

JESÚS LÓPEZ REQUENA

I. E. S. Alfonso VIII. Cuenca

The maps of the navigation project of the Tagus by Carlos Simón Pontero (1755)

I. INTRODUCTION: THE PROMOTER, CARLOS DE SIMÓN PONTERO, AND HIS PROJECT

Carlos de Simón Pontero's (born 1715 Chillarón del Rey, Guadalajara – died 1757 Madrid) family was very important for the Bourbon Administration in Spain. He worked as a lawyer in Madrid from 1736 until his death. He was also the first man to be entrusted with the duty of Assistant Prosecutor in the Council of the Royal Chamber of Castille in 1741. He collaborated with Father Burriel on his revision archives between 1750 and 1756. For his services in the Royal Patronage, he was granted the honorary title of Mayor of the Royal Household and Heritage to the Crown of Spain.

The food and fuel shortage crisis in Madrid between 1753 and 1754 led him to think that the best solution to the supply crisis was enabling navigation through inland waterways near the capital, namely the rivers Tagus, Guadiela and Jarama. In 1755, he submitted his proposal before King Ferdinand VI to solve the capital's procurement problems. Between 1756 and 1757, he attempted to set up the Royal Tagus Navigation Corporation, under royal warrant. However, the numerous obstacles posed by different ministries, a lack of financing and the early death of Carlos de Simón thwarted his attempts.

II. JOSÉ BRIZ AND PEDRO SIMÓ'S ACKNOWLEDGEMENTS AND THEIR CARTOGRAPHIC PRODUCTIONS

On the 31st March 1755, Carlos de Simón Pontero's

proposals were officially submitted to the King. Soon after filing his proposal, Carlos de Simón procured José Briz and Pedro Simó y Gil, experts in river navigation, to reasearch the possibilities of achieving his goal. Both experts have been traditionally considered as specifically military engineers, however, with their involvement in Carlos de Simon's project, this is clearly incorrect. On the 12th July 1755, they were given very precise instructions to undertake this task. These instructions contained references to old maps, and information on how to explore the rivers and on how to draw up the new plans and maps.

We know of this endeavour thanks to a diary written by their expert witnesses and published by Cabanes (1829a, pages. 90-102). During our research, we have had the chance to read two handwritten copies of said diary, one held in Lázaro Galdiano Foundation (FLG, sign. M 1-4-21) and the other in the Royal Library in the Royal Palace (RBPR, sign. II/2068). This is the part of Carlos de Simon's project since it has already been studied by the academics López Gómez (1998, pages. 127-133), Pérez Boldó (2001, pages. 455-461), Arroyo y Camarero (2004, pages. 77-80) and Esteban Cava (2015).

José Briz and Pedro Simó y Gil's endeavour started on the 15th July 1755. On the diary we can find information on the spots chosen to stop and draw the first maps. On the 15th November, they handed in part of the material, where we can find unfinished, albeit with some details, maps of the rivers Tagus, Guadiela, Manzanares and Jarama (which equals to 130 meters of paper delineated). Furthermore, they also delivered a general map.

On the 20th December, Carlos de Simón Pontero submitted before the King the final project, also known as the *Second Representation*, which has remained unedited until 2018. The Second Representation had been referred to in the aforementioned handwritten diaries. There we can find all the cartography consigned to the King. It was organised as follows:

- A. Map of the river Tagus course.
- B. Map of the River Guadiela course.
- C. Map with the navigation difficulties (which complete the document *Papel de Reparos*).
- D. A copy of all the original drawings, divided into six scrolls.
- E. Two chorographies reduced to the eighteenth scale of its original size. One focuses on the rivers Tagus, Guadiela and the other on rivers Jarama and Manzanares.
- F. Map of Aranjuez and its gardens.

Maps A and B had been originally produced by Pontero and had previously been submitted in the *First Representation* in March. The rest of the documents were drawn by Briz y Simó. The river maps were definitely many more in number than the ones previously submitted. To this list, we should add other maps accurately drawn by these two experts: the natural thermal water springs in Trillo, Sacedón, a proposal of premises for the canal along the river Manzanares, close to Madrid.

We know that in 1792, when the Count of Aranda showed interests in the maps, which he had previously had notion of personally as the project was submitted to his examination back in 1756, they were no longer in the Administration archives. Cabanes (1829b, page. 46) relates that Agustín Blas owned them and he offered them to king Ferdinand VII. Therefore, sometime between 1823 and 1829, the maps were bought by the minister of Finance Luis López Ballesteros. Cabanes, then, made a copy of these maps and published them in his works. After this event, the maps were thought to have gone missing. Only Capel (1983, page. 83) mentions briefly the maps by Briz and Simó in the Geographical Army Service Records but with an incorrect date and Carreño (2004, page 35) makes reference to the etching of the *Second Representation* shown in the map (fig.1)

III. AN ORIGINAL MAP BY BRIZ AND SIMÓ: THE CHOROGRAPHY OF THE RIVERS TAGUS AND GUADIELA LANDFORMS FROM THEIR SOURCE TO TALAVERA

This map is on display in room IV of the permanent exhibition held in the Geography Centre of the Spanish Army. It has the signature Ar.E-T.10-C.única-4. As the letter E appears in the signature we undoubtedly know it is map E of the *Second Representation*. It is handwritten, drawn and colored and it measures 361'4 x 41 cm. It was originally formed by 7 sheets stuck together. To ensure its preservation, it was embroidered onto cloth and was divided into just 6 parts, which measure between 71,4 and 72,2 cm. The seventh part was lost, which corresponded to the source of the river Tagus. The map is finely decorated and framed in red. We can also notice the cardinal points (fig. 2 to 6).

Presiding the cartouche, profusely decorated, Carlos de Simón Pontero's heraldic Coat of Arms appears along with the actual title of this map: Rivers flowing into Tagus and Guadiela, from their sources to Talavera (*Rios, que entran en Tajo y Guadiela, desde su nacimiento hasta Talavera*). We can find the different tributaries into Tagus and Guadiela. They evidence some differences in spelling compared to their current names. There is also a graphic scale of 4 Castilian leagues. The map has an approximate scale 1:94.000. The lost fragment would depict on its upper part, the course of the river Tagus. On its lower part, there would be another cartouche with the original map's title, which we presently know thanks to Cabanes (1829b, page. 46): *Curso Ydrographico y Chorographico de los ríos Tajo y Guadiela que en obsequio del Rey Nuestro Señor D. Fernando VI y con direccion y a expensas del D.º D.º Carlos de Simón Pontero de su Consejo y Alcalde de Casa y Corte Han delineado D.º Joseph Briz y D.º Pedro Simó y Gil. Año de 1755.*

This map shows the river Tagus from Talavera to Peralejos; the full course of the river Guadiela and its tributary Cuervo together with a part of Escabas; the lower course of river Jarama from the mouth of river Manzanares; river Tajuña and a very small part of river Alberche. All this area encompasses the current Spanish provinces of Toledo, Madrid, Cuenca and Guadalajara.

Regarding the natural landscape, the mountains have been represented in grey. There are greater details with regard to the river banks. We can read only a few place names. Vegetation is depicted as trees in green and brown. When it comes to portraying crops, plants or trees, they are represented in a straight line. The sophisticated land-

scape and garden design in Aranjuez is roughly featured. We can observe some natural springs, all the gullies, every river and most of their tributaries. The river courses are schematic. The lagoons and the beautiful source of the river Cuervo have been highlighted.

Settlements have been depicted as groups of buildings in red and yellow. We can identify 113 settlements, three of which are cities: Toledo, Aranjuez and Talavera. Furthermore, we can find 4 monasteries, 12 shrines, 2 chapels, 5 inns, 8 castles, 4 thermal natural baths, 2 salt mines, and 1 brick and tile workshop. We can see bridges with various details: 15 along the river Tagus, 2 over the river Guadiela, 1 on the river Jarama and 1 over the river Alberche. Likewise, there are 18 barges for crossing the rivers. All of this information offers us an accurate rendering of every river crossings rivers (with the exception for the river Guadiela, where there are practically no crossings).

Briz and Simó were especially careful to identify all the river sailing difficulties. They explained this matter further in another written document called *Papel de Reparos a la Navegación*, published by Cabanes (1829a). We have also analysed the handwritten files held in the Lázaro Galdiano Foundation (FLG, sign. M 1-4-21) and in the Royal Library in the Royal Palace (RBPR, sign. II/2069). They all contain the same information as on the map but with lesser detail, since the scale is far smaller (fig. 2 to 6).

The river sailing difficulties include both natural and manmade obstacles. Among the natural sailing difficulties, we must consider the amount of rocks in the course of the rivers, fallen rocks, whirlpools and sand banks. Similarly, the manmade obstacles we can find in each river on the map are as follows: over the river Tagus 23 active and 10 lost windmills; over the river Guadiela and its tributaries we can find 8 functioning windmills and 4 out of order. We can also find in the map 5 fullers, 2 water-powered trip hammers and other 2 ironmongers. All these obstacles were notably numerous in the river Tagus meander near Toledo.

To avoid various meanders in the river and manmade obstacles, the aforementioned document *Papel de Reparos* proposed a network of canals and tunnels, some of which appear on the map. The most important one was the solution to avoid Toledo, bypassing the city in the north. They also mention the possibility of linking the small river Escabas with the river Júcar, so as to enable sailing from inland Spain along rivers into the Mediterranean sea.

From this original masterpiece, Cabanes copied and published in his works all the different maps (1829b),

which Professor López Gómez studied many years later (1998, pages. 133-136). They are but modified black and white copies of the original, with a modern typography. Nevertheless, they are very true to the original (figs. 7 to 9).

IV. THE FIRST COPY BRIZ AND SIMÓ'S MAP: AR.E-T.10-C.ÚNICA-2 IN THE CARTOGRAPHIC ARCHIVES FOR GEOGRAPHICAL STUDIES HELD IN THE GEOGRAPHY CENTRE FOR THE SPANISH ARMY

In the very same archive where the original map is held, we can find the first copy of it, which measures 80'1 × 19'8 cm. It is formed by two sheets embroidered onto cloth (figs. 10 y 11).

This copy is a handwritten map, mainly monochrome which shows the compass rose with a *fleur de lys* symbol. The scale is 20 leagues, which results approximately in 1:518.000. The title is very long: *Plan del Viage, ó reconocimiento que hicieron de los Rios Tajo, y Guadiela desde sus nacimientos hasta Talavéra; y del de Manzanares desde el Real Sitio del Pardo hasta el de Aranjuez, D. Joseph Briz, y Don Pedro Simó y Gil, Peritos nombrados por D. Carlos de Simón Pontero, en virtud de orden de S. M. con acuerdo del Sr. Conde de Valdeparaiso, su Ministro de Hacienda, para que pasasen á dho. reconocimiento á expensas de dho. Don Carlos, como lo hicieron. Este Plan fué aprobado por el Conde de Aranda, Comandante gral. del Cuerpo de Artilleria, y del de Ingenieros en el año de 1769.*

The territory depicted on this map is more extensive. It includes the upper and the middle course of the rivers Jarama and Manzanares. Mountains are depicted in grey. We can differentiate 129 settlements, marked by a circle and a simple group of buildings. We can highlight the cities of Madrid, Toledo, Talavera, Aranjuez y Alcalá. There is lesser detail than in the original. The date of this map is 1769. This copy may have apparently been produced relating to Mansart de Sagonne's project, which was submitted to King Charles III of Spain, in an attempt to resurrect the Royal Tagus Navigation Corporation.

In the 19th century, this map was used to perform some works. Today we can see visible pencil traces on it (fig. 12). They traced two graduated axes by the rivers Tagus and Guadiela. A geographic network, calculations, along with new graphic scales was designed. Also, the actual locations of some settlements were corrected.

V. FINAL CONCLUSIONS

1. On march, 31st 1755, Carlos de Simón Pontero presents before king Ferdinand VI his idea of enabling navigation in the rivers Tagus, Guadiela, Jarama and Manzanares to improve all goods supply for Madrid. Afterwards, he commissions José Briz and Pedro Simó Gil to do some research on these rivers. They carry out the study between the 15th July and the 10th August of that very same year.

2. Briz and Simó wrote a *Diario* and the document *Papel de reparos a la navegación* and draw an amazingly large number of maps which depict rivers such as Tagus, Guadiela, Manzanares and Jarama; the royal site of Aranjuez, the royal natural springs in Trillo, the town of Sacedón and the premises by the river Manzanares for sailing. They also produce two smaller scale maps, one with rivers Tagus and Guadiela and the other one with rivers Jarama and Manzanares. All of these documents were included in the *Second Representation*, which had been unedited until now, submitted to the King by Pontero on 20th December 1755.

3. In the year 1792, all of the maps were recovered. The Minister of Finance, Luis López Ballesteros, purchased them from Agustín Blas. Francisco Xavier de Cabanes copies 6 documents and 22 maps (1829a and 1829b). From that moment on, the original documents go missing and Cabane's copy begins to be considered the only available copy of Pontero's initial project. Subsequent references to the original map are not only rare but often incorrect (S. G. E., 1974 y Capel, 1983) or inaccurate (Carreño, 2004).

4. The original documents were neither issued publicly nor had any impact on contemporary maps. We can conclude this as a result of verifying the aforementioned documents with Tomás López's maps.

5. The cartographic archives for geographical studies in the Geography Centre for the Spanish Army, conserves, albeit partially incomplete, the original map, drawn by the experts Briz and Simó, with the rivers Tagus and Guadiela between november and december 1755 (sign. Ar.E-T.10-C.única-4). This is the only original map, belonging to Pontero's river and waterways navigation plan, which has gotten to us. Its original title was *Curso Ydrographico y Corographico de los ríos Tajo y Guadiela que en obsequio del Rey Nuestro Señor D. Fernando VI y con direccion y a expensas del D.^r D.ⁿ Carlos de Simón Pontero de su Consejo y Alcalde de Casa y Corte Han delineado D.ⁿ Joseph Briz y D.ⁿ Pedro Simó y Gil. Año de 1755*. It contains priceless and detailed information, not only for researching Pontero's original project, but for researching the historical geography in the counties represented. Cabanes made a copy of this map and published it in 1829.

6. The Geography Centre for the Spanish Army also keeps another map (sign. Ar.E-T.10-C.única-2) which is the first copy of Briz and Simo's map called *Plan del Viage, ó reconocimiento que hicieron de los Rios Tajo, y Guadiela desde sus nacimientos hasta Talavéra; y del de Manzanares desde el Real Sitio del Pardo hasta el de Aranjuez, D. Joseph Briz, y Don Pedro Simó y Gil, Peritos nombrados por D. Carlos de Simón Pontero, en virtud de orden de S. M. con acuerdo del Sr. Conde de Valdeparaiso, su Ministro de Hacienda, para que pasasen á dho. reconocimiento á expensas de dho. Don Carlos, como lo hicieron. Este Plan fué aprobado por el Conde de Aranda, Comandante gral. del Cuerpo de Artilleria, y del de Ingenieros en el año de 1769*. This document was probably issued to support French architect Mansart de Sagonne's proposal for navigating the river Tagus. At that point, research and studies were carried out on the map, traces of which were still visible in the 19th century.