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The Ing. Raseau manuscript large-scale maps of Cyclades, a case of French military thematic cartography of late seventeenth century with remarkable aesthetic value

Keywords: Ing. Raseau, Cyclades, Aegean Archipelago, 17th century maps, manuscript maps, Échelles du Levant

Summary: In 2016 a unique ensemble of rare large dimension manuscript maps, representing a number of islands of the central Cycladic archipelago in the Aegean Sea, was found in the important Tricoglou Library part of the Aristotle University of Thessaloniki Central Library. The maps of this ensemble, mounted in a volume called *Receuil Raseau*, made after the orders of Louis XIV of France in the period between 1685-1687 by the engineer Raseau, are considered as exceptional example of military medium-to-large scale mapping, in the context of the French naval mapmaking of the last quarter of seventeenth century.

The maps stand beyond the cartographic stereotypes of the Archipelago made by skilled amateurs and scholars, well known and documented in the history of cartography of the Aegean Sea. The general first approach analysis of the *Receuil Raseau* maps, in the cartographic terms of “internal” and “external” map recognition as well as in terms of the relevant historical context has been already presented by Livieratos et al., (2016). The research on this extraordinary example of naval military mapping has since then advanced and new results came in evidence; some of them are presented in this paper, focusing especially into the thematic cartographic component of the map content.

Introduction

The *Recueil des Cartes de Partie des Isles de l’Archipel levées sur les lieux par Sieur Raseau Ingénieur ordinaire du Roi* is a collection of manuscript maps of the Cyclades made by the French in 1685-1687, during the first phase of the “Große Türkenkrieg”, the “War of the Holy League” against the Ottoman Empire (1683-1699) of the Habsburgs with their allies, the Polish-Lithuanian Commonwealth, the Spaniards, Russians, Hungarians, Venetians and other minor powers of the time. The *Recueil Raseau* is catalogued since the late eighteenth century (Basan, 1775), in a 418 pages list of items of culture and arts, prepared obviously for the needs of an auction. The French mapping campaign in the Cyclades, only two years after the outbreak of war, followed specific orders addressed by the court authorities of Louis XIV, towards a probable geopolitical plan potentially applicable in Eastern Mediterranean by the French (Thommasy, 1841), in view of the ongoing War of the Holy League against the Ottoman Empire not only in Central Europe but also in Peloponnese, where the Venetians were struggling the Ottomans for

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1 *Recueil Raseau* is a large dimensions volume of late 17th century manuscript maps, kept in the Tricoglou Library of the AUTH Central Library; an important rare item of the library donated to AUTH in 1963 by Ioannis Tricoglou (1888-1966), a passionate bibliophile, distinguished member of the Greek Diaspora in Egypt.

2 In the catalogue of P.-J. Mariette’s collection of curiosities of arts and sciences, prepared after Mariette’s death (1774), (Basan, 1775), under item number 218, in the category of drawings (dessins), serial number 1416, it is reported: “Un grand Volume in-folio, relié en maroquin, contenant vingt Cartes des Isles de l’Archipel, dessinée & lavées avec le plus grand soin par le Sieur Raseau, Ingénieur du Roi, & envoyé à cet effet sur les lieux par Louis XIV en 1690. Ce Vol. vient de la Bibliothèque de M. de Colbert, & est tres-intéressant.”
the conquest of the strategic “Morea”. 3
At that time, the presence of France in East Mediterranean was already long thanks to the trade agreements, the well known capitulations agreed in the first half of 16th century during the reigns of François I and Suleiman I, the Magnificent; the trade agreement, which was extended to cultural issues as well, updated in 1569 by Charles IX and Selim II, was always prolonged to the fall of the Ottoman Empire in early 20th century, having obviously ups and downs and diverse agendas varying in the course of time according to political circumstances (Farganel, 2005).
In the context of the capitulations France developed an important network of nodal strategic places of control in East Mediterranean, the Échelles du Levant, which played an important geopolitical and strategic role for the presence and influence of the French in the region. Especially during the reign of Louis XIV the Échelles become a strong military and intelligence issue for his presumed secret plans against the Ottoman Empire, culminated in the second half of 17th century (Omont, 1893, recalling the very representative 17th century reference by Étienne Gravière d’Ortières4).
In this historical and geopolitical context, the mapping of Cyclades by the French deserves particular attention. It can be also seen as the focused (or the ad hoc) continuation of the efforts of France under the Grand Colbert administration, during the long reign of Louis XIV, to develop, update, upgrade and revise the older maps of the coasts of the Mediterranean which was a major concern, starting in 1678, after the establishment and the advancements of the Académie in 1666 and the Observatoire in 1667. Colbert’s project for the innovation of sea and coast mapping, including the Aegean Sea (Boutoura et al., 2011) was systematically continued with care for quality and precision by his son Colbert de Seignelay, who was named by Louis XIV as the Navy Secretary in 1683, just when the “Große Türkengier” was started, followed southwards by the Venetian – Ottoman conflict in Peloponnese, in the vicinity of Cyclades, headed by Morosini, whose military operations offered to the Serenissima the possession of the geostrategic “Morea”, for some decades, and to cartography the first semi-topographical Venetian mapping of Peloponnese (Livieratos & Boutoura, 2014).

The mapping of Cyclades - Receuil Raseau

In a short typewritten note dated 1938, found as an accompanying note within the Receuil Raseau, the naval officer Jean Vivielle,5 gives some clues about this mapping at that time in that geographical area (Livieratos et al. 2016). Vivielle, the experienced author of this note, apparently written ad-hoc, gives the starting information about the mapmaker, the engineer Raseau/Razaut

3 “Morea” and “Morée” are respectively the Venetian and the French names for Peloponnese at that period and later.
4 Étienne Gravière d’Ortières: Etats des Places que les Princes Mahométans possèdent sur les Côtes de la Mer Méditerranée et dont les Plans ont esté levez par ordre du Roy à la faveur de la Visite des Eschelles de Levant, que Sa Ma.té a fait faire les années 1685, 1686 et 1687, avec les Projets pour y faire descente, et s’en rendre Maîtres, Paris, BnF, ms. français 7176.
5 Jean Baptiste Adolphe Vivielle (1875-1944); a naval officer enrolled in the French Navy in 1892. After following a long career in the command of war ships he appointed Director of the Port of Thessaloniki in 1919, following the Armée d’Orient in the Expédition de Salonique (Macedonian Front) during the Great War. After his retirement in 1920 he served as the president of the Académie de Marine (1936-1937); author of fourteen publications on various historical and technical issues; more: http://ecole.nav.traditions.free.fr/officiers_vivielle_jean.htm. In 1938, the year Vivielle compiled the typewritten note found in Receuil Raseau, he was curator of the Bibliothèque du Service hydrographique de la Marine in Paris. Obviously, Vivielle was commissioned, due to his position and knowledge, to report on the Receuil Raseau by its seller and/or the buyer in 1938.

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and the political-operational military milieu at the period of a specific mapping in the Cyclades from which the maps are derived, plans and views superbly represented in the volume by a skilful and talented hand.

Vivielle’s short narration (based on the Annales Hydrographiques of 1914) recalls the advances of the French mapping in the Mediterranean in the late 17th century, giving reference to the King’s engineer Razaut (the Raseau of our Recueil) who undertakes in 1685, together with the known personality of that time captain Jacques de Cuers-Cogolin, important coastline military hydrographical surveys in Corsica and Sicily before taking an urgent order to sail to the Aegean Sea, l’Archipel, in 24 April 1685, for an “exact survey” of the islands. The order was for one-year operation, to 1686; this short duration shows the urgent character of the mission. Vivielle reports on the royal “Recommandations pour le Sr. Razaut”, which in summary concerned the provisions to be taken by Cogolin, in cooperation with Razaut, in order to bring on board of the ship, for the campaign to Cyclades, the necessary already existing printed maps, representing the region of interest, “the newer and more accurate existing so far in representing the coastlines”, in order to assist the new mapping work at the Aegean and the surrounding coasts. This means that the Cogolin-Raseau mapping mission was not so much pointed at the improvement of the coastline geometric shape of Cycladic Islands, but was majorly oriented to the thematic semantics of the map content prepared in the cartographic campaign, which it is visible - in the expert’s eyes - in the maps of Recueil Raseau.

The same royal order addresses also provisions to ensure the undercover of the mapmakers in the vests of common merchants, asking further Cogolin “to make all possible arrangements with Razaut in order to make modern and proper maps, plans and views so far missing”. The order was further asking, “for carrying out the whole campaign in great secrecy (le plus grand secret)”, requesting “the determination of geographic latitudes of remarkable places by using positioning observations to the North Polar Star”.

The maps and plans

Recueil Raseau consists of sixteen two-page maps depicting fifteen Cycladic islands either partially or in their whole. Each map and plan is represented in scales varying from ca 1:5,000 to ca 1:70,000, the map depicting all islands given in ca 1:200,000 scale; the Recueil is completed with six single page-sheets with depicting twenty-four scaled coastline views as seen horizontally from the sea at a distance.

All the islands depicted in Recueil Raseau are shown in Fig. 1. An example of the coastal views as seen from the sea surface is shown in Fig. 2.
Figure 1. All the Cycladic islands represented in *Receuil Raseau* as depicted in one map in scale 1:200,000 (left) and their spatial correspondence shown in a modern map (right). To these maps it is added in the *Receuil* the Kythira Island (Serigo) represented with its small attachment Elafonisos (Cervi). Kythira is the strategically positioned island at the entrance to the Aegean Sea sailing from Central Mediterranean, the straights between Peloponnese and Crete.

Figure 2. Example of the coastal views as seen from the sea surface at a defined distance; the city of Zante (up) seen from three miles and the city of Modon (down) seen from six miles.

Georeferencing the collective map in *Receuil Raseau* the resulting global 11 degrees rotation of the map with respect to the geographic north (Fig. 3) corresponds exactly to the magnetic declination explicitly drawn in all the *Raseau* maps (Fig. 4a, left), with the exception of the area close to the Milos Island in southwest where the recorder magnetic declination reduces to 9 degrees (Fig. 4b, right) evidently due to the local magnetic anomalies caused by the geothermal fields in the island, known since the antiquity.
Figure 3. The global 11 degrees rotation due to the georeferencing of the collective (general) map in *Receuil Raseau*. This rotation corresponds exactly to the 11 degrees magnetic declination recorded in all maps of the *Receuil*. The 25 degrees meridian passes from the small Despotico Island, almost attached to the Antiparos Island. In the up-left image, a draft map of the general map is shown signed by Raseau (Razaud), kept in the BnF, Paris, dép. Cartes et plans, GE C-10430. The graticule and rhumb lines depicted in the two general maps (up) are quite different, the AUTH Tricoglou Library map (up-right image) looking clearly upgraded.

Figure 4. The 11 degrees magnetic declination from the geographic north (a; left) recorded in all maps of the *Receuil*. The exception of the 9 degrees magnetic declination near the geothermal fields of the Milos Island (b; right). The 25 degrees meridian passes from the islet Despotico, attachment of Antiparos Island, west of Paros Island.
The maps in *Receuil Raseau* referred to military cartography of 1685 is some steps forward comparing with the current cartographic products of late 17th century, well known in the standard literature of history of cartography, as it can be shown in Fig. 5: the Da Vignola map of the same geographical area is far less consistent in major cartographic terms; see e.g. the spatial misplacement of the islands, the deviations in shape and size, the irrelevant orientation etc.

Two prominent cartographers of 18th and 19th centuries, the marine cartographer Jacques Nicolas Bellin (1703-1772) and the scholar cartographer Barbié du Bocage (1760-1825) give both reference to the Raseau/Rezau(t)d maps of Cyclades. The first (Bellin, 1738) in his just eight-pages memorandum about the mapping of the Aegean Sea reviews: “Le Mile, l’Argentiere, l’lsle Brulée, Chisante, Paros, Naxie, Nio, Sequino, Policandre, &c. ont été levées en 1680, par M. Razaud Ingenieur du Roy; ainsi nous les avons suivi dans leurs figures & positions, & nous les avons trouvées d’autant plus justes qu’elles s’accordent avec les Relèvements faits entre ses Isles par les Vaissaux du Roy le Diamant & l’Aquilon en 1735” (Livieratos et al., 2016).

Barbié du Bocage (1799) on the other hand, refers to the general map of the fifteen islands represented in the *Recueil*, naming the mapmaker Razaud: “La figure que j’ai donnée aux îles Cyclades est prise, en partie, d’une grande carte manuscrite des îles de Mélos, Paros, Naxos, et autres voisines, levée en 1685 par le sieur Razaud, ingénieur, dont j’ai eu communication au Dépôt de la marine, et que j’ai assujettie aux opérations de M. de Chabert”.

![Figure 5. Left: Cantino Da Vignola map of the Cyclades (1685); Right: the Raseau setting of the same geospatial area.](image)

**Geometry vs Thematics**

As said before, the major concern of the maps collected in the *Receuil Raseau* is concentrated less in the geometric component of the representation, as it is evident, e.g., in the shape of the coastlines (Fig. 6); on the contrary, the thematic counterpart is represented with exceptional care

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6 In this quoting Bellin generally refers to the 1680’s surveys in the Archipelago and the Eastern Mediterranean giving good credit to Raseau’s measurements and results found after some decades in good agreement with relevant results obtained from the surveys made by the engineers on board of the newly constructed 40-cannon class frigates Diamant and Aquilon. In the same report Bellin gives a second reference to Raseau for his mapping of Smirne in 1687 (p. 7-8): “L’Observation astronomique de latitude & de longitude faite à Smirne, est le point fixe d’où nous sommes partis, pour assujettir le Plan particulier de tout ce Golfe levé en 1687 par le sieur Razaud Ingénieur ordinaire du Roi”. Bellin refers to Raseau’s astrometric positioning for geographic latitude and longitude determination of reference fixed points in key-places of the Aegean Sea and Eastern Mediterranean. Positioning these reference points (Thessaloniki among the sites) in the second half of 18th century, thanks to astrogeodetic measurements, the French, made corrections to the nautical charts of the Archipelago.
and skill.

Figure 6. The deficiencies in the geometric map content: coastline mismatch when comparing with modern counterparts. The deviations and deformations are visible after the comparison with modern cartography.

But even if the general statement about the geometric deficiencies of the Raseau map content is valid, on the other hand one has to underline the care of the hydrographical survey (i.e. the measures of depths) close and off the coastal zones of the islands, which is part of the geometric map content, especially when dealing with islanding cartography, associated also with careful qualitative thematic evaluation of the sea bottom. The same discussion can be made for the consistency of the graticule reference, namely the tracing of the geographical meridians and parallels together with the magnetic declination, which is carefully recorded appropriately and in skilful manner the very local magnetic anomalies caused in the vicinities by the geothermal fields of the Milos Island (Fig.4).

The focusing on the thematic content of the maps is clearly evident when examining the cartographic association of the almost oblique representation of the ground relief with the depiction of the coastline, especially related to the areas often approachable by the ships, such as the important anchorages. A typical example is the case of the main moorage of the Milos Island (Fig. 7).

The bird-eye representation is followed explicitly throughout the maps of the Receuil enriching thus the aesthetic cartographic value of the map content, together with the exceptional artistic drawing skill, at the level of high-class painting. Some examples (Fig. 8) of bird-eye relief and shading technique show the high aesthetics of the map representation.
Figure 7. Two different representations of the same geospatial area, from two separate maps within *Receuil Raseau*. The shape of the coastline is almost the same, implying common base map, but the relief representation varies according to the *bird-eye* spatial point of view, implying the view when approaching the coasts from the sea.

Figure 8. Examples of *bird-eye* view representations of the terrain relief and shading.

**Thematic map content**

As already said, the apparently imposing elements in *Recueil’s* cartography are those associated with the thematic component of the maps. It is evident the interest for having on one hand an hydrographically sufficient documentation for the seamen approaching the islands and on the other a typical military reconnaissance cartography emphasising all those thematic elements, which are important to satisfy the military needs for approach, safe encampment, sighting and observation, recovery, supply, disembarkation and landing, safe navigation, crossing and mooring.
and other elements of military interest related to the physical and man-made worlds, according to the orders (Thomassy, 1841) given to the ship-captains, surveyors and cartographers.

**Thematic elements and attributes**

The two major groups of elements shaping the thematic component of the *Recueil Raseau* cartography are related to the physical and the man-made worlds. These two groups can be seen separately or combined, depending on the type of the thematic-cartography analysis to follow. Here, not intending to deepen into the thematic analytics, we limit to expose the representational typologies depicted in the maps according to the two cases of elements with all the implicit relevant attributes that can be derived after a detailed analysis. The obvious result of this exposition is the high aesthetic value of all depictions that in some cases foreshow the grand streams of artistic painting in the centuries to come.

In the first case (physical elements) we have the natural characteristics, e.g. the ground relief and the heights, the spaces suitable for military encampment, the water supply and streams, and the thematic elements and attributes related to the hydrographical characteristics, i.e. the bathymetry, the seabed typology, the rugged coasts, the sea narrows, the leeward mooring etc. (Fig. 9).

![Figure 9. Examples of the thematic content representation’s physical-element characteristics.](image)

In the second case (man-made elements) we have the characteristics associated with the human activity and concern, e.g. the settlements, villages and sparse or isolated buildings, the castles and fortifications, the windmills (a typical built element in Cyclades), water reservoirs, country churches, chapels and monasteries, the trees, the cultivations and farming, the saltpans etc. (Fig. [207])
Figure 10. Some examples of the thematic content concerning the man-made element characteristics of the representation; in this case is strongly visible the interaction with the physical mapped space.

In this case of the representation of man-made thematic elements and features, the views contained in *Recueil Raseau* is also worth mentioning, concerning the built environment as seen from the sea when approaching the islands. A typical example of the built space in the late 17th century Cyclades is shown in Fig. 11; this view offers the basis for further analytical approaches and studies, e.g. of historical architectural interest and for other relevant comparative analyses, the aesthetic evaluations apart.
Comment on the map aesthetics

The first spontaneous impression got when browsing the *Recueil Raseau* is the extraordinary aesthetic value of the setting of the cartographic representation on the two-page sheet, the drawing and the colouring, the peripheral decorations and most of all the excellent representation of the ground relief and its shading, of the hand made maps and views, the geometric ambiguities apart, subject of another discussion. It is clearly visible the concern of the artist cartographer to prepare a volume for a library worthy of a very distinguished person. A comment in the description of the *Recueil* in the Mariette Catalogue (Basan, 1775) indicates that the volume “...vient de la Bibliotheque de M. de Colbert & est tres-intéressant”; recalling the date of death of Grand Colber (in 1683) the distinguished person to whom the *Recueil* was prepared as a present, is his older son Jean-Baptiste Antoine Colbert, known as (de) Seignelay, actively present in the affairs of the mapping mission to Cyclades in 1685, continuing his father's state legacy for the enforcement of the French Navy and of its hydrographical capacities. Since Seignelay died young in 1690, after only seven years in Office, it is reasonable to think that this volume was majestically prepared for him, the French Navy Secretary, offered for his own library in the period between 1687 and 1690.

Evidence of the special care and involvement in preparing the *Recueil* is the high aesthetic value of all depictions, in some cases “foreshowing” the grand streams of artistic painting in the centuries to come, namely recalling untimely the later French Schools of Grand painting, e.g.
Claude Monet’s *Impressionnisme* (Fig. 13) or Georges Seurat’s *Pointillisme* (Fig. 14); the same holds for the decoration of the cartouches, sometimes addressing various messages with political, navigation and everyday life contexts (Fig. 15).

Figure 13. The high aesthetic value of *Recueil Raseau*’s cartographic representation (left), untimely recalling *Impressionnisme* (right).

Figure 14. The high aesthetic value of *Recueil Raseau*’s cartographic representation (left), untimely recalling *Pointillisme* (right).

Figure 15. Examples of the highly artistic decoration of map cartouches. *Left:* the angel of the winds pointing at the strategic southeast coasts of Peloponnese, between Kythira (Serigo) Isl. and Elafonisos (Cervi) Isl.; *right:* the symbolic depiction of the Lions, among the emblems preferred by Louis XIV, threatening aggressive “irregulars” armed with club and Morgenstern.
Conclusion

The manuscript large dimensions and medium-large scale French maps of the major part of the Cycladic Archipelago referred to the Louis XIV engineer Raseau (1685-1687), kept in the Tricoglou Library by the Aristotle University of Thessaloniki Central Library, under the general name Recueil Raseau are rare pieces of cartographic expertise and especially of high aesthetic value. Majorly of thematic cartography military interest, it is associated with the intense French naval activity in East Mediterranean and the Aegean Sea, linked with hydrographical surveys and astronomic positioning measurements for mapping purposes. The Recueil appeared in a critical period for European history constrained by the “Große Türkienkrieg” with collateral effects in the Aegean Sea and the surroundings resulting the Venetian rule in Peloponnese and the relevant mapping activities there. The maps of the Recueil Raseau are outstanding for rarity, scale and especially the high representational skill demonstrated in the general cartographic setting and map drawing.

The emphasis on the thematic content of the maps offers unique information about the physical and man-made environment of the Cyclades thanks also to the large-scale visualisation, which is almost an innovation for the scales used at that time in this region. Another issue in the discussion about visualisation is the use throughout the Recueil of the perspective bird-eye representation combined with advanced depictions of the ground relief and shading.

The remarkable aesthetic value of the maps outlined in this paper supports the belief that the maps prepared for a high political personality of the period 1685-1690; this was the head of the French Navy, in the Cabinet of Louis XIV during the first phase of the “Große Türkienkrieg”, Colbert de Seignelay, the oldest son of Grand Colbert, in the shadows of the relevant ambiguous geopolitical planning’s in the Court of Louis XIV with respect to the relations with the Ottoman Empire.

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Gravière d’Ortières Ét., Etats des Places que les Princes Mahométans possèdent sur les Côtes de la Mer Méditerranée et dont les Plans ont esté levez par ordre du Roy à la faveur de la Visite des Eschelles de Levant, que Sa Ma.té a fait faire les années 1685, 1686 et 1687, avec les Projets pour y faire descente, et s’en rendre Maistres, BnF, ms. français 7176, Paris.


