

A database of lapidary artifacts in the Caribbean for the Ceramic Age

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Abstract

Lapidary artifacts show an impressive abundance and diversity during the Ceramic period in the Caribbean islands, especially at the beginning of this period. Most of the raw materials used in this production do not exist naturally on the islands of the Lesser Antilles, nevertheless, many archaeological sites have yielded such artifacts on these islands. In the framework of a four-years-long project, we created a database by combining first hand observations and analysis, as well as a thorough literature survey. The result is a database including more than 100 sites and 5000 beads, pendants, blanks and raw material fragments.

Keywords: Caribbean; Lapidary artifacts; Ceramic Age, Beads, Pendants, Raw materials

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1 Overview

1.1 Context

1.1.1 The PAAF Project

This database has been created in the framework of the PAAF Project (**P**arures **A**mérindiennes en matériaux lithiques dans les **A**ntilles **F**rançaises), which were funded from 2016 until 2019 by the French Ministry of Culture and the Guadeloupe Regional Council. This project consisted in three workpackages, including *chaînes opératoires* studies, gemmology, and the creation of a regional database and GIS. More information on the other results obtained during this project can be found in (Queffelec et al. 2018), (Queffelec et al. 2020) and (Queffelec et al., n.d.).

1.1.2 Archaeological context

Early ceramic sites in the Antilles, comprising ancient cedrosan Saladoid and huecan Saladoid sites, are well known to deliver remarkable collections of lapidary artwork (e.g. Boomert 1987; Cody 1993; Crock and Bartone 1998; Murphy et al. 2000; Narganes Storde 1995). These first formative occupations of the Antillean archipelago are dated back to the second half of the first millennium BC until the end of the fourth century A.D. Linked to a pioneering agro-ceramic dynamic, these groups are characterized by a pre-determined economic system based on horticulture, fishing, hunting, foraging, and associated to the introduction of animal and vegetal species from the continent (Bérard 2013). They are also distinguished by a ceramic and lapidary production *testimonating* of an exceptional social, technological and symbolic investment, and by the settling of important long distance networks. After this specific period of time when the lapidary craftsmanship seems to be at the center of the symbolic production of the inhabitants of the Antilles, the middle, recent and late Ceramic periods decrease their investment in this type of personal ornaments (e.g. Queffelec et al. 2020; Bérard 2013; Hofman et al. 2007; Knippenberg 2007; Rodriguez 1993).

Quite surprisingly, *few* work has been specifically dedicated to the study of the lapidary personal ornaments in the Antilles, despite the potential information one could extract from it. The most comprehensive study of these artifacts is clearly the one made by Cody (1990, 1993) based on a survey she sent by post to every archaeologist working in the Caribbean area to build a database. This major work enabled her to compare the results she obtained for the site of Pearls, on Grenada (Cody 1991), to the rest of the Antilles by

building a first framework of inter-islands relationship. Since the work done at the beginning of the 1990's, no comprehensive analysis of this part of the material production of the Amerindians has been conducted on a regional scale. Putting together the *ancient* data with the recent one will hopefully allow the research community to better understand the changes in the society of the first phases of the Ceramic age.

1.2 Spatial coverage

The geographic distribution of the dataset encompass the complete archaeological record of the Caribbean islands. However, some islands did not yield any lapidary artifact, or at least none that we could find in the literature. Therefore, the northernmost site in our dataset is Minnis-Ward, the southernmost is Erin Bay, the easternmost is Lovers Retreat (TOB-69) and the westernmost is E2 Fort Charles (Fig. 1, Table 1).

Table 1: spatial coverage of the dataset

| Island | Index_Site | Site | Longitude | Latitude | ref_biblio_1 |
|----------|------------|-------------------------|-----------|----------|-----------------|
| Trinidad | TR-03 | Erin Bay | -61.72190 | 10.08838 | Fewkes_1914 |
| Bahamas | BH-01 | Minnis-Ward | -74.51969 | 24.09849 | Blick-etal_2010 |
| Jamaica | JA-04 | E2 Fort Charles | -77.80000 | 17.91667 | Roobol&Lee_1976 |
| Tobago | TO-01 | Lovers Retreat (TOB-69) | -60.77424 | 11.22533 | Harris_1980 |

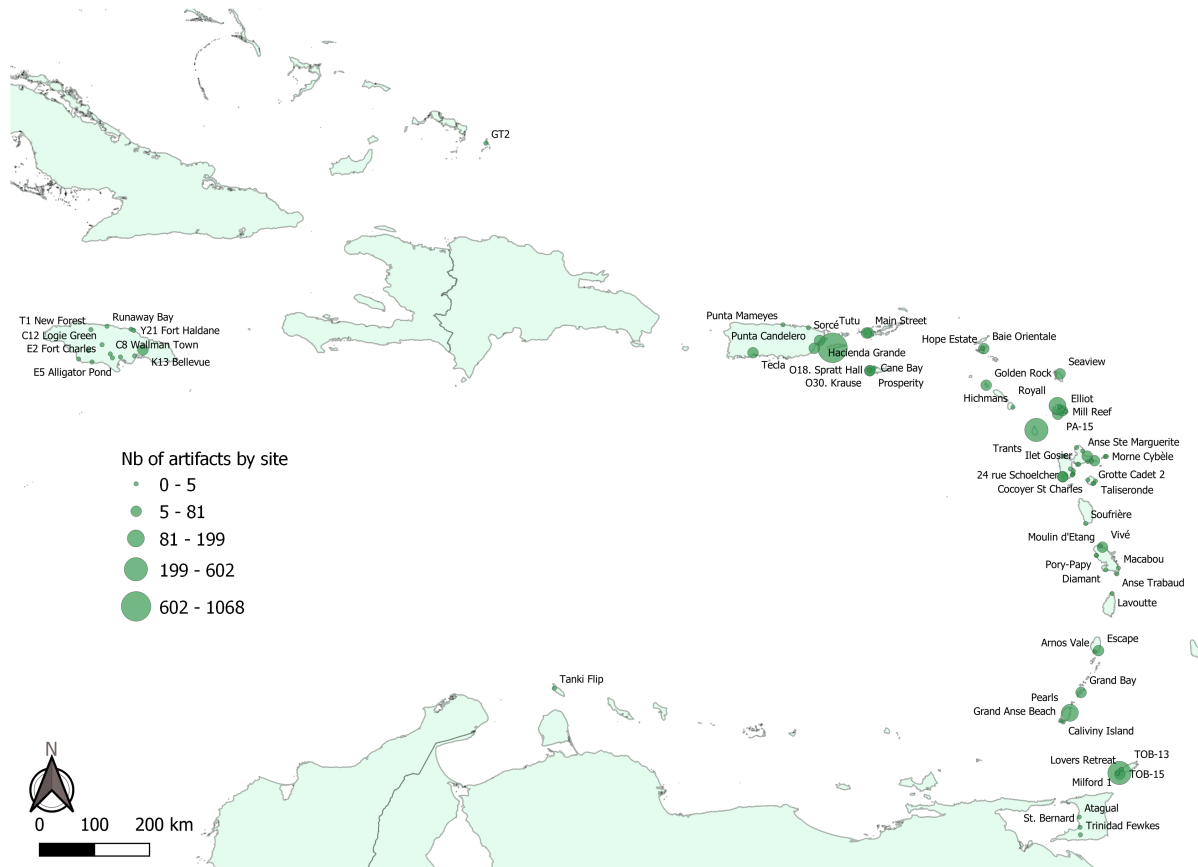


Figure 1: Map of the distribution of the sites registered in the database. The size of the circle is related to the number of lapidary artifacts.

1.3 Temporal coverage

The database compiled in this study aims at consolidating and disseminating data about lapidary artifacts in the Caribbean islands recovered from archaeological excavations or surveys for the period before the arrival of the Europeans in the archipelago. Thus, while the end limit is well known around the end of the 15th century (depending on the islands), the start limit may be different for each island based on the current knowledge of the first human occupations in the Antilles (Napolitano et al. 2019). However, the start of Early Ceramic period, supposed to represent the beginning of lapidary production in this region, is generally set to ca. 400 calBC. Most of the archaeological sites registered in the database relates to the Early and Middle Ceramic period (mainly Saladoid culture) and some to the Late/Final Ceramic period (mainly Troumassoid and Barranoid cultures). Only one site from the Contact Period (Cayo culture) is registered. The periodization used in this work is the one proposed by Bérard (2019).

2 Methods

2.1 Steps

The database compiled in this work has been created based on two different methodologies: piece by piece first-hand analysis, and literature screening. Both methods were used in parallel for the duration of the project. Presently, the dataset of lapidary artifacts contains 0 entries, originating from 87 sites.

Data about lapidary artifacts in the French islands of the Antillean (from south to north: Martinique, Guadeloupe, St. Barthelemy and St. Martin) have been registered thanks to missions in the museums, the storage of the Ministry of Culture, and by extracting some collections to study them in continental France. The detailed methodology is described in the case studies articles (Queffelec et al. 2018, 2020) and includes mainly photography, classic measurements with digital caliper, technological study, and mineralogical determination by eye and systematically confirmed by Raman spectroscopy.

The literature review, which accounts for the most part of the dataset, has been conducted as a long-term job. As for every literature review, it includes the reading of the major works on the subject, the literature cited by these major works. In the case of our specific study, one of the major sources of information has been the proceedings of the twenty-eight International Association for Caribbean Archaeology (IACA) congresses, in which the words *bead*, *pendant*,

perle, *pendentif*, *cuenta*, *pendiente*, *perla*, have been systematically searched for. Some unpublished information has also been recovered by directly contacting the archaeologists currently excavating sites, as well as diving in the reports from French commercial archaeology.

2.2 Sampling strategy

The artifacts integrated in this database relates to the lapidary production *chaîne opératoire* from the raw material until the finished object. From sites located on French islands, they were exhaustively studied, measured, and analyzed. There was no sampling either as for the findable literature data.

2.3 Quality control

The data that entered in the database is of heterogeneous quality. It goes from high resolution macro photos to no image at all, from Raman spectroscopy and X-Ray diffraction mineralogical studies to naked-eye *greenstone* determination, from recent excavations with complete sieving to surface collection. The authors made their best to find the best data about each artifact, including dissecting fieldwork reports, but the quality of the literature is very diverse.

Data cleaning and consistency have been realized thanks to the use of standardized thesaurus with dropdown menus to avoid typos. Graphics based on the measurements were explored in order to spot any outlier and check on its values. The mapping of the sites helped in checking the geographical coordinates values, since any typo would have probably set the archaeological site in the sea.

2.4 Constraints

Most of the constraints relate to the literature-based part of the database, since the French artifacts have all been photographed, measured, analyzed, during the project. The quality of the information in the literature is very heterogeneous, because of the seniority and/or the lack of exhaustiveness of the publications. The quality of information has been problematic for several topic of the database, including:

- the mineralogical determination of the raw material used by the Amerindians, mostly done by naked eye by untrained archaeologists
- the quality of the reproduction of ancient photographs in the numeric documents now accessible for this literature
- the lack of complete description of lapidary assemblages in most of the sites. The table or text

of the articles may list tens of artifacts, while the figures only depict 5 of them.

- the difficulty of assessing the origin of the artifacts in multicomponents archaeological sites
- the difficulty of cultural attribution for ancient excavations

Beyond these constraints related to the existing artifacts' collections, the major issue related to the completeness of the archaeological record is of course very significant. An important part of the artifacts registered in this database come from ancient excavations or surface collections by amateur archaeologists or collectors. Therefore, even if the quality of the archaeological literature would be excellent, and we could have a perfect recording in the database of the artifacts recovered since the beginning of the 20th century, it would still lack [many](#) information for technological studies of the *chaînes opératoires* due to the lack of sieving, the picking of nice and complete artifacts by collectors etc. It is also necessary to underline the differences in comprehension of the archaeological stratigraphy between ancient and modern excavations, with or without radiocarbon dating [etc.](#)

3 Dataset description

The database created in this project is made of four related tables (fig. 2), in which the Source table is still a work in progress. We will thus describe only the English tables Islands, Sites and Beads. Each table also exists in French.

3.0.1 Islands table (ISLANDS and ILES)

Island is the name of the island.

Country is the country from which the island is part of.

Region is the large area in which the island is located (Lesser Antilles, Greater Antilles, Central America, South America, North America). It includes the continent surroundings the Caribbean because this table is also used for the database of potential sources of raw materials, which is a work in progress. *Index_Island* is a combination of two letters used as short notation.

ID_Island is an unique integer for each Island of the Caribbean, taken from the **Global Administrative** database (GADM) which gives a unique integer for each administrative subdivision in the world.

3.0.2 Sites table (SITES_EN and SITES_FR)

This table is related to the Islands table by the *ID_Island* field. It therefore automatically integrates the *Island* parameter from this table.

Index_Site is the unique chain of characters identifying the site. It is composed of the *Index_Island*, a dash, and two digits for the number of the site on this island. For example, GD-01 is the first recorded site for Guadeloupe.

Site is the name of the archaeological site.

ID_Island is an unique integer for each Island of the Caribbean, taken from the **Global Administrative** database (GADM) which gives a unique integer for each administrative subdivision in the world.

City is the name of the city in which the archaeological site is situated.

Longitude and *Latitude* are the geographic coordinates of the site. They are expressed in WGS84 decimal degrees. *Precision* explains the origin of the geographic coordinates, whether from a GPS tracker, the reported data from a map or from an address given in a publication, the centroid of the city or of the island.

Dist_coast is the shortest calculated distance from the geographic coordinates to the coast.

Altitude is the altitude of the geographical coordinates taken from the SRTM Digital Elevation Model.

Type_site is the type of archaeological site, whether a cave, a village, a funerary site etc.

Nb_beads is the calculated number of artifacts related to this site in the BEADS table.

Period and *Culture* are the chronological and cultural attributions of the main occupation of the site that yielded the lapidary artifacts. They are based on the work by Bérard (2019).

ref_biblio_1, 2, 3, 4 are the short citations of the references related to the archaeological site.

3.0.3 Beads table (BEADS and PERLES)

This table is related to the Sites table using the *Site* field. Some fields are thus used directly in the BEADS table thanks to the relation between both tables, so that the final user does not have to relate both tables himself. This is the case for *Island*, *Longitude*, *Latitude*, *Period*, and *Culture*.

Index_B is the unique character chain composed of the *Index_Site*, a dash, and the number of the artifact in the site.

Site is the name of the archaeological site.

Object is the kind of object that the artifact is, for example bead, pendant, raw material.

Type and *Subtype* specifies the shape of the object, for example a pendant can be from type zoomorphic

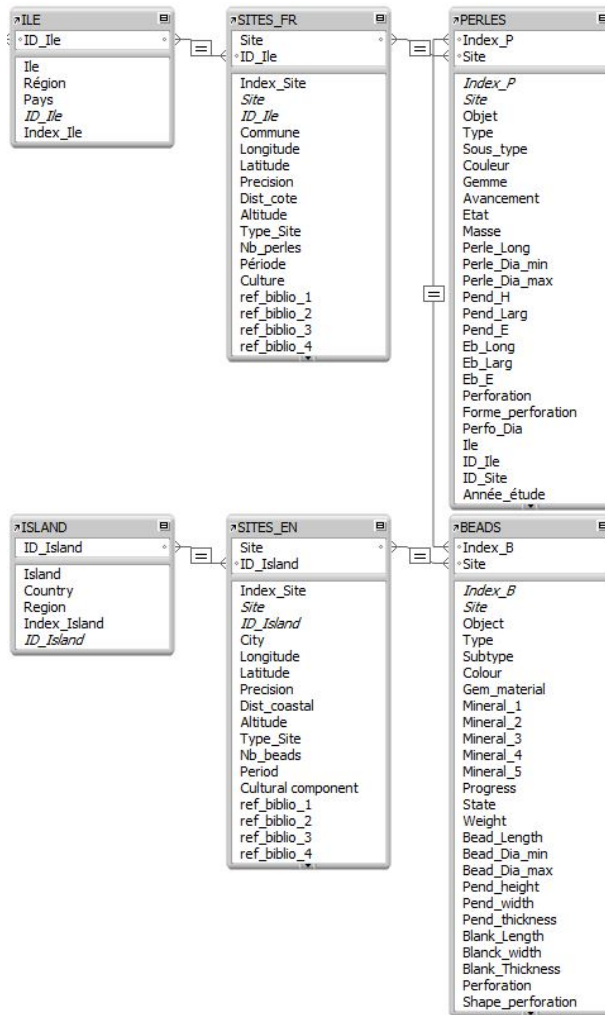


Figure 2: Relational map of the database.

and from subtype frog.

Colour relates to the visible main color of the artifact. *Gem_material* is the gem material used to produce the artifact, it is based on the *Mineral_1, 2, 3, 4, 5* and uses a list of values coming from the gemological vocabulary.

Progress states the advancement in the production of the artifact, it can be a finished object or a blank for example.

State specifies is the object is complete or broken.

Weight, Bead_length, Bead_dia_min, Bead_dia_max, Pend_Height, Pend_width, Pend_thickness, Blank_length, Blank_width, Blank_thickness are the measurement of the artifacts, expressed in millimeters, of beads, pendant and blanks respectively.

Perforation is the number of perforation.

Shape_perforation and *Perfo_Dia* specifies the shape and diameter of the perforation, respectively. The diameter is the smallest diameter usable to hang the artifact.

Structure is the type of archaeological structure in which the artifact was unearthed, for example, a midden, a pot-hole, a burial etc.

US is the stratigraphical unit which the artifact comes from.

Square is the location of the excavation, based on the excavators' system.

Level is the level of excavation which the artifact comes from.

Z is the altitude of the artifact in the excavators' reference system.

Date_BP is the radiocarbon age that can be attributed to the level from which comes the artifact from.

Date_calibrated is the calibrated age calculated from the *Date_BP*.

Year_excavation is the year of excavation of the site when this artifact was discovered.

Excavator contains the name of the archaeologist responsible for the excavation at the time of the discovery of this artifact.

Ref_storage and *Inv_site* are the references of the artifact in the curating location and the excavators' system respectively.

Storage_Island, Storage_City, and Storage_Location resume the actual curating location of the artifact.

Year_study is the year of study for the artifacts that have been investigated by the PAAF project.

Method_carac is the analytical method used to determine the composition of the artifact.

RawMat_estim is the raw material estimated in the literature, or before the use of analytical techniques.

Notes contains remarks about the artifact that was noted during the literature screening.

Ref_biblio_1, 2, 3, 4, 5, 6 specifies the publications where the artifact has been described.

Some general information are summarized in the Table 2.

Table 2: Summary of the Site dataset

| Island | Site | Nb_beads | Period | Culture | ref_biblio_1 |
|------------|------------------------|----------|----------------------|----------------------------------|-----------------------|
| Antigua | Elliot's (PH-03) | 64 | (Middle?) Ceramic | Middle Cedrosan Saladoid | Murphy-etal_2000 |
| Antigua | Mill Reef (PH-01) | 2 | Late Ceramic | Marmoran Troumassoid (Mill Reef) | Hoffman_1970 |
| Antigua | Royall's (JO-11) | 199 | (Middle?) Ceramic | Middle Cedrosan Saladoid | Murphy-etal_2000 |
| Antigua | Doig's (PA-15) | 43 | Early/Middle Ceramic | Early/Middle Cedrosan Saladoid | Gent&deMille_2003 |
| Antigua | Winthorpe Bay | 1 | (Middle?) Ceramic | Middle/Late Cedrosan Saladoid | deMille-etal_1999 |
| Aruba | Tanki Flip | 2 | Late Ceramic | Dabajuroid | Rostain_1995 |
| Barbuda | Seaview | 18 | Early/Middle Ceramic | Early/Middle Cedrosan Saladoid | Kendall-etal_2011 |
| Bahamas | Minnis-Ward | 1 | Late/Final Ceramic | Lucayan | Blick-etal_2010 |
| Bonaire | Wanapa | 3 | Ceramic | NA | Haviser_1990 |
| Carriacou | Grand Bay | 17 | (Middle?) Ceramic | Late Cedrosan Saladoid | Sutty_1990 |
| Curacao | De Savaan | 4 | Ceramic | NA | Haviser_1990 |
| Dominica | Soufrière | 1 | Early Ceramic | Early Cedrosan Saladoid | Bérard_2009 |
| Guadeloupe | Gare maritime | 59 | Early Ceramic | Huecan Saladoid | Romon-etal_2013 |
| Guadeloupe | Morel | 61 | Early/Middle Ceramic | Cedrosan Saladoid/huecan | Delpuech-etal_1996 |
| Guadeloupe | Anse à la Gourde | 28 | Late Ceramic | Troumassoid | Delpuech-etal_1997 |
| Guadeloupe | 24 rue Schoelcher | 1 | Early Ceramic | Early Cedrosan Saladoid | Etrich_2003a |
| Guadeloupe | Allée Dumanoir | 2 | Early/Middle Ceramic | Early/Middle Cedrosan Saladoid | Etrich_2003b |
| Guadeloupe | Anse à la Barque | 1 | Indéterminé | Undertermined | Turpin_2015 |
| Guadeloupe | Anse Bertrand | 2 | Indéterminé | Undertermined | Turpin_2015 |
| Guadeloupe | Anse Ste Marguerite | 4 | NA | NA | Delpuech_2007 |
| Guadeloupe | Cathédrale | 6 | Early/Middle Ceramic | Saladoid | Bonnissent&Romon_2004 |
| Guadeloupe | Butel | 1 | Indéterminé | Undertermined | NA |
| Guadeloupe | Grand Carbet | 1 | Early Ceramic | Early Cedrosan Saladoid | ToledoIMur_2003 |
| Guadeloupe | Ilet Gosier | 1 | Late/Final Ceramic | Troumassoid | Romon-etal_2003 |
| Guadeloupe | Les Mineurs | 3 | Indéterminé | Undertermined | NA |
| Guadeloupe | Plage de Roseau | 1 | Contact | Cayo | LeLay_2013 |
| Guadeloupe | Anse Vinaigri | 3 | Indéterminé | Undertermined | NA |
| Guadeloupe | La Ramée | 3 | Early/Middle Ceramic | Saladoid | Casagrande_2013 |
| Grenada | Pearls | 1412 | Early/Middle Ceramic | Saladoid | Murphy-etal_2000 |
| Grenada | Grand Anse Beach | 3 | Early/Middle Ceramic | Saladoid | Cody_1993 |
| Grenada | Caliviny Island | 3 | Early/Middle Ceramic | Undertermined | Bullen&Bullen_1968 |
| Grand Turk | Governor's Beach (GT2) | 5 | Final Ceramic | Ostionoid meillacan | Carlson_1995 |
| Jamaica | C12 Logie Green | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | C7 Harmony Hall | 3 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | C8 Wallman Town | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |

| | | | | | |
|----------------|--------------------|-----|-------------------------|--------------------------------------|-----------------------------|
| Jamaica | E2 Fort Charles | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | E5 Alligator Pond | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | K13 Bellevue | 6 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | Y19 Pepper | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | Runaway Bay | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | S12 Naggo Head | 2 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | S8 Marlie Mount | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | T1 New Forest | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | Y19 Coleraine | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| Jamaica | Y21 Fort Haldane | 1 | Early/Middle Ceramic | Saladoid | Roobol&Lee_1976 |
| La Désirade | Morne Cybèle 1 | 1 | Final Ceramic | Suazan Troumassoid | Hofman_1995 |
| La Désirade | Petite Rivière | 4 | Late/Final Ceramic | Troumassoid | deWaal_2006 |
| Martinique | Anse Trabaud | 2 | Late/Final Ceramic | Troumassoid | Mattioni_1983 |
| Martinique | Vivé | 40 | Early Ceramic | Early Cedrosan Saladoid | Mattioni_1979 |
| Martinique | Moulin l'Etang | 1 | Early Ceramic | Early Cedrosan Saladoid | Bérard_2004 |
| Martinique | Macabou | 1 | Final Ceramic | Suazan Troumassoid | Allaire_1977 |
| Martinique | Diamant | 1 | (Middle?) Ceramic | Middle Cedrosan Saladoid | Vidal_1995 |
| Martinique | Pory-Papy | 3 | (Middle?) Ceramic/final | Cedrosan Saladoid - Troumassoid | NA |
| Martinique | Perrinon-Doume | 1 | (Middle?) Ceramic/final | Cedrosan Saladoid - Troumassoid | NA |
| Marie Galante | Cocoyer St Charles | 1 | Early Ceramic | Early Cedrosan Saladoid | Stouvenot_1999 |
| Marie Galante | Grotte Cadet 2 | 1 | Late/Final Ceramic | Troumassoid | Courtaud-etal_2005 |
| Marie Galante | Stade J. Bade | 4 | Late Ceramic | Troumassoid | Serrand-etal_2016 |
| Marie Galante | Taliseronde | 1 | Early/Middle Ceramic | Early/Middle Cedrosan Saladoid | Durand&Petitjean-Roget_1991 |
| Montserrat | Trants | 602 | Early/Middle Ceramic | Saladoid | Crock&Bartone_1998 |
| Nevis | Hichmans | 1 | Ceramic | Saladoid - Post-Saladoid | Wilson_1989 |
| Puerto Rico | Hacienda Grande | 16 | Early Ceramic | Huecan Saladoid | Crock&Bartone_1998 |
| Puerto Rico | Tecla | 72 | Early Ceramic | Huecan Saladoid | NarganesStorde_1995 |
| Puerto Rico | Punta Candelerero | 592 | Early Ceramic | Huecan Saladoid | Rodriguez_1991 |
| Puerto Rico | Punta Mameyes | 4 | Early Ceramic/récent | Cedrosan Saladoid - Ostionoid elenan | Ortiz-Montanez-etal_2019 |
| Sainte Croix | Prosperity | 26 | Early/Middle Ceramic | Cedrosan Saladoid | Hardy_2009 |
| Sainte Croix | Cane Bay | 2 | Late Ceramic | Ostionoid | Hardy_2008 |
| Sainte Croix | Jolly Hill | 2 | Late Ceramic | Early Ostionoid | Hardy_2008 |
| Sainte Croix | O30. Krause | 9 | Early Ceramic | Cedrosan Saladoid/huécan | Toftgaard_2019 |
| Sainte Croix | O18. Spratt Hall | 2 | Early Ceramic | Cedrosan Saladoid/huécan | Toftgaard_2019 |
| Sint Eustatius | Golden Rock | 81 | Early/Middle Ceramic | Saladoid | Versteeg_1999 |
| Saint Lucia | Lavoutte | 1 | Final Ceramic | Suazan Troumassoid | Hofman_2012 |
| Saint Martin | Baie Orientale 2 | 17 | Late/Final Ceramic | Troumassoid marmoran (Mill Reef) | Bonnissent_2008 |
| Saint Martin | Hope Estate | 115 | Early Ceramic | Cedrosan Saladoid/huecan | Bonnissent_2008 |
| Saint Martin | Grand Case BK77 | 0 | Late/Final Ceramic | Troumassoid marmoran (Marmora Bay) | Sellier-etal_2020 |

| | | | | | |
|---------------|-------------------------|------|----------------------|--------------------------|--------------------------|
| Saint Martin | Grand Case BK78 | 3 | Late/Final Ceramic | Troumassoid | Baillif-Ducros-etal_2019 |
| Saint Thomas | Tutu | 6 | Early/Middle Ceramic | Saladoid | Righter_2003 |
| Saint Thomas | Main Street | 15 | Early/Middle Ceramic | Saladoid | Carlson_2019 |
| Saint Vincent | Arnos Vale | 1 | (Middle?) Ceramic | Middle Cedrosan Saladoid | Cody_1993 |
| Saint Vincent | Escape | 5 | Ceramic (moyen?) | Saladoid (late?) | Moravetz&Callaghan_2011 |
| Tobago | Lovers Retreat (TOB-69) | 4 | Late Ceramic | Troumassoid | Harris_1980 |
| Tobago | Milford 1 (TOB-03) | 1 | Indéterminé | Undertermined | Mones_2007 |
| Tobago | Golden Grove (TOB-13) | 271 | Late Ceramic | NA | Mones_2007 |
| Tobago | Friendship (TOB-15) | 7 | Early/Middle Ceramic | Barrancoïde | Mones_2007 |
| Trinidad | Atagual | 1 | Early/Middle Ceramic | Cedrosan Saladoid | Boomert_1987 |
| Trinidad | St. Bernard | 1 | Indéterminé | Undertermined | Boomert_1987 |
| Trinidad | Erin Bay | 1 | Indéterminé | Undertermined | Fewkes_1914 |
| Vieques | Sorcé | 1068 | Early Ceramic | Cedrosan Saladoid | Narganes Storde_1995 |

3.1 Data type

The **database** contains mainly text and numerical information, being the description of the artifacts, their context, and their measurements. The database available via the Filemaker application also contains pictures and drawings of the artifacts.

3.2 Format names and version

3.3 Creation dates

The database have been created during the PAAF Project, funded from 2016 until 2019. Minor additions have been made until the publication of this article and will continue. Updated versions of this database will be uploaded, thanks to the DOI versioning support in online archives.

3.4 Dataset creator

The database has been created in the framework of the PAAF project, lead by Alain Queffelec and Pierrick Fouéré, with the technical assistance of Jean-Baptiste Caverne. The information about lapidary artifacts from French islands are the result of analysis done by Alain Queffelec, Pierrick Fouéré and Ludovic Bellot-Gurlet. The literature based records are the result of the work done by Alain Queffelec with the help of Jean-Baptiste Caverne.

3.5 Language

The database is proposed both in French and English, in the repository and in the web application. As for the GIS online application, it is proposed in French, English, Spanish and German.

3.6 License

License CC-BY 4.0

3.7 Repository location

The Rmarkdown file and all files necessary to reproduce this manuscript are accessible in the folder Rmarkdown from the OSF project <https://osf.io/9r8zv/>.

3.7.1 Download

The full dataset is available in the Data folder at <https://osf.io/9r8zv/>. It contains the ISLANDS, SITES_EN, BEADS, ILES, SITES_FR and PERLES tables as csv files, and a bibtex file containing the references cited in the dataset.

3.7.2 Filemaker server

The database, including photos and drawings, is accessible as a Filemaker server application managed by the Huma-Num service, an institutionnal repository of the Centre National de la Recherche Scientifique (CNRS) (Fig. 3). Users can use the database in reading mode only or, if interested in participating in improving the quality of the database, can have more advanced rights by directly asking the authors. The database is located here: https://fm02.db.huma-num.fr/fmi/webd/PACEA_PAAF (click on “*se connecter en tant qu’invité*” if you just want to be in reading mode). Database is available in French and English, by changing the model (arrow in the top left corner).

3.7.3 GIS Availability (ArkeoGIS)

An online, free and multilingual GIS application allows to visualize the database with a cartographic projection (Fig. 4). A simplified version of the dataset is indeed accessible via the ArkeoGIS platform (<https://arkeogis.org/en/>). Users must register first to ~~the~~ access ~~to~~ this geographical application, since it is controlled in order to prevent archaeological looting.

61 Total 5009 Recherche rapide

Site Morel **Ile** Guadeloupe **Long** -61,331654 **Date_BP**
Context_chrono Précolombien (huecoide) **Lat** 16,332459 **Date_calibrée**
Type_site découverte fortuite **Ref_biblio_1** Durand&Petitjean-Roget_1991,
Structure Sépulture féminine **Ref_biblio_2** Turpin_2015

Général **Avancé** Iles/Site

INDEX **GD-02-001**

Object Pendentif **Sous_type** Grenouille
Type Zoomorphe
Progress Achevé
State Cassé
Weight 79,4
Bead_Length 0
Bead_Dia_max 0
Bead_Dia_min 0
Pend_Height 49,2
Pend_width 41,6
Pend_Thickness 28,1
Blank_Length 0
Blank_width 0
Blank_Thickness 0
Perforation deux trans sous
Shape_perforation tronconiques
Perfo_Dia 2,5

STRATI
US hs
Square collier
Level plage
Z -

Gem Paragonite
Colour vert
Mineral_1
Mineral_2
Mineral_3
Other_RawMat
Method_carac Raman
Provenance_proposed

RawMat_estim paragonite

Quatre perforations dans la partie supérieur. (Soit deux perforations longitudinales)

Figure 3: Screenshot of the online application.

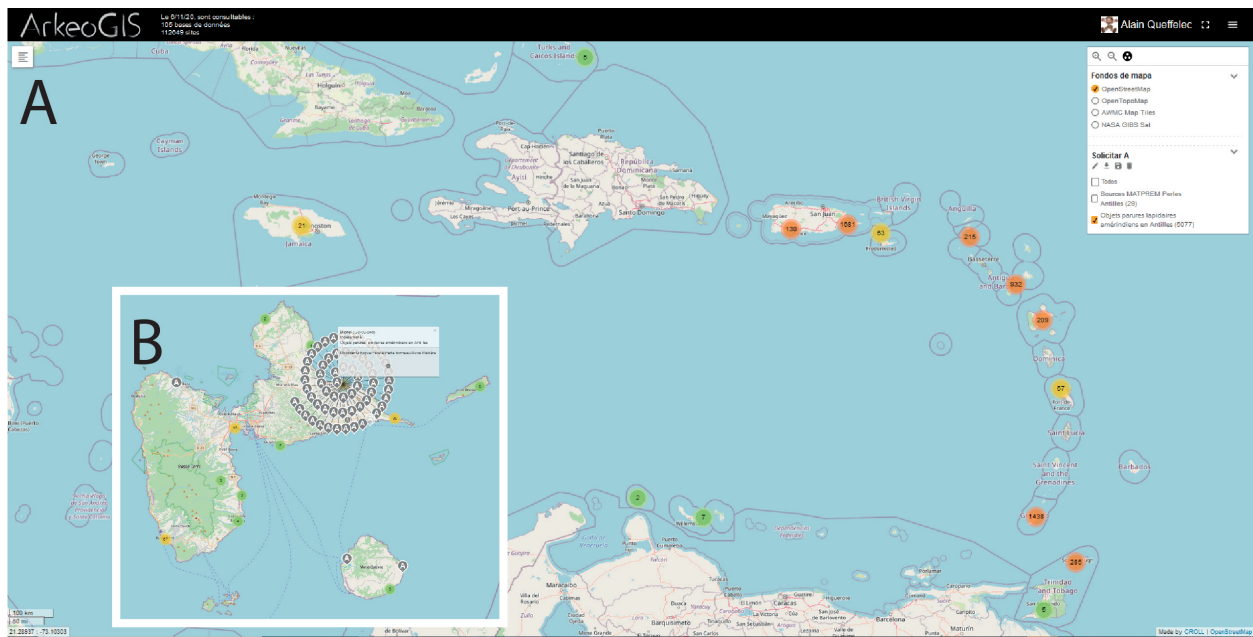


Figure 4: A. Screenshot of the ArkeoGIS application, a simplified GIS online system. B. Zoom on Guadeloupe, showing the potential of the ArkeoGIS visualization tool.

3.8 Publication date

This version of the manuscript has been compiled on the 10 novembre, 2020.

3.9 Reuse potential

This database will be very helpful for spatial and temporal analysis research in the Caribbean, including GIS and social networks studies. It provides information on the evolution and distribution of the raw materials, types of personal ornaments, stylistic evolution and distribution, for one of the major kind of personal ornaments for this region of the world.

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3.11 Competing interests

Alain Queffelec is one of the co-founders of PCI Archaeology.

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