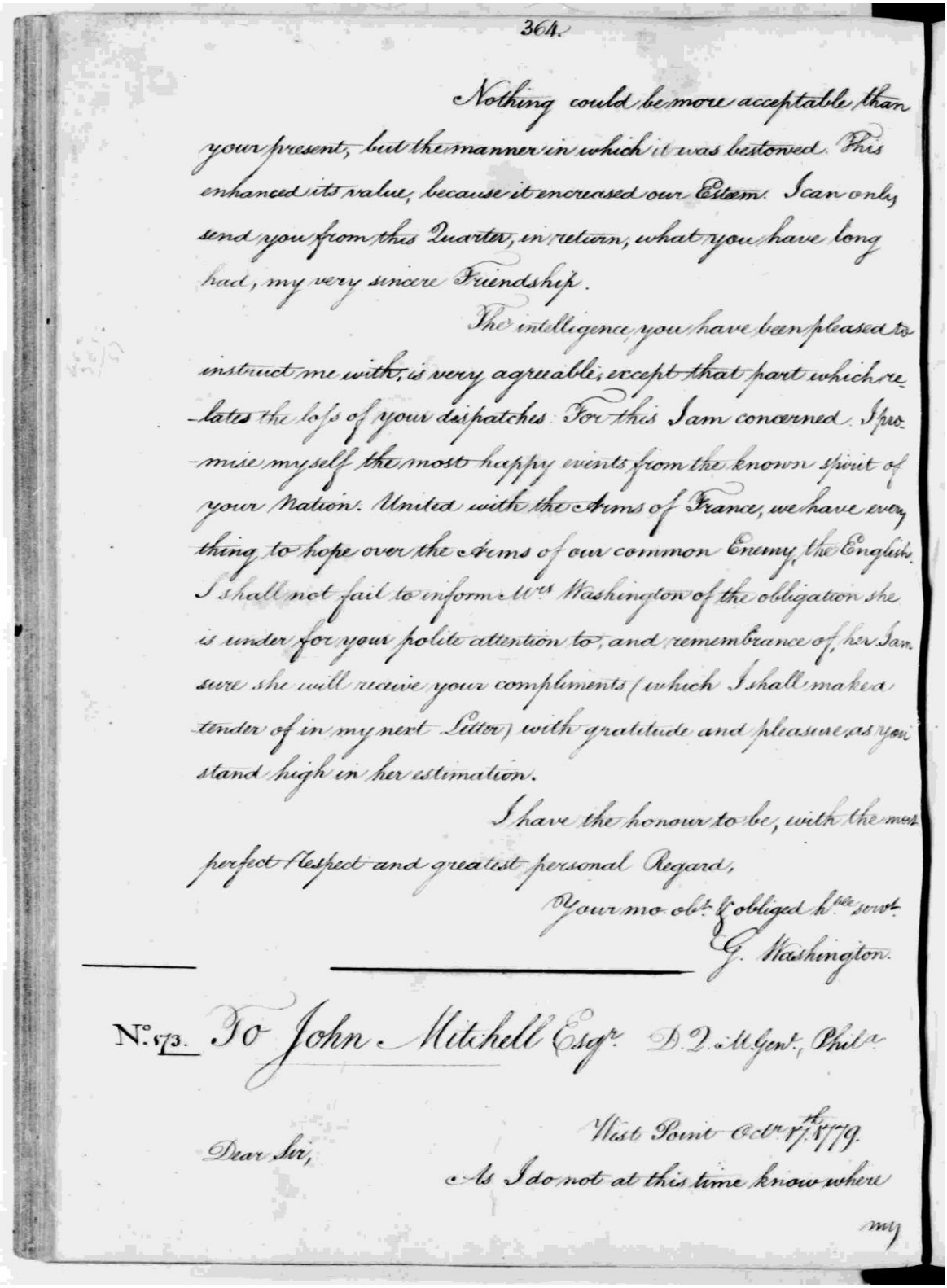
West Point October 16th 1779.

Sir,

I was honoured with your friendly Letter of the 2d. of last Month.

Nothing

Figure 6-1: George Washington papers page 1, series 3, subseries 3H, Varick transcripts, letterbook 1. Reprinted from Washington, G. 1775-1785, courtesy of the Library of Congress**.**



364.

Nothing could be more acceptable than your present, but the manner in which it was bestowed. This enhanced its value, because it encreased our Estem. I can only send you from this Quarter, in return, what you have long had, my very sincere Friendship.

The intelligence you have been pleased to instruct me with, is very agreable, except that part which relates the loss of your dispatches. For this I am concerned. I promise myself the most happy events from the known spirit of your Nation. United with the Arms of France, we have every thing to hope over the Arms of our common Enemy the English. I shall not fail to inform Mrs Washington of the obligation she is under for your polite attention to, and remembrance of, her. I am sure she will receive your compliments (which I shall make a tender of in my next Letter) with gratitude and pleasure as you stand high in her estimation.

I have the honour to be, with the most perfect Respect and greatest personal Regard,

Your mo. obt. & obliged hble. servt.

G. Washington.

No. 573. To John Mitchell Esqr. D.Q. M. Genl. Phila.

West Point Octr. 7th 1779.

Dear Sir,

As I do not at this time know where my

Figure 6-2. George Washington papers page 2, series 3, subseries 3H, Varick transcripts, letterbook 1. Reprinted from Washington, G. 1775-1785, courtesy of the Library of Congress.

During the 1750s, popular perceptions of turtle consumption shifted, and it was seen less as a refined dish and more as a symbol of conspicuous and gluttonous consumption. Turtle feasts became a device used to purchase political favors and control. This cultural practice became a warning flag for corruption and ineptitude in both American and British in political satire in the 1760s. Contemporary newspapers and letters, both from Britain and the colonies, clearly demonstrate this evolution. They document the 18th century's progression of turtle consumption from novelty, to social prestige item, to its steep decline into an indicator of social disgrace. Eventually, in the tumult and discontent of the 1760s, turtles and their negative connotations would be used by Americans to unify around their grievances and to send messages of political disobedience to the ministry. Satirical mimicry of turtle feasts and the theft of turtle from the dinner tables of Britain's elite was a reflection of the broader issues behind the American Revolutionary War. Sea turtles had become, like tea, a politically-charged commodity.

7. DISCUSSION: HUMAN-ANIMAL INTERACTIONS, ANTHROPOLOGICAL PERSPECTIVES

The events and social contexts of the 16th through 18th centuries had lasting effects on human-Testudines interactions that continue to this day. Coastal communities of turtle fisheries impacted the drastically changed behaviors and globalization of turtle consumption. This chapter discusses how the historical and archaeological synthesis presented in previous chapters can be used to address anthropological questions concerning identity, agency, habitus, and belief systems. The investigation of human-animal interactions, through zooarchaeology, allows us to study cultural elements that are otherwise only indirectly observable. The case study of turtles offered in this work demonstrates the practical application of order-specific inquiry, and its potential for addressing anthropological themes.

7.1. Applications for Order Specific Studies

The way humans use animals and the ways we classify them carry societal meaning.[405] The first forays into investigating this relationship began in earnest in the 1980s with a paradigm shift. Eugenia Shanklin called for a multidimensional approach to analyzing human and animal interaction, moving away from the purely animal-as-food theoretical approach with its largely quantitative underpinnings.[406] As mentioned in Chapter 1, Douglas Campana and Tanya Peres followed up on this initiative, expanding

[405] Mullin 1999, 207.
[406] Shanklin 1985.

on the potential of foodways studies to assist in defining ethnicity and belief systems.[407] Order specific studies, like the focus of this dissertation, open up even more potential to answer anthropological questions. Studies like this can move beyond the focus of what is eaten, to include a holistic analysis of that animal's interaction with human groups, including ecology, byproduct use, ideology, and hierarchy of animal elements to name a few.

This study allowed for nuances to surface, such as aiding in the definition of indigenous-European relationships in shipboard environments discussed in Chapter 4, where I highlighted William Dampier's incorporation of Miskitu strikers into the "we" of his European crew. An order-specific study included considerations of viewshed and other geospatial analysis, going beyond where or how one acquires the food that is consumed. When discussing turtle consumption at Port Royal, Jamaica, these theoretical approaches and methodologies expanded my ability to address questions of identity. Not only did my work support the thesis that turtle was associated with the English identity, but it was also able to describe how this association would be widely recognized.[408] It also allowed me to explore intersectionality as an explanation for why turtle was adopted into British culture in a way that was different from its manifestation in other European cultures.[409]

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[407] Campana 2010; Peres 2017.
[408] Refer to section 3.2.1 "Geospatial Analysis."
[409] Refer to section 3.2.2 "Religion."

Following the interactions of a single order of animal cross-culturally and through different social classes brought into focus specific world views as experienced by the maritime community. It facilitated investigations of social use of space on ships, supported by historical and archaeological evidence.[410] This study proved to be exceptionally useful for contextualizing shipwreck and coastal sites' faunal remains, allowing them to be comparatively considered. Approaching foodway studies in this manner compliments and adds to the valuable work being done presently in archaeology, which Sara Graff has concisely summarized: "The study of cooking and food preparation helps us to identify ways in which everyday practice changes and/or continues in the political, economic, religious, and sociocultural realms."[411] Adding order-specific methodology to current tactics in archaeological studies of foodways enhances anthropologists' ability to address the nuances of the themes identified by Graff. For example, I used turtle consumption as a focus to study the anthropological concept of social control and its manifestation during a time of conflict. I was able to follow its changes and developments through historical documents and provide meaningful commentary on the human experience within a specific political and social context.[412]

These are just a few examples of how the analytical framework of this dissertation can serve as a valuable tool for the field of archaeology. This research merges

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[410] Refer to section 4.3 "Archaeological Patterns."
[411] Graff 2018, 307.
[412] Refer to chapter 6, "The Turtleization of Europe and the Colonies."

archaeological and historical data with anthropological lines of thought to produce a holistic work examining how human and non-human elements interact within cultural systems. It is the goal of this author to apply this strategy to future work involving other orders of animals with a focus on maritime communities.

7.2. Suggested Practices

An order-specific approach to studying foodways can produce more in-depth biological foundation than is generally found in foodways publications. Understanding of species distribution, skeletal morphology, biology and animal behavior is a vital part of anthrozoology, or the study of human-animal relations. Human-animal studies often tend to be anthropocentric.[413] However, as this dissertation has shown, the humans we are studying themselves had complex interactions with animal species. In order to gain the emic, as well as the etic perspective on the past, researchers need to go beyond questions of utility and begin by defining the "animal complex" for the order or category being considered. Proposed here as a definition for animal complex is the inclusion of the biological and ecological background to contextualize cultural analysis in a holistic manner. As an example, championing the value of such a foundational strategy, consider the exploration of sea turtle nesting habits and allometric relationships concerning straight carapace length that greatly impacted the analysis of data presented in Chapter 5 of this dissertation. Likewise, knowing whether or not turtle meat actually possessed qualities

[413] Boyd 2017, 300.

for medicinal relief concerning a variety of ailments initiated a novel discussion of sailor folk-medicine.[414]

Having established a definition for the animal complex under study, the next step for the archaeologist is to employ the historical particularist approach, constructing a historical background that encompasses the time period of the archaeological assemblage, but also extends into earlier periods. This approach allows the researcher to identify patterns and changes to those patterns within the assemblage. Foundational archival research is nothing new to archaeology and seems nearly matter of course for those researchers working with sites from historic periods.[415] Yet it is worth re-emphasizing here that special attention must be paid not only to sociopolitical events but also to understand ideology as it concerns the animal complex. Iconography, as well as text and interdisciplinary avenues such as ecology, can prove especially useful.

It is after these first two preparatory steps that archaeological analysis of the faunal assemblage can begin. This preparation can aid the study of assemblages with considerable loss of context to still supply a wealth of information.[416] When seeking out assemblages to include in an order-specific analysis, it was important for me to incorporate sites that were functionally different. This allowed me to identify specific differences between the assemblages as indicative of changes or variations in the way the human

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[414] Refer to chapter 4 section 4.4.3 "Sailor's Folk Medicine."
[415] Funari 1999, 38; Kersel and Rutz 2014, 2-5.
[416] This can be particularly useful sites disturbed by construction or landscaping activity, as shown in Chapter 5.

groups at these sites were interacting with these animals, and further extrapolate these to better understand cultural elements such as world view.

Finally, with a comprehensive cultural and archaeological backdrop in place, I was able to apply my findings to the examination of particular historic events and figures. My work contributed not only to our understanding of these events but to also further define a sociopolitical environment which was as much an active figure as the individuals who moved about within it. This culmination of my work is, I believe, a strong argument for the anthrozoological approach and a call for its wider application in the field of archaeology.

7.3. Conclusions

As members of the global community, it is the responsibility of researchers to make their work relevant and useful to the world in which they work. The Society for Historical Archaeology states in its ethic principles the archaeological study must be conducted "for the benefit of present and future peoples."[417] This applies to even those that deal with material already excavated and housed in repositories as I have done in this dissertation. Consideration must be taken to identify the stakeholders of my research and its benefit to those outside the archaeological community.

The model established in this dissertation has utility outside of my discipline in its deliberate efforts to demonstrate new epistemologies. In the 2018 article, "A Future for

[417] Society for Historical Archaeology 2015.

Archaeology: In Defense of an Intellectually Engaged, Collaborative and Confident Archaeology," Liv Nilsson Stutz points out how valuable diversity of ways of knowing lead to multivocality and ultimately improving the global community's ability to address new problems.[418] This research presented an in-depth explanation of a new analytical methodology relying on case studies that span several centuries.

While overarching benefit regarding epistemology is relevant to the justification of my work, on a more local scope, the question must still be asked: Who are the stakeholders of my research, and how are they impacted by it? Does what I have uncovered through data collection and analysis provide a better understanding of the current endangered status of sea turtles in the world today? Modern-day conservation efforts attempt to rank threats to endangered species of sea turtles, and the information provided here supplies historical archaeological perspectives to apply to our understanding of the current reality for Testudines (and more specifically the family Cheloniidae). Biologists Donlan et al explicitly state the desperate need to fully understand the "anthropogenic hazards affect[ing] the biology of organisms," and examines sea turtles as a case study.[419] Having a historical and cultural context facilitates these initiatives. Other research in order-specific studies, can, like this dissertation, fulfill a vital role in the maintenance of our global community, of both its human and non-human constituents.

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[418] Stutz 2018.
[419] Donlan et al. 2010.

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APPENDIX A: QUICK SKELETAL REFERENCE GUIDE FOR SEVERAL ELEMENTS, TAXONOMIC LIST & SUPPLEMENTAL ILLUSTRATIONS

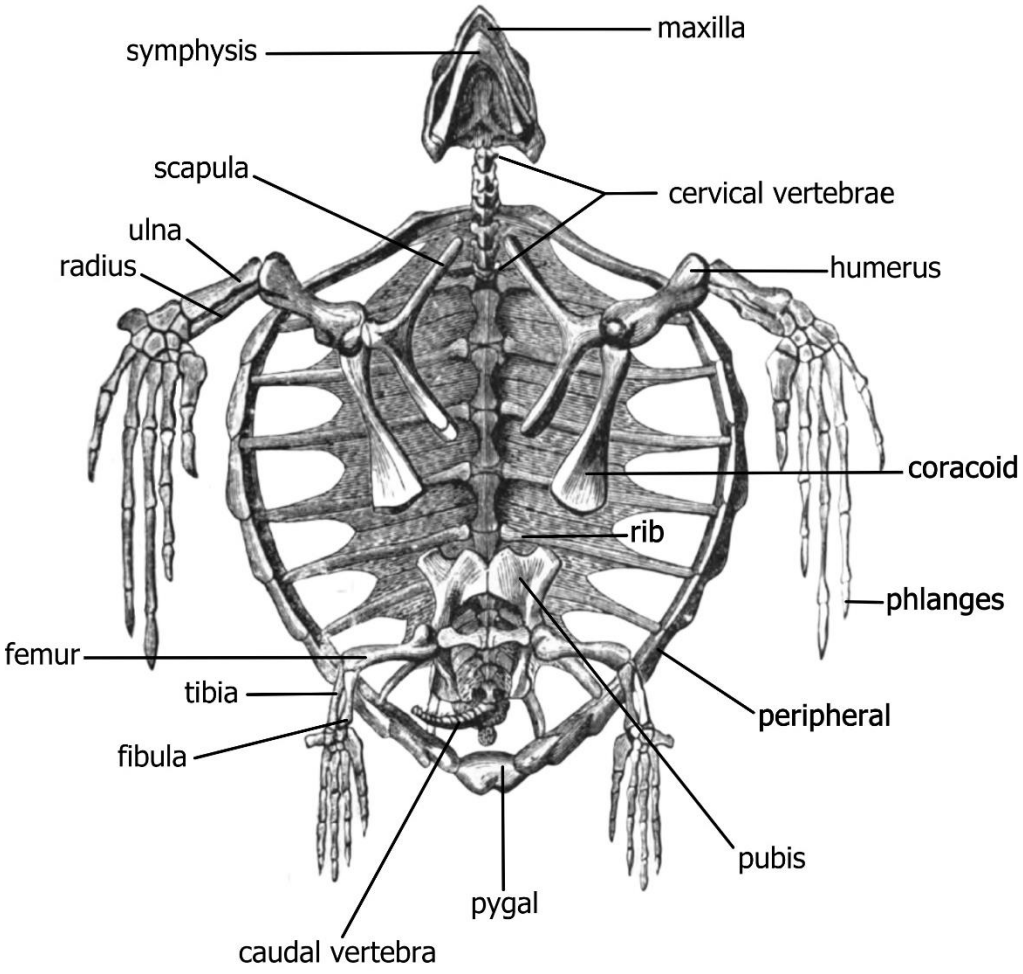

Figure 7-1.Diagram of generalized sea turtle skeleton. Adapted from Figuier 1892, fig. 3.

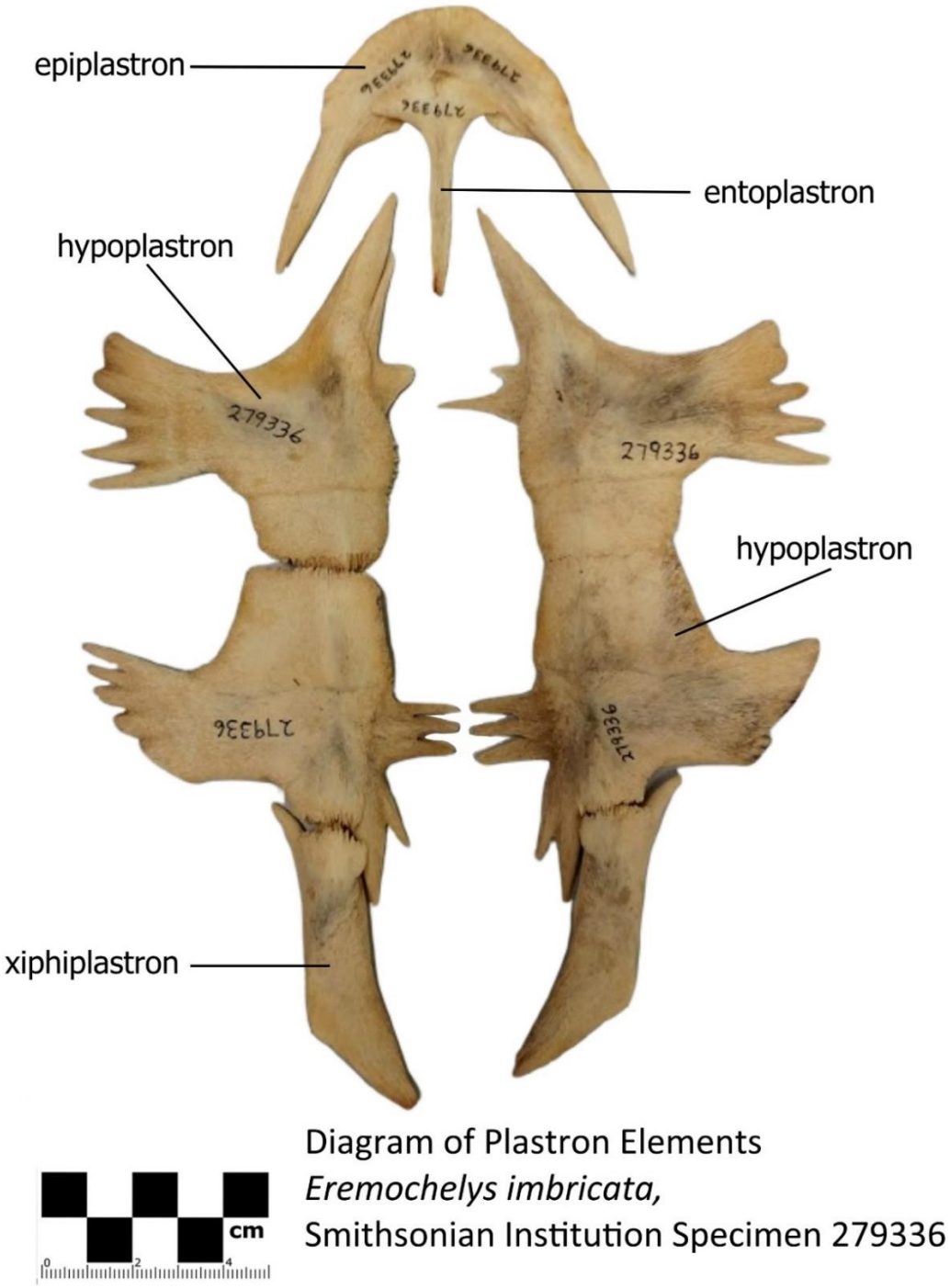

Figure 7-2. Diagram of plastron elements, *Eremochelys imbricate* (hawksbill sea turtle, juvenile). Smithsonian Institution Specimen 279336, SCL 27.6 cm, sex unknown. Photo by author.

Figure 7-3. Cranium of *Caretta caretta* (loggerhead sea turtle). Smithsonian Institution Specimen 214141, SCL unknown, carapace not collected. Photo by author.

Figure 7-4. Cranium of *Chelonia mydas* (green sea turtle). Smithsonian Institution Specimen 300442, SCL unknown, carapace not collected. Photo by author.

Figure 7-5. Cranium of *Eretmochelys imbricate* (hawksbill sea turtle). Smithsonian Institution Specimen 214141, SCL 81 cm. Photo by author.

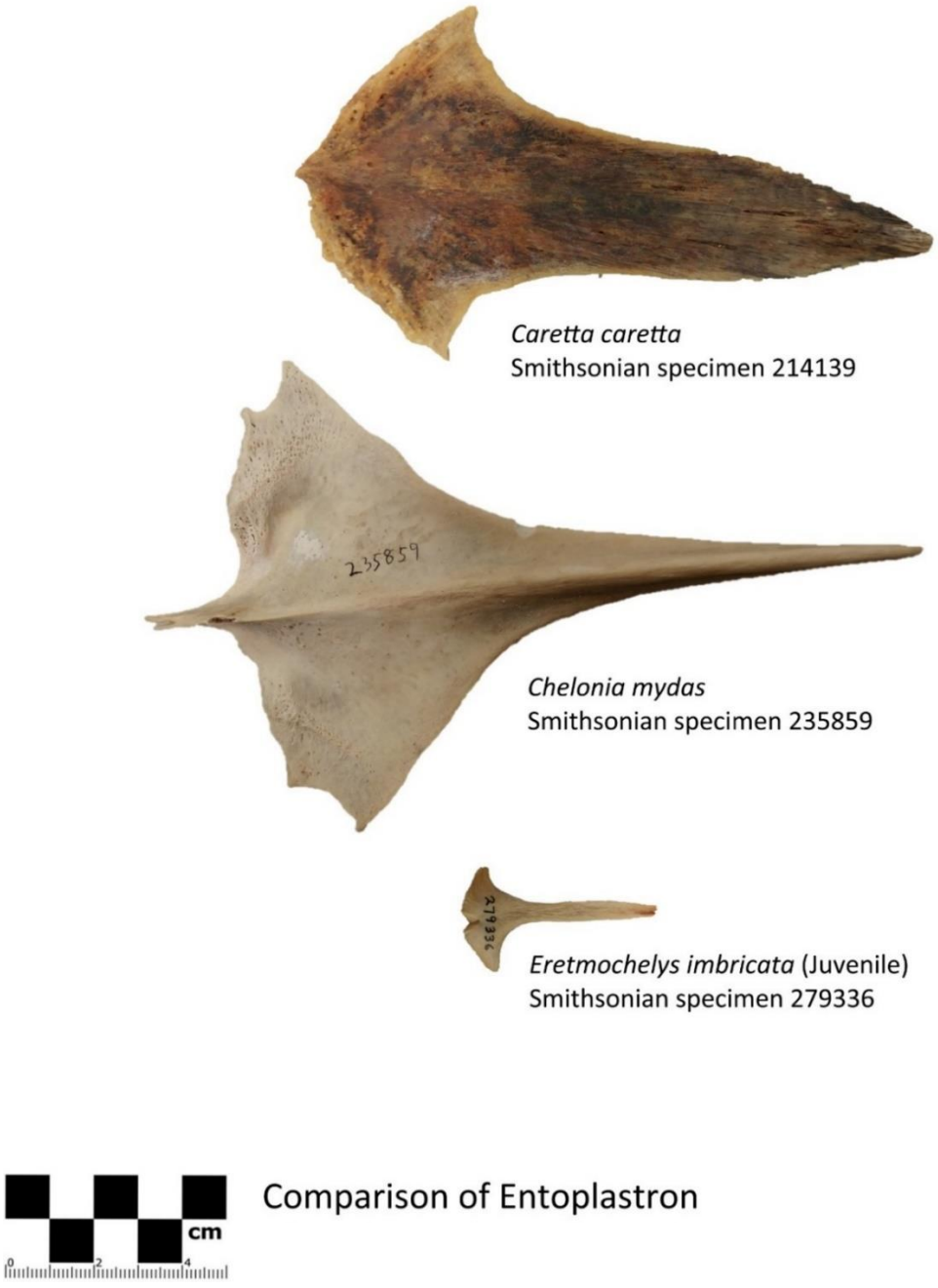

Figure 7-6. Comparison of entoplastrons of *Caretta caretta* (loggerhead sea turtle), *Chelonia mydas* (green sea turtle), and *Eretmochelys imbricata* (hawksbill sea turtle). Smithsonian Institution specimen 214139 SCL unknown, specimen 235859 SCL unknown, specimen 279336 SCL 27.6 cm. Photo by author.

Figure 7-7. Comparison of femurs of *Caretta caretta* (loggerhead sea turtle, right), *Eretmochelys imbricata* (hawksbill sea turtle, left), and *Chelonia mydas* (green sea turtle, right). Smithsonian Institution specimen 216257 SCL unknown, specimen 279336 SCL 27.6 cm, specimen 235885 SCL unknown. Photo by author.

Figure 7-8.Comparison of right humerii of *Caretta caretta* (loggerhead sea turtle), *Eretmochelys imbricata* (hawksbill sea turtle), and *Chelonia mydas* (green sea turtle). Smithsonian Institution specimen 216257 SCL unknown, specimen 279336 SCL unknown, specimen 269986 SCL unknown. Photo by author.

Taxonomic list that includes all animals mentioned in the text

Order	Family/subfamily	Genus and Species	Common Name
Artiodactyla	Suidae	*Sus scrofa*	domestic pig
	Bovidae	*Bos taurus*	domestic cattle
	Caprinae	*Capra hircus*	domestic goat
		Ovis aries	domestic sheep
Galliformes	Phasianidae	*Gallus gallus*	domestic chicken
		Meleagris gallapavo	domestic turkey
Anseriformes	Anatidae	*Anas platyrhynchos*	domestic duck
Testudines	Cheloniidae	*Caretta caretta*	loggerhead sea turtle
		Chelonia mydas	green sea turtle
		Dermochelys coriacea	leatherback sea turtle
		Eretmochelys imbricate	hawksbill sea turtle
		Lepidochelys kempii	kemp's ridley sea turtle
		Lepidochelys olivacea	olive ridley sea turtle
		Natator depressus	flatback sea turtle
	Emydidae		pond turtles
	Dermatemydidae	*Dermatemys mawii*	Hickatee river turtle
	Testudinidae	*Chersina angulate*	angulate tortoise
		Geochelone sp.	tortoise
		Geochelone denticulate	yellow-footed tortoise
	Testudinoidea	*Geomyda* sp.	land tortoise
		Pseudemys scripta	red-eared slider (pond terrapin)
		Terrapene ornate	ornate box turtle /western box
		Gopherus polyphemus	gopher tortoise
Actinopterygii			ray-finned fishes
Carangiformes	Echeneidae	*Echeneis remora*	remora (sucker fish)
Perciformes		*Lutjanus* sp.	snapper
Gadiformes	Gadidae		cod fishes
Mytiloida	Mytilidae		oysters
Littorinimorpha	Strombidae		conchs

APPENDIX B: PORT ROYAL FAUNAL ASSEMBLAGE SUPPLEMENT

Methodology

Excavations directed by Dr. Donny Hamilton in 1981 to 1990 recovered faunal material through both screening dredged material and sampling.[420] The remains of fish were excluded from collection and assumed to be intrusive due to the submerged nature of the site.[421] An initial analysis of the faunal material was performed by B. Shaffer, B. Baker, B. Olive in 2006 at TAMU. In 2015 I studied 212 specimens and compared them to the Zooarchaeological Research Collection at TAMU and the *CITES Identification Guide for Turtles & Tortoises* for identification. Where possible, specimens were identified to species, although less complete specimens were identified to order. Data collected on the assemblage included: accession number, locality, element type and part, surface modification including the presence or absence of butchery marks, degree of completeness, side, and age where possible. Out of 212 specimens that were studied, 52 were too small or damaged for identification. Specimens that were able to be refitted were given a single accession number by the excavators and are treated as a single unit.

Quantification

Methods for how to measure taxa abundance have caused much debate within the zooarchaeological community. One of the most common methods is the use of the number of identified specimens per taxon (NISP). However, since a majority of the faunal

[420] Hamilton 1981-1990; Shaffer et al. 2006.
[421] Shaffer et al. 2006.

assemblage from Port Royal exhibit cleaver or cut marks, the use of NISP to compare relative abundances is not very useful as it can be skewed by butchery patterns.[422]

Instead of NISP to compare abundances, the calculation of the minimum number of individuals (MNI) as laid out by Bunn was followed.[423] In this method, the most common element was identified for each taxon and then the elements were sided. The number of elements of the most common side was then used as the value for MNI. As this assemblage was small, specimen-by-specimen comparison was easily accomplished. However, many of the remains were preserved differentially due to their underwater environment; in light of this, MNI calculated in this report was done so very conservatively. The only deviation from this method was in the instance of *Bos taurus*, where three atlas vertebra specimens were found that were clearly not joining fragments.

When left and right sides of the same element were compared it was apparent that some elements from the less common side were not counterparts to those used to calculate MNI. In order to gain a more accurate picture of the number of individuals represented by the assemblage the calculation of the quantifiable skeletal part (QSP) was completed as introduced by Plug in 1988 and expanded upon by de Ruiter.[424] In this method skeletal units (SU) are determined for each family of animal represented by the

[422] Grayson 1979, 201.
[423] Bunn 1982.
[424] de Ruiter 2004, 268.

assemblage and these SU are defined by anatomical landmarks. This is then compared to the skeletal complexity, which is a summation of the SU.[425] The comparison of MNI and QSP is reported in table 5.

Table 5. Relative abundance estimates for Port Royal faunal assemblage.

Family	MNI	%MNI	QSP	%QSP
Bovidae	3	15.79	0.1413	15.55
Caprinae	2	5.26	0.0815	8.97
Suidae	3	15.79	0.0111	1.22
Phasianidae/Anatidae	3	15.79	0.0984	10.83
Chelonioidea	9	47.37	0.5763	63.43

In order to determine relative abundance, the QSP was divided by the summed QSP for all taxa in the assemblage. This is then compared to the percent MNI. While in the cases of Bovidae and Caprinae, %QSP seems a more accurate representation of relative abundance, the QSP method as performed here was unable to account for specimens that could easily be ascribed to separate individuals due to age or size. For example, there were three Suidae specimens that were identified as two proximal ends of right ulnae from adult individuals and one tibia from a juvenile. This clearly represents three separate individuals which make up an MNI percentage of 17.65% of the assemblage; however, QSP calculations place Suidae as only a 1.22% component

[425] de Ruiter 2004, 268-70. QSP=∑ (SU per taxon)/Skeletal complexity. The skeletal complexity values for the families of animals were taken from de Ruiter 2004, table 2 when possible. The skeletal complexity values for Phasianidae was calculated at 132, and Chelonioidea at 144.

Taphonomy of Sample

Taphonomy in any archaeological investigation is vital to understanding how faunal remains can inform on human behavior. This is even truer in historical archaeology where, in conjunction with written records, excavated materials have the potential to identify nuances of space use of not only general groups, but even individuals. In the Port Royal assemblage many of the specimens exhibit butchery marks. It is important to understand and identify marks on bones caused by site formation processes and differentiate these from human action.

As Port Royal is a catastrophic site, it is not plagued by many of the questions of collecting agents that may occur in cave or fluvial sites. The faunal assemblage was deposited by the 1692 earthquake and covered by building debris. Since the city essentially subsided into quicksand, it is unlikely many specimens were carried far from their original place of deposition during the event. The assemblage was later sealed beneath a coral layer most likely deposited by the hurricanes of 1722.[426]

While the majority of the assemblage is in good condition, prolonged submergence has caused pitting and erosion of some specimens. Faunal material such as sea turtle plastrons, which are less dense were often times fairly brittle and in the process of splitting along their midline.

Signs of butchery, such as cut marks are notoriously difficult to recognize with

[426] Hamilton 1984, 23.

the naked eye from marks left behind from carnivores. Shipman and Potts argue that the differences between v-shaped tool marks and u-shaped carnivore gnaw marks can only be seen with the aid of light or electron scanning microscopes, while other archaeologists such as Bunn maintain these differences are visible to the naked eye in good light.[427]

During the analysis of the Port Royal Assemblage, cleaver marks were easily differentiated from dog or vermin gnaw marks according to the characteristic markers defined by Rixson in 1989. The use of cleavers in 17th-century butchery leaves behind smooth planes on the cancellous bone with fracturing and fragmentation at the cleaver exit point, although broad surface striations may also be left behind.[428] Fillet marks or other knife-made cut marks are more difficult to distinguish from tooth marks with the naked eye. However, finer, deeper cut marks which correspond to known de-fleshing patterns of the 17th century have been noted as likely cut marks. Further analysis on fainter marks is required for this assemblage.

Composition of Fauna/Species Present

Out of 212 specimens studied, 152 were identifiable to family or species and an additional 8 were identifiable to order. The assemblage includes chicken, turkey, pintail duck, cattle, sheep or goat, pigs, and sea turtles. The identifications are listed in table

[427] Renfrew and Bahn 2004, 290.
[428] Rixson 1989 50. Clegg (2017, 30, 42-3) includes a comparative example of a butchered distal cattle femur with multiple cleaver miss marks and clever marks on a distal cattle humerus.

B2. Sea turtles were the most common specimen followed by cattle. All of the taxa identified are known historically from Port Royal markets. Sailors in the 17th century often supplemented the ship's stores with the meat of marine turtles.[429] Turtles were hunted and then kept in turtle crawls prior to their consumption.[430] The other taxa, chicken, turkey, duck, cow, sheep/goat, and pig are also reported in historical documents as being eaten and sold at Port Royal.[431]

An analysis of specimen type by age was performed. Specimens of Cheloniidae, *Meliagris gallapavo*, and bovids were biased towards adult individuals. This may be partially biased by the fact that two of the three unidentifiable Artiodactyla specimens were unfused and thus likely to have belonged to juveniles, it is possible they belonged in the bovid group. Caprinae were almost equally divided between the two age groups. Markers such as fusion of the long bones, spur core development, and size were all used as factors to age the specimens.

[429] Armitage 1989, 147.
[430] Smith 1981, 38-40.
[431] Pawson and Buisseret 2000, 103.

Table 6. Taxa identified for 212 specimens from Port Royal.

Family or Species	Number of Specimens
Gallus gallus (chicken, z)	5
Meleagris gallopavo (turkey, t)	3
Anas acuta (pintail duck, d)	1
Bos taurus (cow, c)	37
Caprinae (sheep/goat, g)	18
Sus scrofa (pig, p)	3
Chelonioidea (sea turtle, s)	85
Identified to Order	
Galliforme (b)	5
Artiodactyla (a)	3
Unidentified Specimens	**52**

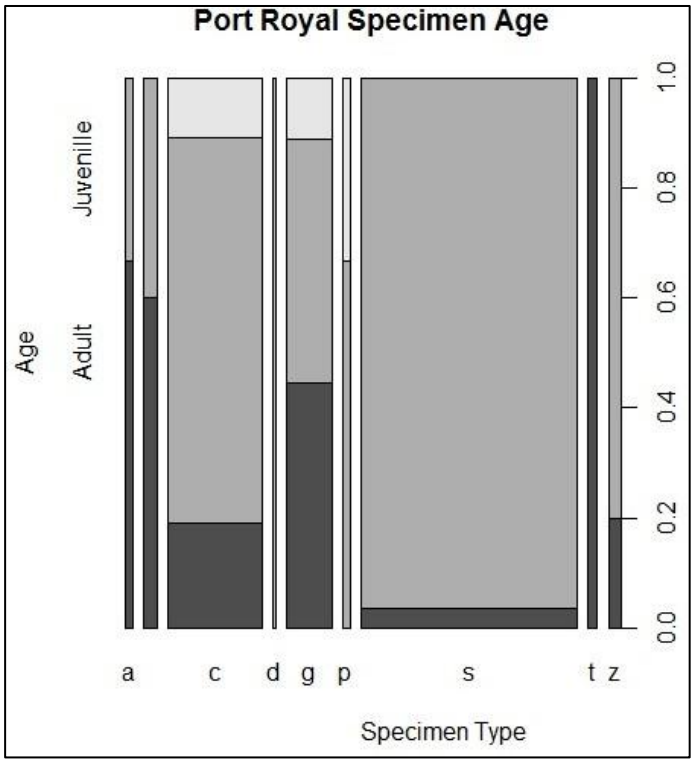

Figure 7-9. Taxa by age of the Port Royal specimens studied in 2015. Letter key in table 5 above.

APPENDIX C: TURTLE BONE (CITB) SITE SUPPLEMENT

Methodology

In 1998, a Cayman Islands National Museum team led by Dr. Margaret Leshikar-Denton performed a walking survey of parcels 75 and 74, at Rum Point on the north shore of Grand Cayman Island.[432] Cultural material and faunal material (including bone preliminarily identified by the team as marine turtle) was observed in the deposit.[433] After the initial survey was completed and a preliminary site map was generated, they began excavating. A shovel test grid was also laid out, and a shovel test pit survey was completed. In each 1 x 1 m excavation unit, trowels and brushes were used to remove sand and sediment.[434] Large faunal remains and clusters of faunal remains were photographed in situ prior to their removal. More complete elements found associated with other cultural remains were pedestalled prior to their removal to preserve their relational context to other remains uncovered in that feature.[435] A few bone specimens determined too fragile to move were consolidated before extraction with a PVA mixture, which allowed for their safe recovery and minimized the amount of specimen refitting required during the post excavation zooarchaeological analysis. The sediment was also screened to optimize the recovery of small artifacts and bone fragments.[436]

The faunal assemblage from the CITB Site was compared to photographs of the Zooarchaeological Research Collection at Texas A&M University, the *CITES*

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[432] CINM 1998-2000a; Leshikar-Denton and Adams 1998.
[433] Leshikar-Denton and Adams 1998.
[434] Leshikar-Denton 1998; Leshikar-Denton and Adams 1998.
[435] CINM 1998-2000b; CINM 1998-2000c; Leshikar-Denton and Adams 1998.
[436] Leshikar-Denton and Adams 1998.

Identification Guide for Turtles & Tortoises for identification, Cannon's *Marine Fish Osteology: A Manual for Archaeologists*, reference photographs of Cheloniidae specimens from the Smithsonian National Museum of Natural History taken by the author, and the digital reference collection of archaeological fish bone from the University of Sydney.[437] Where possible, specimens were identified to species, although less complete specimens were identified to order level. Data I recorded during analysis of the assemblage included: element type and part, degree of weathering, surface modification including the presence or absence of butchery marks, degree of completeness, side, and age where possible. Original excavators recorded the provenance by feature and lot, as well as generated maps.[438] During my faunal analysis in 2017, I assigned catalog numbers to specimens. These catalog numbers were created in the following manner: feature/lot number + Bag Number + Specimen Number (in order of analysis). For example, a hypoplastron fragment from feature 7, bag 1, that was the first specimen analyzed from that bag would be recorded as 070101. Specimens which were able to be rejoined were given a single catalog number.

Quantitative Data

Out of 1,980 specimens, 792 were too small or damaged for identification. Bulldozer activity on the site prior to excavation pulverized many of the specimens. Taxa identified included: Galliformes (chicken or turkey), Testudinidae (primarily sea turtle),

[437] CITES 1999; Cannon 1987; Sydney Fish Project 2011-2020.
[438] Locality data was recorded in site inventories, CINM 1998-2000c; Leshikar-Denton and Adams 1998.

Actinopterygii (ray-finned fishes including cod and snapper), Artiodactyla (cattle and small artiodactyla), and a single rodentia mandible (rodent) (Table 7). MNI was calculated in the same manner as the Port Royal assemblage, by taking the most common element, siding it, and using the most common side as the value for MNI.

Table 7. CITB Site, Grand Cayman species list.

Taxa	NISP	MNI
Indeterminate mammal	21	
Indeterminate rodent	1	1
Indeterminate artiodactyla	5	
Bos taurus	3	1
cattle		
Indeterminate bird	1	
Galliformes	5	2
Chicken or turkey		
Indeterminate large turtle	306	
Cheloniidae	750	6
Sea turtle		
Chelonia mydas	27	10
Green sea turtle		
Actinopterygii indeterminate	16	
Ray-finned fishes		
Perciformes indeterminate	1	1
Perch-like fishes		
Lutjanus sp.	2	1
snapper		
Gadidae	1	1
Cod family		
Bivalvia indeterminate	1	
Mytilidae	30	
Mangrove Oysters		
Strombidae	3	
Conch family		
Indeterminate Mollusc	14	
Intrusive: Actinopterygii	1	
Unidentified	792	
Total	1980	

A number of specimens exhibited modifications that included cut or chop marks, burning, and rodent gnawing. The significance of these modifications was discussed in Chapter 5. Table 8 presents this data.

Table 8. CITB site, Grand Cayman number of specimens with modifications.

Taxa	Gnawed		Cut	Chop	Burned
	Rodent	Carnivore			
Indeterminate mammal					
Indeterminate rodent					
Indeterminate artiodactyla			4		
Bos taurus			1		
cattle					
Indeterminate bird					
Galliformes					
Chicken or turkey					
Indeterminate large turtle	7		1		41
Cheloniidae			5	1	
Sea turtle					
Chelonia mydas	2		6	1	
Green sea turtle					
Actinopterygii indeterminate					
Ray-finned fishes					
Perciformes indeterminate					
Perch-like fishes					
Lutjanus sp.					
snapper					
Gadidae					
Cod family					
Bivalvia indeterminate					
Mytilidae					
Mangrove Oysters					
Strombidae					
Conch family					
Indeterminate Mollusc					
Intrusive: Actinopterygii					
Indeterminate animal bone	2		3		2
Total	11		20		43

Finally, humerus diameter for *Chelonia mydas* was used to calculate straight carapace length (SCL) at time of slaughter. Humerus diameter and calculated SCL is represented in Table 9. Some humerus specimens did not have the diaphysis preserved so no SCL calculation was possible and has been signified as N/A in the table.

Table 9. CITB site, Grand Cayman calculated straight carapace length (SCL) from humerus diameter for Cheloniidae. Formula used: SCL=0.643+2.326X (where X=humerus diameter in mm and SCL is in cm), from Zug et al. 2002, 117-27.

Specimen No.	Medial Shaft Diameter (in mm)	Calculated SCL (in cm)
100101	38.38	89.915
101.1.4	39.43	92.357
101416	N/A	N/A
101417	38.32	89.775
101418	37.33	87.473
101419	39.30	92.055
101302	N/A	N/A
101301	45.45	106.360
101106	N/A	N/A
092001	36.3	85.077
104.2.4	37.59	88.077
104.2.3	38.22	89.543
102.6.1	38.81	90.915
104.2.2	39.28	92.008
075.5-1.2	N/A	N/A
030104	41.70	97.637
030101	39.08	91.543
104.2.1	39.78	93.171

Taphonomy of the Sample

In general, all of the faunal material was heavily weathered. Rum Point, where the site is located, is part of the Ironshore Formation, which consists of reef limestones,

calcarenites, and oolitic limestone that are all fairly friable. This area is also a prograding carbonate sand beach system, resulting in fine-grained sediment beaches.[439] The basic nature of this sediment was more favorable for the preservation of bone than more acidic environments; however, other factors led to the degradation of the faunal material at the site.

The majority of the assemblage exhibited considerable weathering resulting in bleaching and cracking, which occurs when faunal material is left exposed on the surface.[440] Weathering was present in specimens from both surface and subsurface contexts, suggesting that after initial deposition the faunal material was left exposed, or semi-exposed for a considerable length of time and was likely naturally covered in sediment. The assemblage was also disturbed by local flora and fauna. A significant amount of material had eroded grooves from plant roots and several even had roots growing throughout the cancellous bone. This root turbation contributed to the fragile and friable condition of many of the specimens. The site was not deeply buried.[441] This means that the faunal elements would have experienced regular wetting and drying from the elements (rain), which further produced some of the mechanical weathering observed.

The Rum Point ecosystem also supports several animals, that disturbed the Turtle Bone Site. Of the specimens with preserved surface material, 22 exhibited rodent

[439] Brunt and Davies 1994, 29, 90.
[440] Nagoaka et al. 2008, 484.
[441] Leshikar-Denton and Adams 1998.

gnawing. Local rodent species include the agouti (*Dasyprocta punctate*), although this animal is too large to have created the gnaw marks, house mouse (*Mus musculus*), black rat (*Rattus rattus*), and Norway rat (*Rattus norvegicus*) are also found on the island and could have produced the gnaw marks.[442] There are also a variety of crabs present on the island, which can cause sediment turbation at the site.[443]

As mentioned above, development activity dramatically impacted the site. This activity involved the use of bulldozers to move sand into two distinct piles. The result was a very high number of secondary breaks, identifiable by the unweathered nature of these fractures. While mends were possible with a few specimens, this activity dispersed the assemblage as well as pulverized an already friable assemblage. Represented in the quantitative data, this dramatically effected the NISP, making it difficult to conduct future comparative studies with similar sites. However, with the help of museum volunteer Christopher Fletcher, specimens were weighed. This data could be useful if other sites with similar taphonomic processes are discovered.

Intrusive Material

One Actinopterygii specimen was clearly identifiable as intrusive. It exhibited no weathering and was white in color compared to the brown-tan discoloration found uniformly among the rest of the faunal elements.

Cultural Material

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[442] Morgan 1994, 455-7.
[443] Hess, Abbott, Hamann, Meyer, Millen, Gosliner, Sefton, and Hanlon 1994, 147.

The cultural material was discussed at the beginning of Chapter 5. Table 10 below includes of all the material recovered. The data in the table was compiled from the initial artifact inventories created by Dr. Leshikar-Denton and team during the excavation of the CITB site, and may see modification as more analysis is completed.[444]

[444] CINM 1998-2000c.

Table 10. Cultural material from CITB site collated from original site inventory.

Artifact	Feat. 5	Feat. 7	Feat. 9	Feat. 10	Lot 100	Lot 101	Lot 102	Lot 103	Lot 104	Lot 201	Lot 202	Lot 203	Lot 204
CERAMICS/COOKERY													
Coarse earthenware			2	8	13	2	4	3	46		3	1	
Glazed earthenware			1	1	5		2	2	4			1	
Olive jar sherd					1	5		2				2	
Stoneware								4	3				
Rhenish gray stoneware					1			1	3		1		
Majolica sherd					3		2						
Enamel ware fragment				3				1	6				
Iron cooking pot fragment								4					
Green glass core gin bottle fragments								1	1				
Green glass wine bottle fragments								2					
Onion bottle fragments		1	1	9	3	1	2	10	9		37		
ORGANIC REMAINS													
Charcoal								1					
Misc. worked wood											1		
PERSONAL ITEMS													
Pipes or pipe fragments	1		1	5	3	2	4	1	35				
Brass button									1				
MUNITIONS													
Sword hilt fragments								3					
Brass gun side plate									1				
Brass trigger guard								1					
Gun flint								1	1				
TOOLS													
Iron harpoon point					1								
Axe head (iron)					1								
Iron strap or blade						1	3						
Lead weight								1					
Iron lock fragments (?)								1					
ARCHITECTURAL													
Misc. iron or nails			1	11	2		2	3	34				
Daub fragment					1								
Brick				2				2	1				
MISCELLANOUS													
Ballast stone									2	4	8	2	2
Misc. flint fragments									2				
Cuprous metal hinge											1		
Misc. cuprous metal									1				

Table 11. Cultural material from CITB site continued.

Artifact	Feat. 5	Feat. 7	Feat. 9	Feat. 10	Lot 100	Lot 101	Lot 102	Lot 103	Lot 104	Lot 201	Lot 202	Lot 203	Lot 204
MISCELLANOUS CONTINUED													
Sheet lead fragments								1					
Lead fragments					1				1				
Iron ring					1		1	1					
Misc. metal									1				
Clear glass fragment									1				

Selected Cheloniidae Specimens from CITB site

FEATURE 2

Specimen No: 020201
Element: Femur, right

Notes: Example of damage caused by plant growth.

Photo by author.

Figure 7-10. Specimen 020201.

FEATURE 3

Specimen No: 030101
Element: Humerus, left

Notes: The interior of the break is less weathered than the rest of the bone. Lower image is a closeup of a cut mark on humeral head.

Photos by author.

Figure 7-11. Specimen 030101.

Specimen No: 030104
Element: Humerus, right

Notes: Similar to specimen above (030101) The interior of the break is less weathered than the rest of the bone. Lower image is a closeup of a cut mark on humeral head.

Photos by author.

Figure 7-12. Specimen 030104.

FEATURE 8

Specimen No: 080104M
Element: Carapace fragments (21)

Notes: Examples of friable carapace fragments.

Photo by author.

Figure 7-13. Specimen 080104M.

Specimen No: 080301
Element: Coracoid

Notes: Rejoined coracoid. Example of secondary breaks likely caused by development activity.

Photo by author.

Figure 7-14. Specimen 080301.

FEATURE 9

Specimen No: 092601
Element: Plastron fragment

Notes: Burned

Photos by author.

Figure 7-15. Specimen 092601.

APPENDIX D: LIST OF PERIODICALS CONSULTED & SELECTED

TRANSCRIPTS

American Newspapers:

Frank Leslies Weekly, New York, NY 1855-1922. https://www.loc.gov/item /sn%2086090491/ accessed 24 May 2020.

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The New-York Evening Post, New York, NY, -1934. https://lccn.loc.gov/sn83030386 accessed 24 May 2020.

The New-York Gazette, New York, NY, -1767. https://lccn.loc.gov/sn84024360 accessed 24 May 2020.

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The Norwich Packet, Norwich, CT, -1779. https://lccn.loc.gov/sn82016117 accessed 24 May 2020.

The Pennsylvania Chronicle, or, *Universal Advertiser*, Philadelphia, PA, -1774. https://lccn.loc.gov/sn83025893 accessed 24 May 2020.

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The Pennsylvania Ledger, or, *the Weekly Advertiser*, Philadelphia, PA, -1777. https://lccn.loc.gov/sn83025897 accessed 24 May 2020.

The Pennsylvania Mercury, Philadelphia, PA, -1791. https://lccn.loc.gov/sn84026234 accessed 24 May 2020.

The Pennsylvania Packet, or, *Daily Advertiser*, Philadelphia, PA, -1790. https://lccn.loc.gov/sn83021129 accessed 24 May 2020.

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British & Irish Newspapers:

The Daily Journal, London, UK, 1725-1837. https://lccn.loc.gov/sn93048039 accessed 24 May 2020.

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The General Evening Post, London, UK, 1748-1790. https://lccn.loc.gov/2010218006 accessed 24 May 2020.

The Graphic, London, UK, 1869. https://catalog.hathitrust.org/Record/000533840/Home accessed 24 May 2020.

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The Whitehall Evening Post or, *London Intelligencer*, London, UK -1802. https://lccn .loc.gov/sn88088586 accessed 24 May 2020.

Other International Newspapers

Bombay Courier, Bombay, India, 1790-1847. https://www.loc.gov/item/sn88063490/ accessed 24 May 2020.

Transcripts of Newspaper Items

Below are the compiled transcripts for newspapers cited or quoted in the text, along with additional transcriptions of newspaper items to provide supplementary context. The excerpts are divided into British/Irish Newspapers and American Newspapers, and are further organized chronologically. For illegible letters, "#" has been used as a placeholder.

British/Irish Newspapers

Newspaper	Date	Issue	Item Title	Text
London Evening Post	27 June 1730	399	Ship News	*St. Christopher's*, *May* 12. Two English Ships and a French Schooner, which were catching Turtle, have lately been taken by a Spanish Guard da Costa; but one of them, Chapman, Master, was released, after plundering her. The Margaret is arrived here from Guiney; but Capt. Pamphlet, who commanded her, died on the Coast.
The Daily Journal	29 June 1730	2957	Saturday arrived mail from Lisbon, June 10. N.S.	*St. Christopher's*, *May* 12. Two English Ships and a French Scooner, which were catching Turtle, have lately been taken by a Spanish Guard da Costa; but one of them, Chapman Master, was released, after plundering her. The Margaret is *arrived* here from Guiney, but Capt. Pamphlet, who commanded her, died on the Coast. The William and Mary, Whitwood, the Richmond, Gordon and the Fortune, Jones, are *ready to sail*; the Mary, Mc Dowall, and the Isaac and Peter, Henderson, *may sail* before the end of the Month; as may the McDowall, Milliken, for Glasgow.
The Daily Post	28 May 1742	709	Extract of a Letter from Antigua, March 14	On the 22nd of February last a Spanish Boat came up to the Island of Tortola, landed in the Night, seiz'd a poor White Man in his House, tied him and carried him and all he had, with two Negroes, aboard their Boat; then went farther into the Country and took Negroes from several, and inhumanly kill'd and cut to Pieces one or two who endeavour'd to escape; they carried off between 20 and 30 Slaves in all. About three Weeks ago an Account came up here that a Spanish Privateer, a Ship of 24 Guns, and 250 Men, with a Sloop in Company, of 12 Guns and 80 Men, were turning up amongst the Islands, and design'd to attack Spanish Town; if they missed of that to cruize to Windward of these Islands. This Account was given by a Dutch Sloop, a Turtler, whom they took, and from him 50 of his Turtle. Since that the said Privateer, and another Schooner were seen amonst the Islands between Spanish Town and St. Martins. Our Men of War were at Barbadoes when this Account came up from Leeward and reported the same, and the Captain said he was very near the Ship, which he took to be a Dutch-built vessel, and to be the very Privateer menton'd. Capt. Smith in the Eltham, and Capt. Stewart in the Lively Men of War, being just come down from Barbadoes, upon the latter report of these Vessels, they immediately sail'd, and are gone in Search of them: It's hop'd they will meet with them, and conduct them into one of our islands.

Newspaper	Date	Issue	Item Title	Text
The Daily Advertiser	10 Aug. 1751	647	The Master of Kendall-House at Isleworth	The Master of Kendall-House at Isleworth, having had a Present of a fine large Turtle or Tortoise, it is intended to be dressed there on Tuesday next, at Two o Clock, at which forty Gentlemen are invited to dine, at 5 a Head. Those who propose to honour him with their Company, are desired to have their Names at Mrs. Deard's Toyshop, in the Strand; at Peele's Coffe-House, the Corner of Fetter-Lane, Fleet-Street, at the Pennsylvania Coffee-House in Birehin Lane; or at Kendall-House. Note, Publick Breakfasting every Monday and Friday, as usual, during the Summer Season.
The General Advertiser	25 Sept. 1751	5283	With his Majesty's Royal Licence	With his MAJESTY's Royal Licence. *This Day is publish'd, Price* 4s. *Stich'd.* 5s *bound,* (*The Fourth Edition, with the Additikon of dressing a Turtle the true Indian Way, as it is now done by one of the best Cooks, and to make Ice Cream*) THE ART of COOKERY, made plain and easy: *Wrote by a* LADY *from her own Experience…*
The London Evening Post	23-25 July 1752	3864	A few Days ago William Beckford, Esq	A few Days ago William Beckford, Esq; Alderman of Billingsgate Ward, made a Present of a very fine Turlte to the Deputy and Common-Council-Men of his Ward, which was dress'd Yesterday at the Gun Tavern at Billingsgate, when Alderman Benn, Alderman Blachford and several other Worthy Gentlemen were present.
The Public Advertiser	11 Aug. 1753	5862	Annapolis in Maryland, June 7	*Annapolis in Maryland, June* 21. We hear from Sommerset County, that at a special Court of Oyer and Terminer, held there a few Days ago, a free Mulatto, who was concerned in the late intended Insurrection, was ordered to be whipp'd and pilloried, and a Negro to suffer Death. Last Week a Turtle weighing 90 lb. was taken with a Hook and Line as far up our Bay as the Mouth of Chester.
The Daily Advertiser	16 Aug. 1753	7046	To be Sold	*To be* SOLD A Fine large green Turtle, very brisk and lively, just arriv'd from Jamaica, and now on board. Please to enquire of Charles at Lloyd's Coffee-House in L##bard-Street.
The Daily Advertiser	1 Sept. 1753	7060	London	Several Vessels arriv'd from Jamaica, and many more expected, very short of their Lading. The Crops in that Island not answering the sanguine Expectations of the Planters. Yesterday a Turtle, weighing 350 lb. was eat at the King's Arms Tavern in Pall-Mall: The Month of an Oven was taken down to admit of that Part which was to be bak'd.

Newspaper	Date	Issue	Item Title	Text
London Evening Post	6 Sept. 1753	4029	London	We hear, that last Week Alderman Beckford gave a very elegant Entertainment to the Bugesses and Freemen of Bedford, among which was a Turtle of 200 lb. Weight; and at the same time was admitted a Burgess of that Corporation, to the Joy of all who wish well to Christianity, Trade, and the British Constitution.
The Daily Advertiser	13 Sept. 1753	7070	To be Sold	*To be* SOLD A Fine live young TURTLE, at Anna Armstron's, the upper End of Duke-Street, Spittlefields.
The Public Advertiser	23 Oct. 1753	5924	This Day is published	*This Day is published, Price* 2 s. 6 d. few'd, THE FORTUNE HUNTERS: Shewing (from Experience) I. How People may improve their Fortunes, and raise themselves in London, by different and quite opposite Ways. 2. How Servants, of various Denominations, may obtain the Favour of their Masters and Mistresses, the Love of their Fellow-servants, the Esteem of all People, and gain Preferment. 3. Many useful Instructions and Receipts for a great Variety of Businesses; as brewing, Gardening, Making Wines, Dressing a Turtle, and Victuals of all Sorts, &c. &c. 4. The Most distinguishing Characteristics of the several Sects and Professions of Religion in this great City; with some Queries proposed to the Atheistical Clubs. 5. How pernicious some Epidemic Vices practiced in London are to the Welfare of Society; with Proposals for the Suppression thereof. Being a Guide to such as are Strangers to the Ways and Customs of London. By JOHN BREUES, *late of Porth, Merchant, &c.* Printed for the Author; and sold by J. Robinson, at the Golden Lion in Ludgate-street; J. Fox, in Westminster-hall; W. Shrapshire, in New Bond-Street; J. Swan, against Northumberland house in the Strand; and at all the Booksellers and Pamphletshops in Town and Country.
The London Evening Post	9-12 March 1754	4108	London, To the Author, &c.	Wednesday last died of an Apoplexy, as he was eating very hearty of Turtle, Mr. Joseph Bacon, an eminent Hosier in the City of Wells. –This Man the Week before eat [sic] two Shoulders of Mutton for a Wager of 100 Guineas, between himself and one of the same Trade.
The Public Advertiser	6 May 1754	6091	For Sale by the Candle	For sale BY THE candle, At the NEWCASTLE Coffee house on St. Mary Hill, Billingsgate, *Wednesday May 8, exactly at Twelve o'Clock* THE TURTLEAR Fishing Sloop, River built, with a large well, and not two Years old, Burthen 60 Tons more or less, and has an exceeding good Inventory, now lying in the Wet Dock at Blackwall. Inventories to be had on board, at the plac of Sale and of ######### SAMUEL BROOKS, Broker

Newspaper	Date	Issue	Item Title	Text
The Public Advertiser	31 July 1754	6162	London	Yesterday the Right Hon. The Early of Holdernesse gave an elegant Entertainment to several Persons of Quality at his House in Arlington-street: it consisted of a large Turtle, &c. dress'd in the polite Manner.
The Dublin Journal	3 Aug. 1754	2847	Dublin	Capt. Butler, Commander of the Anne and Betty of Liverpool, hath brought three young Turtles here from the West Indies; they were preserved alive during the Passage in a large Hogshead of Sea Water, and one of them, which was purchased for the Entertainment of some Gentlemen, laid several eggs.
The Whitehall Evening Post Or, London Intelligencer	22-24 Aug. 1754	1291	London Intelligence	On Tuesday arrived in the River the Early of Chesterfield, James Lindsey, from Boulonge in Seventeen Hours, after safely landing the grand Present of Turtle for the King of France, Prince of Conti, &c.
The Public Advertiser	10 Sept. 1754	6194	London	Last Monday a Turtle, which weighed 107 pounds, a Present to Mr. White, Merchant in Abbey-street, was dressed by Mr. Ryan, Cook to the Lord-Mayor, at the Phoenix Tavern in Werburgh Street. What was pretty remarkable, it lived four Hours after the Head was cut off.
The Whitehall Evening Post Or, London Intelligencer	26-28 Sept. 1754	1306	Postscript	Yesterday Alderman Beckford gave an elegant Entertainment of Turtle, &c. to the Captains trading to his Plantations at Savanna in Georgia.
The Whitehall Evening Post Or, London Intelligencer	5-8 Oct. 1754	1310	Paris, Sept. 26	We learn from the Abbey of Louvaux, four Leagues from Vannes in Britanny, that on the 24th of July last some Fishermen brought thither a live Turtle which weighed 700 or 800 lb. The Head weighed 25 lb. and one of its Fins 12 lb. The whole Community made four plentiful Dinners of the Liver alone, and thirty Servants and Labourers made a good Meal of what was left of it; so that it dined upwards of 100 Persons. When the Head was cut off it bled eighteen Pints. Its Length from the Snout to the Tip of the Tail was eight Feet and some Inches. The Shell, which is preserved in the Abbey, was five Feet in Length; but has decreased near two Inches in drying. From the Extent of one Fin to the other it measured eight Feet. About 100 lb. of Fat was taken out of it, which, when suffered to cool, had the Consistence of Butter, and relished very well. Its Flesh resembles that of a three Years old Steer; but it has a Smell of Musk which strikes those who eat of it. This Turtle was taken of the Isle of Re.

Newspaper	Date	Issue	Item Title	Text
The London Evening Post	2-5 Nov. 1754	4210	This Day was publish'd	*This Day was publish'd,* (Price ONLY Eighteen Pence bound) (*Being the cheapest and best Book of the Kind and Price, and of which Ten Thousand of fromer Editions have been sold)* THE FAMILY JEWEL, AND COMPLETE HOUSEWIFE'S COMPANION; or, The whole Art of Cookery made plain and easy, Containing about Four Hundred Receipts, in Cookery, Pastry, Pickling, Preserving, Candying, Potting, Collaring, great Variety of Puddings, Soups, Broths, Sauces; Cake-Soap for Pocket, Cakes, Jellies, Creams, and other Confectionary; English Wines, Cider, Mead, Vinegar, Verjuice, Ketchup, fine Beer, Ale, to preserve a Stock of Yeast, to dress British Pickled Herrings, also a Turtle to Perfection; Directions for Marketing; to clean Plate, Gold and Silver Lace, take Ironmoulds and Mildew out of fine Linen or Lace, to clear a Room from Bugs; some of the best Physical Receipts, and other Articles most useful for Families. By Mrs. BRADSHAW, *Housekeeper to a Noble Family many Years*. The SIXTH EDITION, with Remarks, by a London Pastry-Cook of great Experience, Also Two hundred new Receipts, and a Bill of Fare for every Month in the Year. Printed for R. Whitworth, at the Feathers in the Poultry, and sold by all Booksellers and News Men.
The Public Advertiser	14 June 1755	6446	Ireland	A Turtle of an extraordinary Size, is brought over from Antigua, as a Present to the Lord Lieutenant.
The Public Advertiser	19 June 1755	6450	Salisbury, June 16	On Wednesday last the Hon. Mr. Bouverie, and Julines Beckford, Esq; our Representatives in Parliament, entertained the Mayor and Corporation, and such of their Friends as they pleased to invite, at the Antelope Inn, with a fine Turtle, a fat Buck, and about sixty other Dishes, the most elegant the Season could produce; and in the Evening made a grand Ball for their Ladies in the Council Chamber, to which the neighbouring Nobility, and principal Gentlemen and Ladies of the City and Close, were also invited; and between three and four Hundred in the Whole, about Six o'Clock, made their Appearance…

Newspaper	Date	Issue	Item Title	Text
The London Evening Post	28-30 Aug. 1755	4338	Necessary for all FAMILIES	As Also a proper Present for Servant Maids: Being the plainest and cheapest BOOK of the Kind. *This Day was publish'd,* Neatly printed on a fine Paper, and new Letter, (Price bound One Shilling and Six-Pence) The SECOND EDITION, with large and useful Additions: Among a great Variety, too numerus to mention, are the following Particulars, viz. To dress a Turtle, Tables ready cast up, from One Farthing to Ten Shillings: Very useful for Marketing, and adapted to the lowest Capacity, with several new Cuts, THE DIRECTOR: Or, Young Woman's Best Companion: Containing above Three hundred easy Receipts in Cookery, Pastry, Preserving, Candying, Pickling, Collaring, Physick, and Surgery. To which are added, Plain Fowl, and all other Eatables: Also Directions for Carving, and Made Wines: Likewise Bills of Fare for every Month in the Year. With a complete Index to the Whole. By SARAH JACKSON….
The London Evening Post	9-11 Sept. 1755	4343	This Day was publish'd, Price 2 s. 6 d.	*The* SIXTH EDITION, *revised and corrected*, To which is now added, Several modern Receipts, by very good Judges of the separate Articles, particularly to dress Turtle, &c., Also, Every one their own Physician; a Collection of the most approved Receipts for the cure of most Disorders incident to Human Bodies. Carefully compiled by Mary Morris. THE HOUSE-KEEPER'S POCKET-BOOK, And complete FAMILY COOK. Containing above Twelve hundred curious and uncommon Receipts in Cookery, Pastry, Preserving, Pickling, Candying, Collaring, &c…
The Public Advertiser	19 Sept. 1755	6529	London	Yesterday the Common Council of the Wards of Farringdon within and withoat, were entertained at the Half-moon Tavern in Cheapside, with Turtle and Venison, by Richard Beckford, Esq; Alderman of Farringdon without.
The London Evening Post	9-11 Sept. 1762	5437	London	We hear from Kingston, near Abingdon in Berkshire, that the birth of the Prince was celebrated there on Tuesday last, by a most elegant entertainment at the Hind's Head, at which almost all the Gentlemen and Ladies of the Vale were present. Mr. Pye, of Farringdon House, one of the Knights of the Shire, gave a Turtle, and Mr. Blandy a Buck. The company amounted to upwards of fifty, and the day concluded with a Ball under a most beautiful temporary building erected for that purpose on the adjacent Bowling Green…
The Public Advertiser	18 Sept. 1762	8698	London	On Wednesday some West India Merchants made a Present to his Royal Highness the Duke of Cumberland of a fine large Turtle, which was gratefully received.

Newspaper	Date	Issue	Item Title	Text
The London Chronicle	8 Sept. 1763	--	Guildford, Sept. 5	This day was given, at the White Hart Inn, by Mr. Lawrence Ledge, Mayor of this Corporation, and elegant entertainment, consisting of a turtle, a brace of bucks, with a great quantity of other game, &c. and a handsome desert: At which were present Lord Onflow, Lord Middleton, Sir Francis Vincent, Col. Onflow, members of the county, Sir John Elwill, George Onflow, Esq; members for the twon, Sir Anthony Aldy, Bart. together with most of the neighbouring Gentlemen, Clergy, &c.
London Evening Post	9 June 1764	5712	London	On Saturday came on, in the court of Common Pleas, before the Lord Chief Justice Pratt, and a Special Jury, a cause, wherein an eminent Merchant was plaintiff, and a Scotch Baronet defendant, for an assault, occasioned by a dispute about the property of a turtle delivered wrong by mistake; when, after the Jury had been out a considerable time, they brought in a verdict for the plaintiff, with 200 l. damages, which the plaintiff generously ordered to be paid to a public charity.
London Evening Post	7 July 1764	5724	London	Last week a fine large turtle of 25 lb. weight, was made a present of by a West-India Merchant to his Royal Highness the Duke of Cumberland. **[25 lb is likely a typo, the *Doublin Public Register* or *Freemans Journal* in "London," 17 July 1764 reports the turtle as being 250 lb.]**
The Public Advertiser	18 July 1764	9273	Stolen from on Board	STOLEN from on board the SINCERE FRIENDS, Captain Thomas Adams. Who is just arrived from Barbados, lying at Rotherhithe Stairs, a very fine green Turtle, about 60 Pounds Weight, more or less, with three Holes through the hinder Part of the Shell. If offered for Sale, it is desired to be stopped and the Person that offers it, and three Guineas will be paid Reward by the said Captain Adams, in Paradise Row, Rotherhith, or at Lloyd's Coffee-house in Lombard-street, for the Turtle again.
The St. Jame's Chronicle or *The British Evening-Post*	24 July 1764	529	London	Yesterday Lord Bute made her Royal Highness the Princess Dowager of Wales a Present of a very fine Turtle.
London Evening Post	25 July 1764	3864	London	A few Days ago William Beckford, Esq; Alderman of Billingsgate Ward, made a Present of a very fine Turtle to the Deputy and Common-Council-Men of his Ward, which was dress'd Yesterday at the Gun Tavern at Billingsgate, when Alderman Benn, Alderman Blachford and several other Worthy Gentlemen were present.

Newspaper	Date	Issue	Item Title	Text
The Public Advertiser	13 Aug. 1764	9297	London	About three Weeks ago there was taken near Beere on the Devonshire Coast, a Sea Turtle, about seven Feet long; its fore Fins were a Yard long; its Head was as large as a Man's Head; and its Weight was guessed to be half a Ton; the Shell of it had 5 or 6 parallel Seams or Ridges which run from End to End: It was entangled in the Lines of some Lobster Pots, and by that Means taken.
The Dublin Journal	1-4 Sept. 1764	3898	London, August 18	A few Days since, Mr. Quin dined with a noble Peer in Great George-Street, Westminster; and notwithstanding his advanced Age, was remarkably lively, and gave evident Proofs that his genuine and peculiar Talent for Humour has not left him. He afterwards set of in a Post Chaise for Bath; in which he appeared in State and true Character, having with him two very desirable Companions, a Haunch of Venison on one Side of him, and a Turtle on the other, presented to him by his Lordship.
London Evening Post	18-20 Sept. 1764	5755	London	On Thursday Last Mr. Gast, at the Three Lions in Salisbury, entertained the Corporation and Clergy of that city in an elegant manner, with a turtle, presented him by the Righ Hon. The Earl of Pembroke.
The London Chronicle or *Universal Evening Post*	20-22 March 1764	1131	London	On Monday was launched at Limehouse, for the service of the Honourable East India Company, a fine new ship, called the Kent, to be commanded by Captain Mills; after which the Captain gave a very elegant entertainment, and a ball, to upwards of one hundred gentlemen and ladies, at the Crown and Anchor in the Strand. What was very remarkable at this season of the year was a fine large green turtle dressed on the above occasion.
The Gazetteer and *New Daily Advertiser*	24 July 1765	11346	Just Arrived	Just arrived from the Bahama islands, in a very short passage, and to be sold on board the sloop Sarah and Elizabeth, lying off the Tower, A parcel of very fine Turtle of various sizes, between ten and one hundred pounds; also some good mahogany logs, plank, table boards, and pieces for bedsteads, in any lot or parcel; and a small quantity of yellow boxwood.
The Gazetteer and *New Daily Advertiser*	20 Sept. 1765	11396	London	Last Saturday John Paterson, Esq; member for Luggarshall, gave an elegant entertainment at Chelsea, consisting of a fine turtle 160 lb. weight, a buck &c. &c. at which were present Lord Cadogan, Sir Richard Glyn, Lady Glyn, Sir Thomas Robinson, and other persons of fashion, to the amount of almost 50; who spent the day in the most agreeable manner imaginable.
The Public Advertiser	18 Dec. 1765	Print not legible	Intelligence Extraordinary	WE hear a Turtle, weighing near 300 lb. will be drest in the Christmas Holidays at a large Meeting in the Neighbourhood of Cambridge; but very few of the Doctors and Masters of Arts are expected; and such only will be invited as can roar Catches. Such of them as sing Catches only are desired after one Bumper of Port Wine to -----, drink nothing but Bottled Beer. Jimmy Twitcher promises much Ribaldry and Buffoonery upon this Day;

Newspaper	Date	Issue	Item Title	Text
The Gazetteer and *New Daily Advertiser*	21 June 1766	11631	London	Thursday last the West-India merchants (and not the Commissioners of Sewers as mentioned by mistake in some of the papers of yesterday) gave a grand entertainment to the Right Hon. The Marquis of Rockingham, several of the Nobility, Ministers of state, and other persons of distinction, at the King's arms tavern, Cornhill. A large turtle was dressed on this occasion, which weighed 300 lb. weight.
London Evening Post	8 July 1766	6036	London	Saturday her Royal Highness the Princess Dowager of Wales entertained the Royal Family at dinner, upon a turtle of 150 lb. weight, at Carleton-house.
The Gazetteer and *New Daily Advertiser*	8 July 1766	11645	London	Friday last Mr. Alderman Cracrast gave an elegant entertainment, at which a fine turtle was dressed. Lords Mansfield and Falmouth, and divers other persons of distinction, were present.
The Gazetteer and *New Daily Advertiser*	28 July 1766	11662	London	Yesterday her Royal Highness the Princess Dowager of Wales, entertained the Royal family upon a turtle at Carleton-house.
London Evening Post	2-5 Aug. 1766	6048	London	Sunday her Royal Highness the Princess Dowager of Wales entertained the Royal Family at Carleton-house, upon a turtle of 350 lb. weight.
The St. Jame's Chronicle or *The British Evening-Post*	13-16 Dec. 1766	903	Ireland	*Dublin, Dec. 6* A Turtle was caught on the Coast of Fingal, which measures four Feet in Length, and weighs 500 Weight. This is the first Turtle that ever was taken on this Coast, which makes it much feared that some Ship from the West Indies has been wrecked.
The Public Advertiser	5 Jan. 1767	10040	To the Printer	Sir, I Am not one of those Beings who compose the Tribe of Epicurus. A Barbecued Hog, a Turtle dressed by a Cook of its Country, a Royal Turbot (though they add Lustre to a Table) do not, in my Opinion, conduce so much to the Satisfaction of a keen Appetite as a Piece of Roast Beef…

Newspaper	Date	Issue	Item Title	Text
The Public Advertiser	30 July 1767	10217	London	On Tuesday last the Right Hon. Lord Clive gave a grand Entertainment at the Crown and Anchor Tavern in the Strand, at which 26 Noblemen and other Persons of Distinction were present; a fine Turtle was dressed, which weighed about 500 lb. reckoned the largest brought to England for many Years past.
London Evening Post	11 Aug. 1767	6205	London	We hear from Mountsbay, that a large green turtle of 350 lb. weight, was lately caught there by the Fishermen, with the letters W.R. marked on its shell.
The Public Advertiser	14 Aug. 1767	10230	A Parcel of very fine Turtles	A Parcel of very fine Turtles, lately arrived from New Providence, in a short passage. To be seen and sold on board the Sloop Esther and Ann, Captain Burch, lying of the Tower, and at Mr. Ward's, Number 70, in Mar'c Lane. N.B. There is among those on Shore, one of near 280 lb. Weight. Supposed to be as fine a one as ever was brought to Great Britain: she has laid above 100 Eggs on the Passage, and several since she arrived.
The Gazetteer and *New Daily Advertiser*	5 Oct. 1767	12039	To the Printer (by Fundum Riggidos)	In the present dearness of all kinds of provisions, it must undoubtedly give great satisfaction to the *poor*, as well as *private* families, to be informed that the price of *turtle* is fallen from 4s. 6d. and 4s to 3s. and 2s. 9d. Per pound, which is certainly very reasonable, considering that the shell and other ingestible parts do not weigh above two-thirds of the whole…Yesterday morning Mr. Gorge, an eminent oil man, and one of the Common-council, was found dead in his bed. He had eat [sic] a very hearty dinner the day before of turtle and venison.
The Gazetteer and *New Daily Advertiser*	6 June 1768	12249	London	Saturday Mr. Wilkes entertained his friends with a turtle for dinner, in honour of his Majesty's birth-day.
The Public Advertiser	23 July 1768	10524	London	This Day the Grand Beef-stake Club dine with Mr. Wilkes, at the King's Bench Prison, on a Turtle, that weighs near 150 lb. sent by an unknown Gentleman, supposed abroad.
Lloyd's Evening Post	24-26 Oct. 1768	1764	Postscript London	Friday next being the Birth-day of John Wilkes, Esq; his Committee will dine together, on a fine turtle, at the King's Arms Tavern in Cornhill, in order to celebrate the same.

Newspaper	Date	Issue	Item Title	Text
The St. Jame's Chronicle or *The British Evening-Post*	20-22 July 1769	1310	Postscript London	This Day several of the Supporters of the Bill of Rights dined at the Albion Coffee House, where a fine large Turtle was dressed on the Occasion, and several loyal and constitutional Healths were drank.
Middlesex Journal	25 July 1769	49	London	July 24. Saturday several of the Supporters of the Bill of Rights dined at the Albion Coffee-House, where a fine large turtle was dressed on the occasion, and several loyal and constitutional healths were drank. It is observed, that the first cause of these distracted times, was Mr. Wilkes and the Ministry; from thence between that patriot and the parliament, at the last the dernier resort lies between the ---and the people; a melancholy reflection to think of the consequence, should not some redress be obtained.
The London Chronicler	31 Aug. 1769	1983	A Card	The Garrison of Lisle in Flanders, distant 140 miles from the city of London, and consisting of 11700 of the best troops in the French army, present their compliments to Generals Beckford, Sawbridge, and Townsend, with the forces under their command, and take the liberty to acquaint them, that the said garrison of Lisle will, on Christmas-day next, eat some turtle and roast-beef with the club at the London Tavern, if their Excellencies will first be so good to disband those nuisances in England called the Regulars; or provided that can't be done, send them to Coventry. *Lisle en Flandres, Aout* 25, 1769.
The Public Advertiser	25 Aug. 1770	11123	This is to Inform the Nobility	This is to Inform the Nobility and Gentry, there is to be disposed of at Ward's Original Turtle Warehouse, No. 70, Mark-Lane, a great Variety of Turtle, superior to any in London, just arrived from the Bahama Islands.
The Public Advertiser	6 March 1772	11671	To the Printer of the Public Advertiser	Sir, The Enemies of Mr. Wilkes, particularly the fat, turtle-fed Knaves of the City, who acquire Fortunes and Gouts by ministerial Jobbs, Contracts, &c. are not, as they pretend, Enemies to his Vices as a Man, so much as to his Honesty and Virtue as a *True Patriot.* The immoral Part of his Character, if the Truth were spoken, is indeed the only Part they are heartily pleased with, as it serves for a Kind of Foil to their own decent, covered Roguery, and at the same Time as an Excuse for railing at his Political Creed; not because it is in Opposition to Government or their own Consciences, but against their Avarice and their Luxury, which have ever been their *ruling Principles*….

Newspaper	Date	Issue	Item Title	Text
The Public Advertiser	26 March 1772	11333	To the Printer of the Public Advertiser	SIR, The Enemies of Mr. Wilkes, particularly the fat, turtle-fed Knaves of the City, who acquire Fortunes and Gouts by ministerial Jobbs, Contracts, &c. are not, as they pretend, Enemies to his Vices as a Man, so much as to his Honesty and Virtue as a *true Patriot*. The immoral Part of his Character, if the Truth were spoken, is indeed the only Part they are heartily pleased with, as it serves for a Kind of Foil to their own decent, covered Roguery, and at the same Time as an Excuse for railing at his Political Creed; not because it is in Opposition to Government or their own Conseiences, but against their Avarice and their Luxury, which have ever been their *ruling Principles*.
The Public Advertiser	24 July 1772	11062	To the Printer of the Public Advertiser	Sir, WHAT! Is the Court of Aldermen composed of such a Set of drunken Mortals? I say, Mr. Woodfall, what is the Meaning of drinking (for so it is termed) to this, that, and r'other Person to take upon them the Office of Sheriff? And why they so very often drink to People whom they are certain will not serve? Is it because those who do not chuse to serve the Office are obliged to pay a Fine of upwards of Four Hundred Pounds to enable those strange, guttling, drunken Set of patriotic Geniuses (who regard the Welfare of their Guts much more than that of the Nation, and whose God is a good fat West India Turtle) to lay in a large Load of Turtle, Clarret and Madeira, to the enormous Quantity, as I have been told, of three Pounds of the former, and four or five Bottles of the latter, to each Man's Share by way of Dinner between the Hours of Three in the Afternoon and Eight in the Evening?
The Public Advertiser	24 July 1772	11062	London	The Right Hon. Lord North has had a Present sent him from the Bahama Islands of a Dozen of young Turtles, and one Turtle weighing 600 Weight, and the others were of very enormous Size.

The Hampshire Chronicle	10 May 1773	38	An Authentic Account of Yesterday's Proceedings in the House of Commons	…Lord Clive then got up, and solicited the indulgence of the House to a few facts which had been partially stated; and as he was pleading for what was dearer to him than life, his reputation, he hoped the committee would patiently hear him. He then went through one of the reports of the secret committee, and quoted those different passages which concerned him. His Lordship was very particular in examining the report; and in answer to these different passages which accused him of appropriating part of the revenues of Bengal, he read extracts of the Nabob's letter to him as President of the select committee, of the committee's letter to the Directors, and finally the directors letter of *approbation* to him. His Lordship afterwards observed, that trained in a school of war and politics, as he had been for 20 years, he was now in the school of philosophy, and if patience was a virtue, he had no doubt of being very virtuous indeed. He enlarged very fully on the misconduct of the Directors; and after arraigning in the severest terms the unpardonable remissness of former administrations, in neglecting the affairs of the India Company, he declared, that the mismanagement *abroad* was founded upon mismanagement at *home*. He then entered very particularly into the malevolence and artifice of his enemies, and to prove the zeal with which *one* of them attacked him, he read part of a conversation between the late Deputy Chairman, and one of the first Clerks in the India-House, in which the late Deputy Chairman (Sir George Colebrook) says those remarkable words, "I want to mark the man" (meaning his Lordship). Lord Clive proceeded to exculpate himself, and declared he went out to India the last time, promising not to add a shilling to his fortune, either directly or indirectly, and which he declared to God he had religiously obeyed. His Lordship ironically complimented the vast extent of abilities of Lord North, in limiting the continuance of the territorial acquisitions in the Company's possession for six years. He said he might call his Lordship the lion of government, and the India Company the jackall, or lion's provider; that he had already seized upon three quarters, and no doubt, but when the lion had been out hunting, and was returning hungry, that the remaining quarter would be seized also; that he stood there as an independent man, ready to give government every honourable assistance; that that [sic] he would do, and farther would not be expected of him, with respect to the East India Company; that he lamented their situation; that they had long been tampered with by quacks, even 'till they were reduced to an absolute consumption, and had thrown themselves upon parliament as the only and true physician that could effect a cure. His Lordship remarked, that for these two years past the Directors, either through ignorance or resign, had kept the affairs of the Company a secret that they had rioted at taverns, dissolved in dissipation and luxury, and had venison, turtle, and other choice viands in and out of season, with Burgundy, Caret, and Old Hock; that they entirely neglected *their* duty, and employed a man to THINK for them (Mr. Wilkes) to whom they allowed 400 l. per annum, and that many of their orders were so absurd and contradictory, that their own servants were almost justified in refusing obedience to them….

Newspaper	Date	Issue	Item Title	Text
The General Evening Post	31 Aug. 1773	6223	London	On Friday last the Marquis of Rockingham entertained a great number of the nobility and gentry at the Deanry in York; where, among other rarities, a turtle was served up that weighed above 3 cwt. was five feet long, and 3 feet 8 inches broad.
Morning Chronicle	3 Sept. 1773	--	Country News	York, Aug. 30. On Friday last the Marquis of Rockingham entertained a great number of the nobility and gentry at the Desnry; where among other rarities, a turtle was served that weighed above 3 Cwt. Was 5 feet long, and 3 inches broad.
The General Evening Post	19-22 Feb. 1774	6294	London House of Commons Monday, February 21	Mr. Edmund B—ke made a very long masterly speech, said he heard the Honourable Gentleman (Mr. P—ps) speak in a *Provincial* capacity; he should like to hear some gentlemen speak in an Official capacity, but by the great encomiums the Honourable Gentleman had paid the First Lord of the Admiralty, he imagined it would not be long before he spoke in an *Official* capacity: he said he was sorry to find that neither the Noble Lord, nor any of the Treasury Bench could give one reason for this enormous expence, no otherwise than "our navy was the bulwark of the nation, and we must support it in defence of ourselves, and to keep our enemies in awe;" that he had a very great regard for the navy, but we ought to consider whether we could bear this enormous expence: that by their own accounts the expence of the navy took up the whole of the land and malt tax; that all other exigencies were obliged to be thrown on the Sinking-fund: he said, he owned his ignorance in the nature of their accounts, but when the Hon. Gentleman (Mr. P—ps) talked of fencing in an estate, it was something in his own way, and he had often known more money laid out on fencing in an estate, than the estate was worth, and he was afraid that would be the case in the present instance. He was very severe upon the Navy and Admiralty Boards not being able to assign any reasons for the increase of their demands; he said, his Hon. Friend (Mr. D—ll) was apt to speak facts, that were very disgusting to the opposite side; and observed, that you might as well recommend fasting to an Alderman at a turtle feast in the City, as economy to a Committee of Supply; he was very humoarous in the latter part of his speech, by comparing Mr. D—ll to a solid English joint of meat; and that he imagined the noble Lord would open his budget of mirth, of which he had an amazing stock, and afford us an agreeable desert after dinner.
London Evening Post	2-4 Feb. 1775	8247	Postscript London	It is said Lord North has offered to feed with *swuabs* [sic] and *turtle*, for one month, one thousand *starving* Englishmen, provided, at the end of the stipulated time, they suffer him to have in return their scalps, which are to be sent, we hear, with other ministerial scarecrows to America. It is thought the bargain will be struck; so thirsty after blood are our savage Ministers, to [sic] dispirited by poverty our emaciated people!

Newspaper	Date	Issue	Item Title	Text
Morning Chronicle	11 Sept. 1776	2281	A Letter from Antigua by the *Mary* and *Ann*	A turtling sloop, just arrived here, says he was brought too by an American privateer brig, who took all his turtles from him except five, and then discharged him, on his complaining that he was very poor, they told him for that reason they had returned him his vessel, otherwise they would have burnt it. The poor fellow (the mailer of it) said he was nevertheless happy to get rid of them, though he lost his cargo. We are told that two privateers have been seen between the island of Montserrat; the Admiral has however sent out two armed vessels in chace of them, and should they come up with them, we have not the least fear but we shall have a good account of these pirates. Don't have any thing to do with the Guinea trade, as slaves now fetch but a very low price, on account of the scarcity of provisions to feed them with.
The Hibernian Journal	1 Mar. 1799	26 (vol. 29)	Yellow Fever	The following extract from a voyage, to the South Sert, lately published by Captain Colnett, of the royal navy, is highly deserving of the attention of all commanders of ships and others who go into hot climates, as is exhibits a successful mode of treating the yellow fever, a disorder, which, alas, has so often baffled the shall of medical practioners (*Page* 80) :— "The whole crew had been more or less affected by the yellow fever, from which horrid disorder I was however so fortunate as to recover them, by adopting the method that I saw practiced by the natives of Spanish America, when I was a prisoner among them. On the first symptoms appearing, the fore part of the head was immediately shaved, and the temples and pool washed with vinegar and water. The whole body was then immersed in warm water, to give a free course to perspiration, some opening medicine was afterwards administered, and every four hours a dose of ten grains of James's Powder. If the patient was thirty, the drink was weak white wine and water, and a slice of bread to satisfy an inclination to eat. An encreasing apperitc was gratified by a small quantity of soup, made from the mucilaginous part of the turtle, with a little vinegar in it. I also gave the sick sweetmeats and other articles from my private stock, whenever they expressed a distant with for any, which I could supply them with.—By this mode of treatment, the whole crew improved in their health, except the carpenter, who, though a very floot robust man, was, at one time in such a state of delirium, and so much reduced, that I gave him over, but he at length recovere." A more judicious treatment of this disorder could not have been devised. The same good sense, indeed, which directed the medical concerns (for there was no surgeon on [ILL] difficulty or danger, which required nautical skill; but of this we are the less surprised, when we find that Captain Colnett had served under that celebrated navigator, Captain Cooke; to whose works this publication will no doubt be considered as a valuable supplement.

American Newspapers

Newspaper	Date	Issue	Item Title	Text
New Hampshire Gazette	26 Oct. 1759	--	Continued from our last, of October 19. A fourth Reason against Mr. S---- P---t	…The more I think of the unreasonableness and unjustice of this part of his conduct, the more I am persuaded that his administration cannot possibly last. I know the constitution of the city of London, and the method of managing business there; and I may be allowed to have some little notion of the influence of turtle and of venison…
New-York Gazette	13 Oct. 1761	145	Notice	Broke out of a Crawl on Thursday night last, occasioned 'tis thought by the 'high tide at Kings-Bridge, a large Turtle, mark'd C W on the back. Whoever brings it to Mr. Bernard, at Kings-Bridge, shall receive Twenty Shillings reward and all reasonable charges. ---it was intended to be dressed to-morrow.
New-York Gazette	17 Dec. 1764	--	To the Printer	To me it seems high Time indeed for us to abate in our Extravagances; for at present, our Folly has scarce any Bounds, as to our Eating and Drinking. Shambles Meat, is not looked upon as fit for a Country Mayor's Entertainment. In a few Years we shall all become Turtle Eaters, and a Number of Vessels may be employed in that Branch of Fishery, I think it much genteeler this, than the Newfoundland Cod-hawling –As to our Drinking, it must be Punch or Wine; Malt Liquor, the Doctors don't think it wholesome; Cyder is almost prohibited. The Duties upon Rum from our own Plantations so high, that it will not pay freight and prime Cost, by which French Brandy is encouraged to be smuggled in, and it's the Town's Taste, as well as the Country's.
New-York Gazette	21 May 1767	--	Extract of Letter from Durham, March 26.	A few days ago a feast was given at a tavern at the West end of town, where an ox's head (the first ever known) dressed turtle fashion, by an eminent man cook, for the entertainment of several gentlemen; and it is thought it will become a dish in vogue among the economists.
New-York Journal	12 Feb. 1767	--	To the Printer of the St. James's Chronicle	If you ask farther, why I am so certain that such a Design is formed, I answer, Because it is a very reasonable one, and most agreeable to the Principles and Declarations of this present Administration. Can these Gentlemen see, without Indignation, pampered Courtiers feeding on Turtle, without any Merit of their own, or of their Ancestors, whilst such as are wearing themselves out with Labour, are pinched with Cold and Hunger, and see their Wives and Children perishing?
New-York Gazette	6 Aug. 1767	--	At a Time When Articles of	And as to your public spirit, why ye know gemmen [sic] of the westry, I need not tell you, that is nothing more than a licence for publicans to sell spirituous liquors; --and as to your

Newspaper	Date	Issue	Item Title	Text
			Intelligence Are Scarce	esteem; wh—y some people esteem brandy punch; and if I was the people of Jamaica, if the people of England would not drink rum punch, why they should have no turtle, and then they should all be starved.
Boston Chronicle	28 July 1768	--	London	Saturday Mr. Wilkes entertained his friends with a turtle dinner, in honor of his Majesty's birthday. The same night, by order of John Wilkes, Esq; the King's Bench Prison was illuminated, and several fireworks plaid off
The Maryland Gazette	28 July 1768	1194	London	Yesterday a Turtle of 145 Pounds Weight, was sent by Lewis Mendes, Esq; to John Wilkes, Esq; in the King's Bench, being the first Turtle that has been brought this Year to England.
New-York Gazette	30 Oct. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.
The Essex Gazette	31 Oct. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America
New-York Journal	2 Nov. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.
The Boston-Gazette	6 Nov. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.
The Boston Post-Boy	6 Nov. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.
The New-Hampshire Gazette	9 Nov. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.
Boston Weekly News-Letter	30 Nov. 1769	--	London	By Capt. Hood a Letter was received from Mr. Wilkes, acknowledging the Receipt of two Turtles sent from this Town [Boston] by a Number of Gentlemen, in July last; --one of which weigh'd 45 and the other 47 lb. which added together makes 92 lb. –it is remarkable that the vessel in which they were sent had 45 Days passage.
Connecticut Courant	20 Nov. 1769	--	On Friday	On Friday, a turtle, of a very considerable weight, drawn by six horses, and a puncheon of rum, were sent as a present to the Duke of Grafton, from Sir Francis Bernard, in America.
The New York-Gazette	1 Jan. 1770	--	Saturday Morning	Saturday morning a fine West-India turtle of 300 cwt. Was sent by a Merchant in the city as a present to Mr. Alderman Wilkes.
The Boston Evening Post	9 July 1770	--	A friend of Mr. Wilkes	A friend of Mr. Wilkes's was observing to him that he was grown fat of late –"Can you wonder at that, (said the Patriot) when you consider I am an Alderman, and as fond of turtle as the fondest of them."

Newspaper	Date	Issue	Item Title	Text
New York Journal	23-27 Aug. 1770	--	Edward Bardin	Edward Bardin, From New York, Having opened Tavern at the King's Arms on Boston Neck…He further requests the Favour in preparing public or private Entertainment on any Occasion…--Likewise Turtles, Barbicues, or any other Joint, is taken in and dressed after the Italian, Spanish, French or English Manner…
New York Journal	3 Sept. 1770	--	Edward Bardin	Edward Bardin, From New York, Having opened Tavern at the King's Arms on Boston Neck…He further requests the Favour in preparing public or private Entertainment on any Occasion…--Likewise Turtles, Barbicues, or any other Joint, is taken in and dressed after the Italian, Spanish, French or English Manner…
Pennsylvania Chronicle	16-23 Sept. 1771	--	Mr. Alderman Townsend	Mr. Alderman Townsend sat yesterday as Justice for Mr. Alderman Wilkes, at Guild-hall. A good sign. And it is said that all the differences between the contending Patriots are amicably settled. Tuesday morning a fine turtle, weighing upwards of 200 lb. was sent to Mr. Wilkes as a present from the Captain of a West Indiaman lately arrived.
The Massachusetts Spy	20 May 1773	--	To the Printer	Friends, countrymen and fellow citizens, the time is drawing nigh for the election of counsellors in this province…That duplicity in a councellor…who one day is a warm assertor of rights and privileges of his country (if he dines with a son of liberty on a well dressed turtle!), and the next a reviler of the assertors of that liberty, when at the table of him who knows how to keep him at a proper distance! (sarverbum)
The Maryland Gazette	15 July 1773	1453	Extract of a letter from Portsmouth, May 14	Amongst the characters at the masquerade on Wednesday, a double mask (half beau, half farmer) had much merit; an old maid, in a large hoop and yellow facque, was inimitable; a turtle-gorged, hor#ed alderman, not bad; a sailor, who did not lose his share of praise; a Merlin, by no means despicable; a Mungo, who would not have disgraced a Weston; a Schoolmaster, in character; and a garietteer poet, natural and praise-worthy.
Connecticut Gazette	2 Oct. 1775	--	Watertown	October 2. Last Week, a Brig from New-Providence with Turtle and Fruit, was taken by our People, and carried into Cape-Ann.
Pennsylvania Evening Post	8 June 1776	--	Letter from New York	Two privateers belonging to this port have taken three very valuable ships bound from Jamaica to London, laden with rum, sugar, molasses, &c. having also a large quantity of dollars and plate on board. We hear that on board the above ships, there were everal fine sea turtle, intended as a present to Lord North; one of which, with his Lordship's name nicely cut in the shell, was yesterday presented by the Captain to the worthy President of the American Congress.
New England Chronicle	15 Aug. 1776	--	When, Alas!	When, Alas! She [the *Reward*] fell into the Hands of the United States of America. There were on board the above Ship, a Number of Turtle directed to Lord North, with his Name cut into the Shell, the best of which, Capt. Wingate Newman, Master of the armed Vessel, is determined to send to the Hon. John Hancock.

Newspaper	Date	Issue	Item Title	Text
Freeman's Journal	24 Aug. 1776	--	Last Tuesday	Last Tuesday, the Nelly Frigate, of Lord Capt. Lyonel Bradstreet, commander, last from the Bay of Honduras, with 126,000 feet Mahogany, 40 tons Logwood, and a number of fine Turtle, was sent into this Port, by the Hancock and Franklin Cruizers—She was taken in Latt. 38 00 N. Long. 65 06 W. out 10 Weeks.
The Connecticut Currant	2 Sept. 1776	--	Boston	August 29. Last Saturday afternoon was chased into Marblehead by the Milford frigate, the price ship Isaac, from Tortola bound to London, 350 tons burthen, commanded by Capt. Ashburn, laden'd with 500 hogsheads sugar, 43 puncheons rum, 150 bags cotton, considerable of old copper, and a quantity of turtle…She was taken by the privateer sloop Warren, commanded by Capt. Phillips;
The Providence Gazette and Country Journal	17 Jan. 1778	--	Newburn	(N. Carolina) Oct. 24. Since our last Capt. Ward, of the independent company, stationed on Core Banks, has taken a prize schooner, called the Liverpool, commanded by Capt. Mayes from Providence to New-York, loaded with fruit and turtle for Lorde Howe. This vessel put into Cape Lookout Bay, under the sanction of a pretend friend; but Capt. Ward's vigilance soon discovered her to be an enemy, and in the night boarded her with some of his company, and took her.

APPENDIX E: TURTLE SATIRE

Figure 7-16. The English Glutton, by Matthew Darly 1776, London. British Museum 1948,0214.562. Courtesy of the British Museum. Reprinted from Darly 1776.

Figure 7-17. Lord Mayor's Day, or, Filling the Glutton's Balloon, by William Dent 1784. British Museum 1868,0808.5383. Courtesy of the British Museum. Reprinted from Dent 1784.

Figure 7-18. A Sudden Call, or One of the Corporation, Summoned from His Favorite Amusement, by S.W. Fores 1799. British Museum 1935,0522.8.17. Courtesy of the British Museum. Reprinted from Fores 1799.

Figure 7-19. Effects of Peace, by Isaac Cruikshank 1797. British Museum 1935,0522.8.38. Courtesy of the British Museum. Reprinted from Cruikshank 1797.

Figure 7-20. Substitutes for Bread; -or- Right Honorable, Saving the Loaves, & Dividing the Fishes, by James Gillray 1795. British Museum 1868,0808.6492. Courtesy of the British Museum. Reprinted from Gillray 1795.