An Historical Study of the Potential for Underwater Cultural Heritage in Pointe-à-Pitre Bay, Guadeloupe, FWI

Jean-Sébastien Guibert

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The Advisory Council on Underwater Archaeology (ACUA), the Society for Historical Archaeology (SHA), and The PAST Foundation are pleased to present the 2012 *ACUA Underwater Archaeology Proceedings* from the 45th Annual on Conference on Historical and Underwater Archaeology held in Baltimore, Maryland, USA.

The Underwater Archaeology Proceedings present current research conducted by academics, avocationalists, students, and resource managers. All of the papers published in this volume were originally presented as talks in organized conference sessions and are the edited print versions of the research presented. They cover a broad range of topics related to underwater and nautical archaeology, from discussions of specific ship types and the results of scientific studies to broad-based data management tools.

Making information widely accessible is one of the key missions of the ACUA. The Underwater Archaeology Proceedings provide a timely outlet for professional research and an opportunity for students and avocationals to share their work with a wide audience.
ACUA
Underwater Archaeology
Proceedings
2012

edited by
Brian Jordan and Troy J. Nowak

An Advisory Council on Underwater Archaeology Publication
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The Advisory Council on Underwater Archaeology and the PAST Foundation are pleased to present this volume of selected papers from the 45th Annual Conference on Historical and Underwater Archaeology held between 4 and 8 January 2012 in Baltimore, Maryland, USA. These papers were submitted by a diverse group of authors including academics, avocationals, students, and resource managers. They represent a broad range of topics related to underwater and nautical archaeology.

Fifteen papers representing seven conference sessions are presented in this volume: six present preliminary findings from the Lighthouse Archaeological Maritime Program’s work on an 18th century shipwreck off the coast of St. Augustine, Florida; others discuss the development of specific ship-types, dendrochronology, site formation processes, data management and dissemination tools, and integrating terrestrial and marine remote sensing data.

The editors are grateful to the PAST Foundation for facilitating publication of these proceedings, and for hosting the Basecamp web-based project management tool used by authors and editors to share and track files. We would like to thank Annalies Corbin and Toni Carrell for their advice and assistance regarding submissions and Knic and Walker Pfost for their hardwork managing Basecamp and formatting the manuscript for publication.

Finally, we would like to thank the contributors for taking the time to share their research at the conference and editing their presentations for publication in these proceedings.

Brian Jordan  
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Maryland Historical Trust
An Historical Study of the Potential for Underwater Cultural Heritage in Pointe-à-Pitre Bay, Guadeloupe, FWI

Jean-Sébastien Guibert

This paper presents historical research conducted through a partnership between the University of French West Indies and the Guadeloupe Port Authority in 2010. In the preparation for an underwater archaeological survey, the Guadeloupe Port Authority, advised by the Department for Underwater Archaeological Research (DRASSM), initiated historical research to assist in understanding the potential for underwater cultural heritage in Pointe-à-Pitre Bay. Historical sources concerning shipwrecks, maritime events, and construction and dredging activity in the port since the beginning of 19th century have been studied to delineate high potential research and survey areas. This paper presents the context, methods and results of this project.

Introduction

Captain Valteau in a report on Pointe-à-Pitre’s harbor, ca. 1800 said:

*Merchants ships can’t anymore sail to the quays in order to load their cargo. Two basins that nature had formed, and which were used to protect ships during hurricane season, are littered by hulls that were abandoned. For ten years this port has been so neglected that more than one hundred ships are lost in its area. (Archives Nationales d’Outre-Mer (Aix-en-Provence) [ANOM], C7A 66 f 255-258)*

This quote reflects the potential of underwater research in Pointe-à-Pitre Bay, Guadeloupe, French West Indies; both a challenge and an opportunity for the Guadeloupe Port Authority in the French Caribbean. This paper presents some preliminary research resulting from a partnership between the Guadeloupe Port Authority and the University of French West Indies in 2010 to assess the bay’s archaeological potential through historical research. This study only addresses shipwrecks from archival records to evaluate the potential for underwater cultural heritage in Pointe-à-Pitre.

Pointe-à-Pitre’s history is indelibly linked with the history of its port and maritime activity. Pointe-à-Pitre is one of several colonial towns that arose first as a port before becoming a town. Anne Pérotin-Dumon (2000) studied the history of this port town and its relevance to Basse-Terre, Guadeloupe’s capital city, and described the reasons for its initial success in the middle of the 18th century. The topography of this safe mooring location in the center of the colony is one reason that the town developed and later became the economical heart of the colony in the 19th century. Despite a high underwater archaeological potential due to its history, a comprehensive database of shipwrecks is not available because the synthesis of maritime history in the French West Indies is incomplete. For example, Moreau’s (1988: 120-137) summation of West Indies maritime history does not include information from the 19th century.

Before presenting the context, methods, and results of this project, it is necessary to define and discuss the central issues and research objectives. Underwater archaeological potential refers to the degree of likelihood that the vestiges of maritime activity, maritime events, or accidents could have survived and be found in a particular area. Maritime structures, such as quays or wharves that currently exist or have existed in the area, are not considered in this project.

The maritime history of this area can be divided into two main periods: the Native Amerindian period before European contact until the 16th century; and, the subsequent colonial period following European contact through the end of the 19th century. The archaeological potential for Native Amerindian period sites exists, as illustrated by archaeological reports of surveys undertaken in the area. The potential for Colonial period underwater archaeological resources, focusing on colonial maritime activity, is analyzed through historical research though no underwater survey has been undertaken in the area.

Maritime events are defined as accidents, wars, and weather events that may have resulted in maritime losses. During more than three hundred years of colonial history, there were numerous maritime events that have to be evaluated for potential archaeological remains. Evaluations of archaeological potential should focus not only on the maritime events themselves, but also on the aftermath of these events, such as salvage operations and dredging projects occurring during that same period.
Using historical research applied to underwater archaeology, the objectives of this project are to: (1) Define the different maritime activity phases of Pointe-à-Pitre Bay; (2) Record maritime events and evaluate their implications for underwater archaeology; (3) Identify zones with high archaeological potential; and, (4) Evaluate construction and dredging impacts in the area.

Today, Pointe-à-Pitre is the economic center of Guadeloupe due to the development of its extensive maritime activity. Pointe-à-Pitre is located adjacent to a large bay, formed by both parts of the island: east of Basse-Terre and west of Grande-Terre. The entire bay is protected by coral reefs and the surrounding islands. Since the 18th century, the bay was considered the island’s best harbor and mooring area, as well as one of the safest in the Lesser Antilles (Figure 1).

Considering the history of the bay, the Guadeloupe Port Authority (GPA) decided to give the Department for Underwater Archaeological Research (DRASSM) the opportunity to organize an underwater archaeological project as part of the expansion of the port. The GPA project plans to increase the surface of the port platform by creating a polder of 0.25 km$^2$ (25 hectares) for new quays (Figure 2). The objective is to increase...
the port capacity by 200% by 2020. In addition, the access area and the emergency sidetrack will be dredged deeper—down to 15 meters—and enlarged. This project is intended to accommodate the expected increase in maritime activity in the Caribbean due to the enlargement of Panama’s canal and the global trend toward port accessibility by bigger container ships (Figure 2).

French cultural heritage law requires investigation of archaeological cultural resources, particularly during construction projects, which is addressed by DRASSM. In this case, three steps will be completed: (1) historical research, (2) underwater survey, and (3) underwater excavation in the case of a positive identification of underwater cultural heritage.

For the first step, which is the focus of this paper, DRASSM advised the GPA that historical research was necessary to establish the archaeological potential of the Pointe-à-Pitre Bay. This research aims to contextualize maritime events that occurred in the area. The History Department of the University of the French West Indies participated in the investigations of the bay’s maritime history.

**Historical Methods in the Service of Underwater Archaeology**

Initial historical research preceding the archaeological project consisted of archival research conducted in Guadeloupe State Archives (Archives Départementales de Guadeloupe (Gourbeyre) [ADG]), Paris National Archives [AN], Aix Over Seas National Archives (Archives Nationales d’Outre-Mer (Aix-en-Provence) (ANOM)), and London Public Records Office (Public Record Office (Kew) [PRO]), in an attempt to understand the archaeological potential of the Pointe-à-Pitre Bay as well as establish high potential research and survey areas for underwater investigation. Those aims have been partially realized through a critical analysis of historical sources and the development of a database of maritime events that occurred in the Pointe-à-Pitre area.

The database records losses from maritime events, such as those that would have occurred during a strong gale, maritime war, or accident. The second step is to evaluate the potential of the event to have generated underwater archaeological remains that have survived to the present. For that purpose, the research focused on four criteria: (1) localization of shipwrecks or ships losses, (2) event that caused the wrecking of each mentioned ship, (3) sea bed characteristics, and (4) salvage activity after the loss. Information from archival sources was standardized for comparison and quantification.

From those observations, a rating system has been proposed that includes those four criteria to focus on shipwrecks with high archaeological potential and high potential research and survey areas. The three last criteria have been rated as shown in Table 1. The sum of the numbers in the indice columns yields the Archaeological Potential Rating (APR). This number ranges from -3 to +3.

For example, Théodor, a 350-ton ship from Nantes, was lost (+0) in the bay during the September 1776 hurricane but was raised with its masts broken (-2) and no indication relevant to the nature of the sea bed (+0) (ANOM F3 20 182; C7B 3 24). This ship would be given an APR of -2, meaning that there is likely no chance to find any vestiges of the wreck. The schooner France was cast on coral reef (+1) in the narrow on June 1824, bound from Pointe-à-Pitre, Guadeloupe to Savannah, Georgia, USA. It wrecked due to weather conditions and the lack of maintenance of the narrows’ navigation buoys. The ship was intended to be condemned and sold (+0) after an attempt to save it, but the ship remains were finally abandoned (+1) by the end of the month (ANOM SG/GEN 340/2135). France would be given

<table>
<thead>
<tr>
<th>Obs 1: Events</th>
<th>Indice 1</th>
<th>Obs 2: Sea Bed Nature</th>
<th>Indice 2</th>
<th>Obs 3: Interventions</th>
<th>Indice 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = cast ashore</td>
<td>-1</td>
<td>C = coral reef</td>
<td>1</td>
<td>C = condemned</td>
<td>0</td>
</tr>
<tr>
<td>Ab = abandoned</td>
<td>1</td>
<td>M = mangrove</td>
<td>0</td>
<td>S = saved</td>
<td>-1</td>
</tr>
<tr>
<td>B = beached</td>
<td>0</td>
<td>Q = quay</td>
<td>-1</td>
<td>R = raised</td>
<td>-2</td>
</tr>
<tr>
<td>C = capsized</td>
<td>1</td>
<td>R = rock</td>
<td>0</td>
<td>T = totally lost</td>
<td>1</td>
</tr>
<tr>
<td>D = destroyed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>burst broken</td>
<td>1</td>
<td>S = offshore</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S = sunk</td>
<td>2</td>
<td>Md = mud</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L = lost</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 1. Building the Archaeological Potential Rating (APR)**
an APR of +2 meaning there is likely a chance to find vestiges of the wreck.

All maritime events that may have caused losses in the area have been analyzed using this method. The APR method does not consider construction and dredging projects that took place in the area of Pointe-à-Pitre Bay between the 19th and 20th centuries.

Archaeological Potential through Historical Research: the Results

At this juncture, the evidence supports the hypothesis that the Point-à-Pitre Bay area has a high underwater archaeological potential that needs to be evaluated with respect to 20th-century port development.

Historical Background

The history of the area is marked by the presence of Amerindian settlements. Pointe-à-Pitre Bay may have been used by Amerindians traveling through the West Indies from south to north via the Rivière Salée. Archaeological evidence of settlements have been found on different islands in the area and in the south and north part of the Bay. For example, the site of îlet à Cochons is a known Amerindian settlement dating from A.D. 800 to 1500 (Kissoun and Stouvenot 2003:7).

The Colonial Period is characterized by the presence of Spanish ships and privateers who frequented this part of the West Indies. During the 16th century, islands such as Guadeloupe were used as victualing stops along the gold route. Water and food were usually found on Dominica, Martinique, or on the west side of Guadeloupe (Moreau 1985). The area of Pointe-à-Pitre was visited less frequently during this period for lack of available fresh water.

After the French invasion of the island in 1635, the maritime activity may be further divided into two periods. During the first period from the mid-17th to mid-18th century, Pointe-à-Pitre Bay was primarily used as a refuge during hurricane season under the advice of mariners since 1682. Its maritime activity developed later in the 18th century with the establishment of the Grande-Terre settlement. Maritime activity increased in the mid-18th century as a result of English occupation during the Seven Years War (1759-1763) and the official founding of the new town of Pointe-à-Pitre in 1764 (Kissoun 2007). During this period the area was also frequented by merchants. From 1764 to the end of the 19th century, Pointe-à-Pitre’s harbor activity grew until it became one of the most frequented harbors in Lesser Antilles, but it never became the administration headquarters which stayed in Basse-Terre. The maritime activity in Pointe-à-Pitre also surged during the Quasi-War between France and the United States (1798-1800) when the town served as a launching point for filibustering and again during the English blockade from 1808 to 1810 (Pérotin-Dumon 2000).

Numerous maritime events

Maritime events that occurred in the area were studied to evaluate their implications for underwater archaeology. Weather events, war or maritime accidents have been recorded in five case studies that are shown in Table 2.

Ships with a Positive APR

Analyzing the documentary records identified shipwrecks that may have generated underwater archaeological remains that have survived to the present. Using the criteria established here, it is inferred that out of 121 shipwrecks identified through historical research, 19 shipwrecks have positive archaeological potential for investigation (Table 3). For comparison, nearly 500 shipwrecks of various types are recorded in a database currently being compiled as part of the author’s Ph.D.

<table>
<thead>
<tr>
<th>TYPES</th>
<th>EVENTS</th>
<th>SHIPS LOST / POTENTIALLY WRECKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather Events</td>
<td>Hurricane (26/7/1715)</td>
<td>6 / 1</td>
</tr>
<tr>
<td></td>
<td>Hurricane (6/9/1776)</td>
<td>25 / 6</td>
</tr>
<tr>
<td></td>
<td>Hurricane (1825)</td>
<td>9 / -</td>
</tr>
<tr>
<td></td>
<td>Strong winds (29/8/1738)</td>
<td>12 / 2</td>
</tr>
<tr>
<td></td>
<td>Strong winds (9/8/1742)</td>
<td>6 / 2</td>
</tr>
<tr>
<td>Wars</td>
<td>Seven Years War (1759)</td>
<td>3 / -</td>
</tr>
<tr>
<td></td>
<td>French Revolution (1794)</td>
<td>12 / 2</td>
</tr>
<tr>
<td>Accidents</td>
<td>Marquis de Narbonne (1776)</td>
<td>1 / -</td>
</tr>
<tr>
<td></td>
<td>Didon (16/7/1792)</td>
<td>1 / 1</td>
</tr>
<tr>
<td></td>
<td>France (11/6/1824)</td>
<td>1 / 1</td>
</tr>
<tr>
<td></td>
<td>Émile Péreire (1858)</td>
<td>1 / -</td>
</tr>
</tbody>
</table>

Table 2. Maritime events in Pointe-À-Pitre bay and their consequences (Guibert 2010)
dissertation research on the maritime activity and maritime risks in Guadeloupe from the end of the 17th century to the mid-19th century (Guibert [2013]). Based on analysis of data collected to date, the APR of ships wrecked in the vicinity of Pointe-à-Pitre seems to be lower than in other parts of Guadeloupe.

The method presented in this paper allows researchers to map past maritime events that occurred in the area (Figure 3). Several interesting patterns emerge from the analysis of the data. The entrance of Point-à-Pitre’s harbor has a positive archaeological potential. Access to the harbor was difficult throughout its history especially during bad weather conditions. This area may contain 19 shipwrecks, 4 of them with a positive APR. Among the four, the French frigate *Didon*, which wrecked in 1793 (Service Historique de la Défense (Vincennes) [SHD] BB4 12), is a potential target for investigation by underwater archaeologists along with other ships, such as the merchant vessel *France* that wrecked in

---

*Figure 3. Map of Archaeological potential zones of Pointe-à-Pitre’s Bay. (Drawing by author, 2010).*

*Figure 4 (below). Map of Pointe-à-Pitre during conflict between French revolutionaries and English in 1793, PRO CO 13/318, (With permission).*

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Advisory Council on Underwater Archaeology
1824 while carrying a cargo of raw construction materials (ANOM SG/GEN 340/2135). The bay itself may contain 64 shipwrecks, with 11 of those losses assigned a positive APR.

When examining the data with respect to types of shipwrecks, only a fraction of ships lost in the area were attributed to war. This is due to the focus of maritime conflict in other locations throughout the French colonies. The most significant conflict occurred in 1794 between French and English forces with the bay serving as the front line between French revolutionary troops and English loyalists.

The primary cause of ship losses in the area was due to weather events (hurricanes and storms) affecting anchored ships in the harbor. The data shows that the harbor was ineffective when a hurricane path crossed directly through the town. For example, the hurricanes of 1776 and 1825 caused a great number of maritime losses. Due to the topographical characteristics of the harbor, a great number of ships were usually saved and repaired after such events. Ships cast ashore or even cast on land are mentioned regularly in historical sources.

The results are confirmed by archival maps or drawings. For example, an English map shows ships at anchor under attack in 1793 (Figure 4). Another map dating from the 1830’s indicates a shipwreck near the Riviere Salée. Drawings, such as an example that depicts a two-masted ship wrecked in the vicinity of the narrow, confirms the difficulty of entering the bay.

### Construction and Dredging Impacts

This study also indicates that from the end of the 19th century to the end of 20th century, nearly all areas in Pointe-à-Pitre Bay were dredged. The first experimental dredging project was undertaken in the first half of the 19th century but large scale dredging occurred beginning in the 20th century, and in the 1970s-1980s with the development of Pointe-à-Pitre as a modern harbor. During that last period, much of the area used for container ship access was dredged to a depth of 12 meters, without regard for the protection of underwater cultural heritage. Several oral sources mentioned at least one wreck site that was destroyed at that time. As a result, the current study will need to take these potential impacts into consideration.

---

### Table 3. Losses in Pointe-à-Pitre’s Bay with Archaeological Potential

<table>
<thead>
<tr>
<th>APR = 1</th>
<th>Event</th>
<th>Date</th>
<th>Obs 1</th>
<th>Obs 2</th>
<th>Obs 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soleil</td>
<td>hurricane</td>
<td>26/7/1715</td>
<td>D (1)</td>
<td>R (0)</td>
<td>(0)</td>
</tr>
<tr>
<td>Boat of Monsard</td>
<td>strong wind</td>
<td>29/8/1738</td>
<td>D (1)</td>
<td>- (0)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Ship of Sr Dulac</td>
<td>strong wind</td>
<td>29/8/1738</td>
<td>A (0)</td>
<td>- (0)</td>
<td>T (1)</td>
</tr>
<tr>
<td>Reine Esther</td>
<td>strong wind</td>
<td>9/9/1742</td>
<td>A (0)</td>
<td>C (1)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Jeune Rosalie</td>
<td>hurricane</td>
<td>6/9/1776</td>
<td>L/Ab (1)</td>
<td>- (0)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Actif</td>
<td>hurricane</td>
<td>6/9/1776</td>
<td>L (0)</td>
<td>- (0)</td>
<td>T (1)</td>
</tr>
<tr>
<td>Marie</td>
<td>hurricane</td>
<td>6/9/1776</td>
<td>L (0)</td>
<td>- (0)</td>
<td>T (1)</td>
</tr>
<tr>
<td>Sage</td>
<td>hurricane</td>
<td>6/9/1776</td>
<td>D/A (1)</td>
<td>R (0)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Sansom</td>
<td>hurricane</td>
<td>6/9/1776</td>
<td>D (1)</td>
<td>- (0)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Didon</td>
<td>navigation error</td>
<td>16/7/1792</td>
<td>A/Ab (1)</td>
<td>C (1)</td>
<td>S (-1)</td>
</tr>
<tr>
<td>Flèche</td>
<td>indeterminate</td>
<td>13/3/1864</td>
<td>C (1)</td>
<td>- (0)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Brilliant</td>
<td>coastal shipping</td>
<td>20/7/1887</td>
<td>A (0)</td>
<td>C (1)</td>
<td>- (0)</td>
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**APR = 2**

<table>
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<th>Obs 2</th>
<th>Obs 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persévérante</td>
<td>hurricane</td>
<td>6/9/1776</td>
<td>D/A (1)</td>
<td>C (1)</td>
</tr>
<tr>
<td>indeterminate 16</td>
<td>maritime war</td>
<td>7/1794</td>
<td>D/S (2)</td>
<td>- (0)</td>
</tr>
<tr>
<td>indeterminate 17</td>
<td>maritime war</td>
<td>7/1794</td>
<td>S (2)</td>
<td>- (0)</td>
</tr>
<tr>
<td>France</td>
<td>infrastructure</td>
<td>11/6/1824</td>
<td>A/Ab (1)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Louise</td>
<td>abandoned indeterminate</td>
<td>(2)</td>
<td>- (0)</td>
<td>- (0)</td>
</tr>
<tr>
<td>Union</td>
<td>indeterminate</td>
<td>15/2/1864</td>
<td>S (2)</td>
<td>- (0)</td>
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</tbody>
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**APR = 3**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Obs 1</th>
<th>Obs 2</th>
<th>Obs 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender ship</td>
<td>strong wind</td>
<td>9/9/1742</td>
<td>S (2)</td>
<td>S (1)</td>
</tr>
</tbody>
</table>

*All shipwrecks occurred in waters around Pointe-à-Pitre, except Soleil, which occurred off Fort-Louis. Lost in the bay. Lost in the narrow/entrance. Lost around Pointe-à-Pitre. Lost near Isle Cochon. Lost near Darboussier.*

*Table 3. Losses in Pointe-à-Pitre’s Bay with Archaeological Potential
dating (APR) equaling +1 or more (Gubert 2010)*
Conclusion

This study confirms the high degree of underwater archaeological potential based on the history of Pointe-à-Pitre Bay. The numerous maritime events that occurred in the area, resulting in the loss of many ships, reinforce this point of view. Other factors need to be examined in determining the archaeological potential, such as the topographic characteristics of the bay, which allowed many ships lost to weather events to be saved and refloated.

Amerindian archaeological potential has been partially evaluated but not investigated further for this project. The colonial period appears to have a high underwater archaeological potential, with 19 potential shipwrecks in the area, the majority dating to the 18th century. The analysis of archaeological potential must take into account the possibility of damage or destruction by construction and dredging projects during the 20th century, which might have removed the vestiges of archaeological sites.

Finally, the accuracy of the archaeological potential rating method used in this study will be tested by underwater archaeological surveys to evaluate its effectiveness. Through in-field site investigation to ground-truth potential archaeological sites, the methodology of this historical research-based model may be improved for application elsewhere.

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