

Mental Projections of a City in War. The Perception of Burgos through its Military Cartography

A range of different wars that took place in Spain produced a complex development of knowledge's branches relatives to war, being the cartography one of the most important. Through the production of maps from different points of view of local and foreign troops, we can understand the evolution of technique skills as well as mentalities and concepts about the representation of a city developed in different countries but used in Spain. This last point should be understood from the perspective that a map made over a territory is an impartial mental projection, which reflects the most important or relevant for its creator, the mapmaker. Through the case of Burgos, one of the most important cities in the military defense of Spain in the 19th century, we find a variety of mental projections during the conflicts, something exceptional. The different versions of the same city allow us to know how they thought that the city was, according to particular interests.

Keywords: War, cartography, mental projection, Spain, mapmaker

Introduction

The increase in the successes of Napoleón Bonaparte over countries such as Russia, Prussia or Austria, provoked a continental block to his main obstacle: Great Britain. On one hand, he main operation of this movement was the invasion of Portugal, country that supported British Islands. On the another one, Spain, with Charles IV as king, had made an agreement with France in 1795, which was renovated in 1807, October, with Fontainebleau pact. Through this one, French troops could cross the country to Portugal. However, French Army put also in Spain some cantonments and multiplied the number of soldiers in essential points, as for example in Burgos. After the Aranjuez riot and Bayona abdications, Napoleón named king of Spain to his brother, Joseph (Ortiz Córdoba, 1992, 169-211). However, Spanish population showed its reluctance to the invasion as well as the change of king. The consequence was the start of the war, known as Independence War, developed between 1808 and 1814 and part of the named Napoleonic Wars that affected the whole Europe.

Burgos was an essential point in the connection between France and Madrid, so it made that the city was a key for French, Italian, English, Portuguese and Spanish troops. Napoleonic Army, which was then in the city before the conflict, rebuilt the castle, destroyed at the end of 18th century by a fire.

From these works of rebuilt and fortification, a collection of maps was made up, to value the progress of them as well as of to know the weak points in case of attack. Due to the absence of previous cartography, the maps product of War Independence can be considered as the the first precise cartography of the

city and its castle. Moreover, in this case the cartography is an exception because there are four different cartographies: French cartography, in which can be distinguished from two bodies, Military Geographers Engineers and the Corp du Génie; Spanish cartography, English cartography and Italian cartography. So, through different examples we can demonstrate the statement that despite of being the same city, each map maker is a world, a sight, an idea, a mental projection. Spectator can see only what map maker want spectator see. The result is an incomplete knowledge of reality and it is necessary to have different points of view, like these maps.

Literature Review

The Perception of Cartography

Some experts, such as Robinson (1952,1976) have considered that maps offer a neutral and impersonal information, but nothing so far from reality. Having been highlighted by Harley and Woodward (1987, 16), maps are “*graphic representations that facilitate a spatial understanding of things, concepts, conditions, processes or events in the human world*”. Following the same idea, Hansen (1995, 5) explained the concept of cartography as graphic information related to a part or general real spatial area. These studies contributed to a new interpretation of cartography, implying the analysis of context, production, techniques, interests or social conditions. Maps act as power watchers (Harley, 2005, 82), they rewrite the world on behalf of someone convenience. Pickles considers that the process of mapmaking is the creation of new objects, new perspectives (Pickles, 2004, 3).

From this point of view, geography, in this case the branch of cartography, as history, is only the recognition of what had happened or in other words, only the perception of the mapmaker and the passer-by of the moment. The selection of information in maps led by human will and choice, counterparts of reality, produces a fictional map, based on particular interests (Crampton and Krygier, 2005, 11-33).

In the same way, the analysis made from the present tries not only to study them but to understand the social and political context when they were made up. Nevertheless, the we take the risk of being wrong. The examination of a map is something subjective, and the valuation will depend on the point of view, thoughts, ideas and knowledge of the researcher. How could have we the same study from a historian than from a geographer? Although they are discipline very close, the results will be completely different. Even between two geographers, the responses will not be the same. This assumption serves for map makers. Each one is a world, a vision, a thought. Observers takes time to see what each map maker see of a city. Each person will hang his own associations with a city on a map and will write about a map as if the map

maker would think and see what people think and see of the city. But it does not the truth (Niemann, 2012).

A Problematic Query

Watchers must have always take into account that map makers create their own vision of reality; they show a mental projection that cheat the observer of the map. We could talk, then, about manipulation. Manipulation that comes from the rules acquired during an apprenticeship of map making, which vary in the countries.

As Faucault said:

What rules permit certain statements to be made; what rules order these statements; what rules permit us to identify some statements as true and others as false; what roles allow the construction of a map, model or classificatory system...(Philp, 1983, 29-52).

But, usually, this “manipulation”, is difficult to see. The logical explanation is the uncertainty to find views of the same city and made at the same time from different map makers (Gombrich, 1975, 119-149). Subsequently, spectator only obtains through this visual communication a model of reality, but not a complete at all (Arnheim, 1986, 194-202). To this problem can be added the fact that society look at a scientific result, so they reject the idea to analyse the ethic accuracy of each map only as a partial certainty.

Methodology

The example we have chosen as model of different mental projections is the castle of Burgos and its defensive system, which offers an example of constructions during the Independence War, buildings that had as goal to be places of retreat. In the mostly part of cases, citadels were built using a previous structure, such as castles or monasteries, at which a defence was joint. There are few exceptions of new buildings. However, due to the events of the war, none of these cases have survived complete excluding Burgos. The castle and its perimeter are one of the more impressive Napoleonic positions. Its excellent degree of conservation allows to observe different styles of fortification and the way in which troops used the previous structure to strengthen their works. The strongest point of this military heritage is the rests of the siege (Esdaile, 2009).

Nowadays, visitors can see the walls built then, and although there are parts hidden in the woods, others are visible due to their height, among 6 and 8 meters. Nonetheless, the main part of the fortress, the castle, did not have the

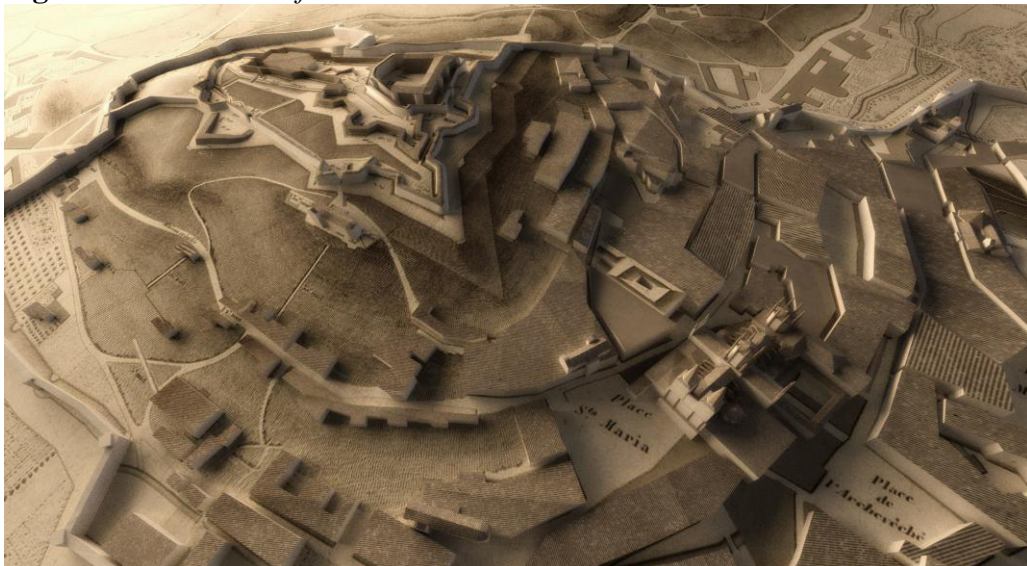
same luck. A reconstruction had been made some years ago, giving, as result, a castle with a triple line of bulwarks, of which the first part has as basis a medieval wall that surrounded the hill; and two levels more made with escarpments. A battery packed was erected in the highest part and the terraces were protected with palisades and obstacles. The whole complex, occupying two hills, Blanca and Saint Michael, had a width of 1.852 from North to South and 926 from East to West.

Figure 1. *East part of the castle at the present*



Source: Photography made by the author

Figure 2. *Recreation of Blanca hill*



Source: 3DUBU, recreation made by Mario Alaguero Rodríguez

Findings and Discussion

Maps made during the Spanish Independence War allow us to deconstruct the mental projection that each army had about a city. Spectator could appreciate that despite of using science to make a map, mind is more powerful than technique, and the reality is completely different if we look at a Spanish map than an English one. Only the interests of each army appear in the paper. The cases taken into account in this study were numerous, but we have selected only the most representative.

The first case is the French mental projection, from which we have chosen one map from each institution. Napoleon was the first person in recognising the importance of Burgos, from the territorial point of view as well as political, military and administrative place, when he passed by the city in 1808, November, and he gave orders to rebuild the castle destroyed during a fire in 1750, work that took place between the beginning of 1809 and the summer of 1812. The elevation of the hill over the city and the distance to the centre, only ten minutes walking, made the citadel as the perfect building to control the city. As it was normal, the troops informed over the steps made for the building of the new fortress and the proposal plans as well as then also made to make the fortifications of the city, resulting in a collection of maps of the Military Geographers Engineers and Corp du Génie.

Topographic and cartographic operations in Spain during French invasion were made, at the beginning, by the *Bureau Topographique de l'armée d'Espagne*, constituted in Bayona on February 1808, 27th 1808 (Berthaut, 1902, 177). In charge of it was Firmir Chabrier, Battalion chief and Section Chief. His team was completed with the captains Delahaye, Laignelot and Lerouge; the lieutenants Guibert and Defransure and the second lieutenants Darnaudin, Bayard and Berlier.

Its stay in the Peninsula focused on making up different maps, itineraries that linked point between Spain and Portugal as well as sieged cities. Moreover, due to the inaccuracy of documents in the French archives about Spain and Portugal, Chabrier ordered to take every paper that seemed useful in Spain: War and Marine Repository of Madrid, municipal archives of cities, university archives, the manorial ones, ecclesiastic ones, etc. Also, he asked for astronomical and trigonometric data to calculate. To accomplish the orders, Chabrier received a repetitive circle, an achromatic lens, four compasses, a chain of 20 meters, two declinators and two rules (Castañón y Puyo, 2008, pp.75-78). In Bayona he received the order to go to Burgos, where the troops were cantoned since October 1807. The reason was to prepare the existing cartographic material for the emperor and give it to his private cabinet, in charge of Bacler D'Alba. Chabrier took part of his team. During the trip they made itineraries from Bayona to Burgos and the cities and their environments. In the case of Burgos, the conditions were very hard because the population were unfriendly, as the letter sent on May 1808, 1st said "their officials have been attacked with stones by Spanish population"

Furthermore, during that period of time, Chabrier dedicated to look for maps on the archives, without success. For this reason, he sent Delahaye to Madrid, with the hope of finding cartographic documents about Burgos. Marshal Bessi res ordered to geographic engineers. At the end of May, Laignelot and Defransure arrived to Burgos. Marshal Bessi res ordered to engineers to make surveys, specifically about the defile of Pancorbo and a map at big scale of the castle of Burgos. On June, the *Bureau Topographique de la arm e d'Espagne* moved to there and Chabrier was in charge of the finding, where he found 180 little maps of fortresses and coast, accompanied by historical and military descriptions (Berthaut, 1902, p. 180), but did not about Burgos.

Once they have maps and surveys, Berlier was in charge of diminishing the map of Burgos and its environments from 1:10.000 to 1:20.000. At the end of July, the geographic engineers followed the retreat of troops from Madrid to Burgos, and after, Vitoria. Due to it, the proposed goals about the copy of maps were deferred. However, until the retreat to France, we have proofs of the works in Burgos. Previously, we have point out the existence of a map at scale 1:20.000 and its copy at 1:10.000, that it is the first of a collection of maps very similar, with little changes about the structures that they wanted to change or add. This first map made by Military Geographic Engineers served to know the structure of the city, its state and the situation of fortifications which they were making and to think how to defend them in case of attack by the Spanish, English and Portuguese troops.

The title, legend and explanation were included inside of the draw, specifically in the right bottom corner. In this part can be observed the title, in black ink, PLAN DE BURGOS et de ses environs, and the mapmakers *Fait par les officiers Ing nieurs G ographes de l'arm e d'Espagne, sous la Direction du chef A. Chabrier, Directeur du Bureau topographique* (see figure 3). Also, there is a description of Burgos, in which the role as metropolis was explained, its situation next to Arlanz n river, the number of inhabitants (10.000), its narrow streets, its houses, the lack of educational institutions, the abundance of religious buildings, its link with other parts of the country, etc. The legend contains an explanation of most important buildings from the point of view of strategy and cultural importance, although without naming the another fortress of Saint Michael.

The draw was made in black ink and a range of watercolours: Green for representing nature such as woods and orchards represented with points; blue for hydrography such as Arlanz n river or smaller streams as Pico, Gimeno and Vena; red for buildings and different tones of ochre for the relief. This one was represented through a pictorial representation, it means, only in a qualitative way but without quantitative information. For this reason, the technique was "hachures" or shadowing in which the terrain was considered under an oblique light and the traces were made with different thickness depending on the light received. The representation of the city has a great accuracy due to the scale. However, it did not offer information about the city. It can be appreciated

representative buildings from the point of view of culture and strategy such as the fortress of Saint Michael and a powder magazine, Huelgas convent destined to nobler women, close villages like Gamonal and Cardeñajimeno and the most important paths that linked with other places such as Madrid, Valladolid, Aranda, Bayona or Saint Andrews. The orography is very well represented, although they did not make altimetry works with the aim of knowing the height and to find the way to be defended in front of attacks.

On the other hand, the Engineers Corps had Charles Antoine Pinot as captain. Pinot was the person in charge of topographic works of the city and making the map to enhance and extend the city defences after the attacks at the end of 1812. Occasionally, cartographic works were not made only by Pinot, but also by Louis Ferdinand Dehon, who obtained the degree of Chef de Bataillon au Corps Royal du Génie.

His projects highlight, overall, because these projects served to rebuilt or improve fortifications. There are a lot of maps about the castle or the Saint Michael fortress, so it is easy to follow the conflict. Nevertheless, the map that catch de attention is the last one, because it is a mobile map, it means, there are parts that can be retired or added. This maps allows to see how were fortifications before 1812 and what French wanted to do at the end of that year.

The map Plan du fort et de la ville de Burgos relatif au projet d'extension et d'amélioration proposé pour ce poste was accompanied by a file in which modifications were explained (see figure 4). It is signed on January 1813, 10th, and consequently, after the siege made by Spanish, Portuguese and English troops between September and October, 1812. The damages due to the conflict made necessary to strengthen again the city defences and the fortresses. So, French army did not want to leave Burgos.

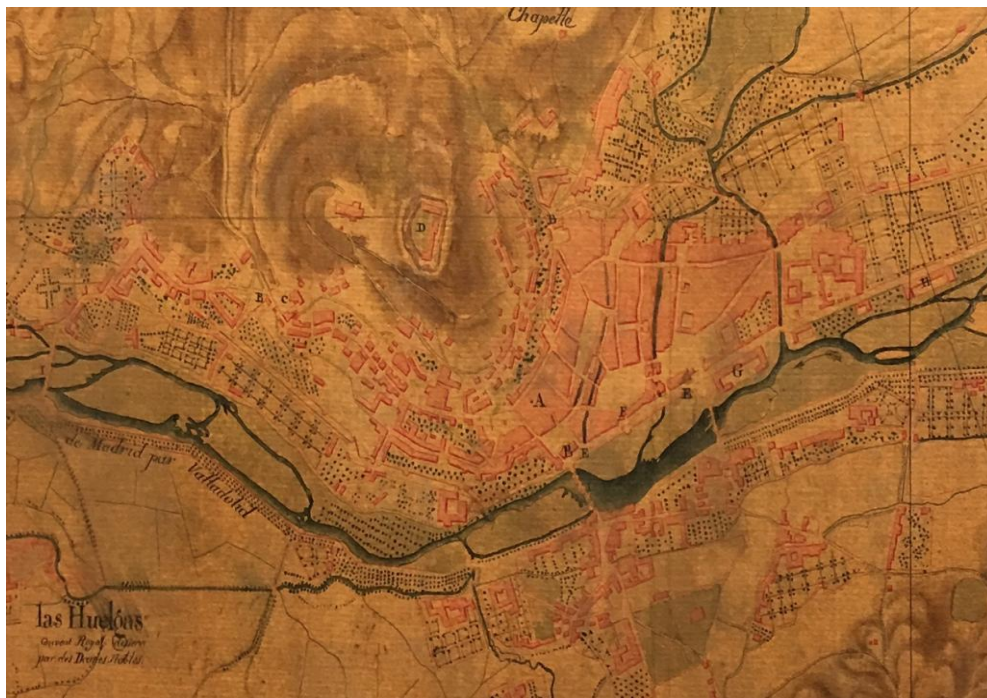
This map has a scale at 1:2,000, so it is a map of big measures. The main information appears at the bottom of the map, together with the title. The legend contains the most important buildings that acted as fortress and the ones that would be built. These buildings were divided in three groups: existing fortifications, enlarge proposal and modifications or added buildings to the existing ones.

To make possible these changes, the map contained different mobile parts, overall Blanca castle and the surrounded fortress, in yellow; despite its not very well conservation. However, the most important fact is that in that time, a very accurate map of the city and its surroundings was made. The style, following the previous dynamic, is very sumptuous, using black ink range of watercolours to highlight different elements: red public buildings considered as important (cathedral, Saint Dorothea, King House, Saint Stephan door, Saint Gil door, Saint Paul door, Barrantes door, Saint Marian door, door of four rounds and City Council door); blue for the ones with military importance, such as the arsenal, barracks of Frías, maintenance, barracks of chivalry, barracks of sappers, four rounds magazine, barracks of Valdés, Barrantes hospital, Victory church, barracks of Merced, barracks of Saint Nicholas, Charity Hospital, conception Hospital, Saint Luis stalls, Saint John hospital and barracks of Saint

Paul; grey for demolished structures such as Saint Augustine convent, Saint Francisco convent, Calatrava convent and Trinity Convent; or some parts of the Blanca fortress; yellow for the Blanca and Saint Michael fortress; light blue for the hydrography, green for nature and a variety of brown for relief, stronger as higher.

The internal configuration of the city appears very clear thanks to all appointed elements, such as the heights, as for example Saint Michael, Graco or Saint Dorothea; surroundings such as Saint Peter and Vega; others buildings Our Lady of Robulera and Cid's sarcophagus; squares such as Saint Marian, Archbishop, Main Square, King's Garden or Frías; bridges such as Saint Peter, Saint Marian or Saint Paul; roads such as Madrid, Vitoria, Frías, Villatoro, Saint Andrews or Valladolid. Also different streams appear, although only the most important, Arlanzón, is named.

Figure 3 Plan de Burgos et ses environs



Source: Service Historique de la Defense. Chateau de Vincennes. 1VM60. Histoire Militaire, campagnes et sièges, pièce n° 4

Figure 4. *Plan Du Fort Et De La Ville De Burgos Relatif Au Projet D'Extension Et D'Amélioration Proposé Pour Ce Poste*



Source: Service Historique de la Defense. Chateau de Vincennes. 1VM60. Histoire Militaire, campagnes et sièges, pièce n° 1

Thanks to the superiority of Napoleon over the most part of Europe and his imposed regime, his troops characterised by multiculturalism. For this reason, it is not bizarre to find traces of participation of countries like Italy in favour of France. Moreover, participation of Italian soldiers was not only under French flag, as Liguria, Toscana or Piamonte did, but the own Italian Kingdom sent to Spain and Portugal 30.000 men in two moments: 1808, between February and October, it means, at the beginning of the war; and August, 1811 (Cuenca Toribio, 2006, 76).

Among the responsibilities that these troops had, topography and cartography were two important domains. Therefore, between the maps made about cities of Iberian Peninsula, there is an Italian map published in 1823. This map is the result of a copy of works made during the Italian participation in the conflict. The *plano di Burgos in Castiglia relativo alle Campagne degli Italiani in Yspagna del cav. Vacani Mag. Nell. J.R. Corpo del Genio* was published in 1823 as part of a oeuvre of four parts under the title *Storia delle campagne e degli assedi del'italiani in Ispagna dal MDCCCVIII al MDCCCXIII corredata di piani e carte topografiche dedicata a sua alteza imperiale e reale L'Arciduca Giovanni d'Austria da Camillo Vacani maggiore nell'imperiale regio corpo del genio cavaliere della corona férrea e della legion d'onore*. Specifically, the plan of Burgos is in the last one, dedicated only to maps, and with the title *Atlante Topografico Militare per serviré alla storia delle campagne e degli assedj degl'italiani in Ispagna dal MDCCCVIII al MDCCCXIII ricavato da antichi documenti e da nuove ricognizioni eseguite nel corso della guerra da Camillo Vacani, maggiore nell'imperiale regio corpo del genio cavaliere della corona férrea e della legion d'onore*.

Through the title can be deduced that the reason to make the work was a present of Camino Vacani for the Archduke Juan de Austria. Vacani was born in Milano in 1784. He developed since he was very young a career as military writer and diplomatic, reason why he took part in Spanish Campaign as part of the French army and with the Austrian one in 1820. In this oeuvre, in which the map of Burgos is, was made from manuscripts found in archives and reports of Engineers and maps; and was one of the most relevant at that time because of its information about Spanish Independence War. It had three editions: the first one published in Milano in 1823, the second one in Florence in 1827 and the last one again in Milano in 1845. That year Valcani obtained the title of Baron of Forte Olivo. He died in 1862. (Galera I Monegal, Roca, Tarragó y Vila, 1982, 108).

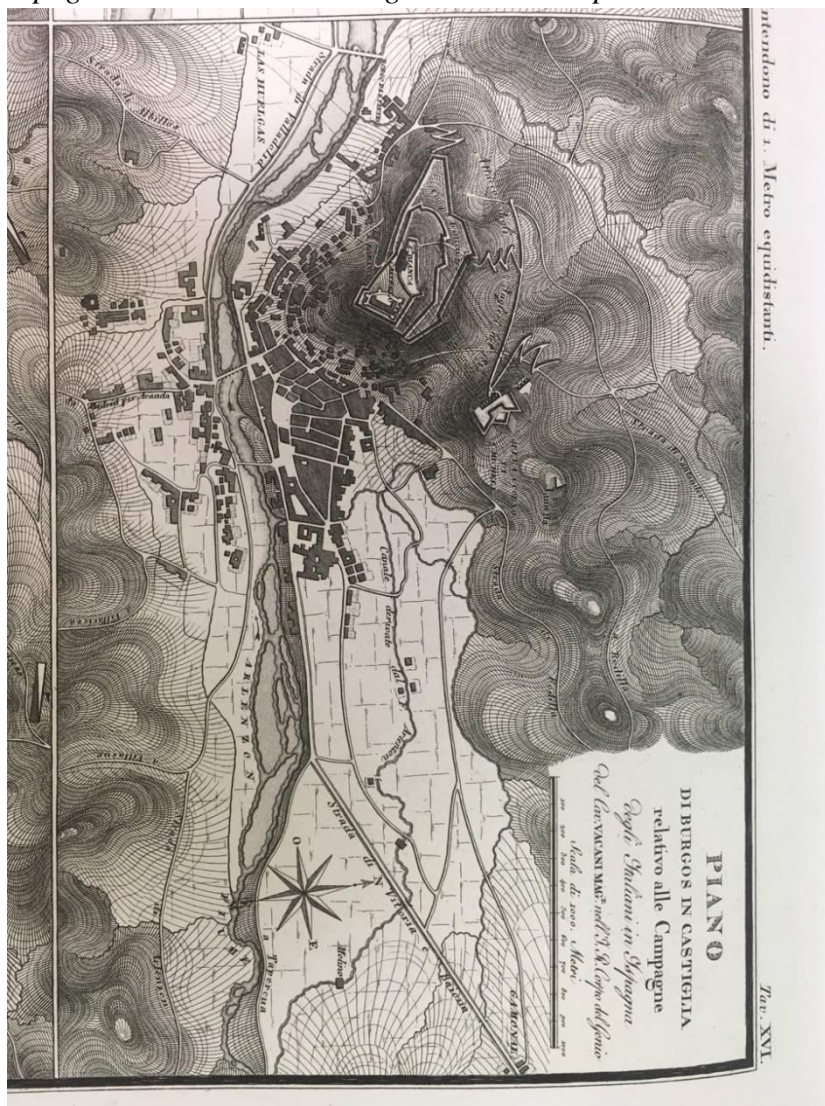
The map, made at a scale of 1: 10,000 in a paper of 49 x 37 cm, shared space with the maps of Lérida, Valencia and Castro Urdiales, being its real measure 7,5 x 6 cm. The set is surrounded by a frame, in whose top part appears *Le sezioni di livelli s'intendono di 1 metro equidistanti* and at the right *Tav. XVI*. At the bottom, the author there are different elements such as the author, the scale and the engraver: *C. Vacano disegnò, Le sezioni di livelli s'intendono di 1 metro equidistanti* and *L. Antonini incise*.

As it is an engraving, the image is in black and white. The geographic North appears with a compass rose. The information that offers is in a general level due to its size but it allows the observed to obtain an idea about Italian style of drawing. In first place, the altimetry catches the attention, mixing shaping and level curves. To this aspect adds the poor technique to represent the urban morphology, except Las Huelgas and Saint Peters' suburbs. Engineers focused overall on defensive elements such as the Blanca hill, in which appears Saint Roman church, the castle and its entrenched field; and

Saint Michael hill, where the English domination was pointed out in the map; the hornwork and the crescent structure.

Through this information, it can be deduced that the original map was made during or after the siege produced between September and October, 1812. In the same way, mapmakers drawn all sources of water, such as Arlanzón and others streams; and the roads to the city, which in military strategy were the most important point, as for example Madrid to Aranda, Villavieja, Villasua, Arlanzón to Tapercua, Vitoria to Bayona, Burgos to Gamonal, to Rodilla, to Santander and to Valladolid.

Figure 5. *Plano Di Burgos In Castiglia Relativo Alle Campagne Degli Italiani In Yspagna Del Cav. Vacani Mag. Nell. J.R. Corpo Del Genio*



Source: Biblioteca del Archivo General Militar de Madrid. Signatura GF-13

In contradiction to French cartography, Ally armies have few examples. In the case of English troops, there are only maps made during the last part of the war, it means, 1812 and 1813. The personal in charge of the maps was the *Corps of Royal Engineers*, corps with an origin in the 17th century although it was not until 1787 when it received the name of “real” by George III. This name included the distinction between engineers and sappers. Wellington recognised its importance and supported the creation of an Engineers School, which was created in Chatham in 1812 (Portel, 1889).

The first of the maps made in Burgos by the English army corresponded to the try of September 19th, 1812 to conquest the citadel, something that was impossible. By this time, and in the following months, there was a series of actions taken until October 21st, to invade this strong point.

The map “Attack of the castle of Burgos between the 19th Sept. and 21th October” is a result of this tries. This map has a scale in yards, that it is 1:4.752 meters. Both elements, title and scale, appear at bottom right. Just in the opposite side “See sections Fig. 2,3,4,5 and 6. Plate VIII” appears. Out of the frame, there is “London. Published April 1st 1814 by Tegerton. Military Library White Hall” and at the left Neele Sculp. 352 Strad.

The problem was that it is not the original cartography, but a sketch published by Thomas Egerton, seller and printer of Chancery Lane who published military books in different languages. His works included also the publication of important books such as those from Jane Austen. On the other hand, Josiah Neele was the engraver. He come from a family of cartographers, engravers and printers whose business had its place in Strand, London. The original map was part, possibly, of a collection that was engraved and printed during the Spanish Independence War because another map has been found with the title Plan of Ciudad Rodrigo, describing its Siege by the Allied Army 1812 General the Earl of Wellington Commander in Chief : By Permission of the Quarter Master General”. However, the original mapmaker is unknown. Later, the map of Burgos was included in the book *Maps and plans, showing the principal movements, battles and sieges, in which the British Army was engaged during the war from 1808 to 1814, in the Spanish Peninsula and the South of France*, published in 1840 by James Wyld (1812-1887), geographer of the queen and of the Duke of York. Wyld was apprentice and successor of William Faden (1749-1836) and had his workshop in 1823 in Charing Cross (Manso Porto, 2012, 223-224).

Figura 6. A sketch of the Fort of Burgos. Taken from the West side by an Officer of the Royal Engineers after it had been in part blown up: view of the city in 1813, showing the catedral in the distance

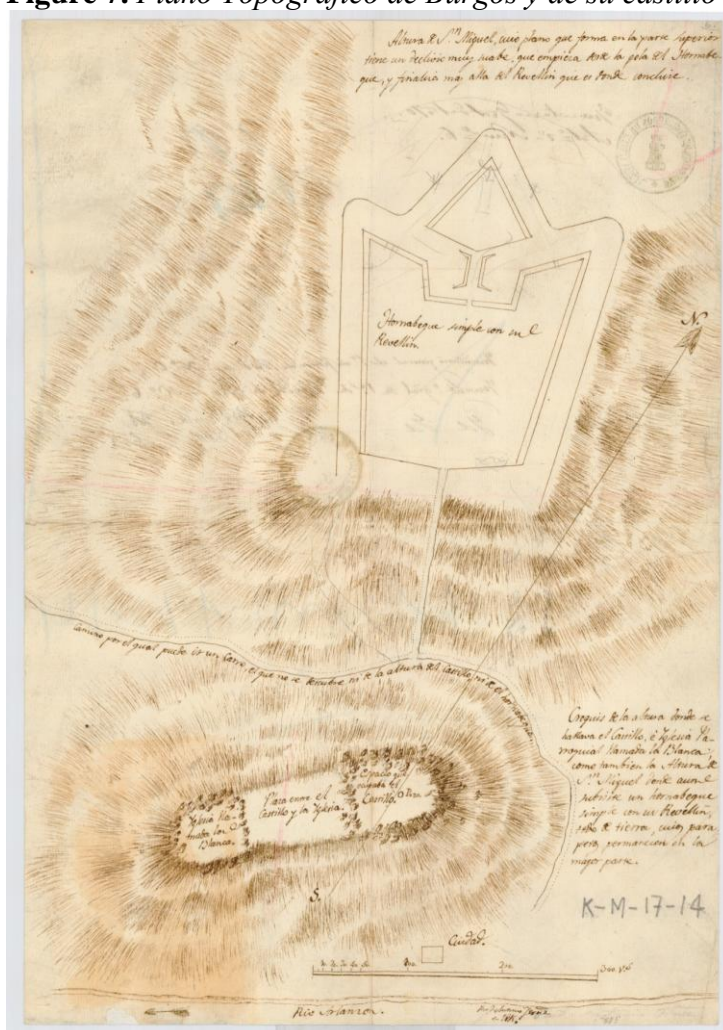


Source: National Archives, signatura War Office and predecessors: Maps and Plans. Subseries with WO 78-Spain. 78/1015

In the case of Spain, during the first quarter of 19th century, the Military Engineers Corps showed interest on the situation of Burgos and its castle and the possibility to strengthen the fortifications of the city. Nonetheless, until the end of the war they did not make cartography. The only map is *Altura de San Miguel*, cuyo plano que forma en la parte superior tiene un declive muy suave que empieza desde la pola del Hornabeque, y finaliza mas allá del Revellín que es donde concluye. It is a sketch made by Antonio de Jerez in 1815, just at the end of the conflict, and with a strange scale of 1:2.122. It contains a note *Croquis de la altura donde se hallaba el castillo e iglesia parroquia llamada la Blanca, como también la altura de San Miguel donde aún se descubre un hornabeque todo de tierra, ruin pero permanecen en la mayor parte.*

The sketch is very simple. it was made with feather, without watercolours, and with geographical elements such as Arlanzón river, Blanca church, a water well, path for carriages, covered path, the height of castle and stronghold with ravelin. The representation of relieve was with *hachures*, in a rough way, and stripes. Although there is not a report, from this map can be deduced that the goal was to know the state of fortifications after the war.

Figure 7. *Plano Topográfico de Burgos y de su castillo*



Source: Cartoteca del Archivo General Militar de Madrid, nº BU-04-05

Conclusions

There are evident technical and stylistic differences between the four armies implied in the fight for the possession of one of the most important cities in Spain during the war developed between 1808 and 1812. The accuracy and rich production of French cartographers, despite of the differences between the both institutions, are in the same wave. On the other hand, the Italian example, although without colour, is a little show of the Italian technique to represent urban morphology. Both cases are the opposite of representations from allied armies. The richness, not only in the watercolour use, but in the represented area, give us information about the cartographic advances in different countries. The breakthroughs made during 18th century in French military cartography thanks to Cassini's method were a reality during the wars that crossed over Europe, whereas Italian tradition came from a different view:

maritime and terrestrial cartography from 15th century. On the other hand, Spanish and English techniques were not the best in military terms. As can be observed in the article, the Spanish Independence War in Burgos was a crucial point to make cartography in Spain and it supposes a qualitative change despite the impossibility of finding previous cartography about Spanish cities.

But, apart from technical advances, the most important issue is that thanks to these range of representations about a city, the spectator can observe how different the armies from different countries thought. It is impressive to see how projections can change from one mind to another as consequence, not only the technique, but the ideology of the country or the perspective that one nation has of another. All the paintings are representing the same, in this case the city and the castle of Burgos, but the expressions are totally different.

Through these mental projections can be proved that map makers missed some part of reality, because at that moment it was not interesting because certain reasons. As Horowitz promulgated (Horowitz, Alexandra (20139. *On looking: eleven walks with expert eyes*, Scribner: New York):

“Right now, you are missing the vast majority of what is happening around you. You are missing the events unfolding in your body, in the distance, and right in front of you”

Finally, to sum up, the article wants observers remark the care when we observe reality, because it is also adapted to our conceptions of the world, we are the map makers of our own reality in the same way this range of maps show us. Sometimes, the existence of other mental projections supports the vision of, in this case, a city.

Acknowledgments

Our thanks to “Ministerio de Economía y Empresa” of Spanish Government for supporting this study and to the different archives for allowing us to use their material

References

- Arnheim, R. (1986). The perception of maps in Rudolf Arnheim, *New Essays on the Psychology of Art*, Berkley: University of California Press, 194-202
- Bicentenario de la Guerra de la Independencia. En Cervantes Virtual. http://www.cervantesvirtual.com/portales/bicentenario_guerra_independencia/
- Esdaile, C (2009): *The Castle at Burgos: a preliminary report*. <http://peninsularwar200.org/projects.html>
- Berthaut, H. M. A. (1902): *Les ingénieurs géographes militaires. 1624-1831*. Paris: Service Géographique, tomo I, 177

- Castañón, J.C. y Puyo, J. Y. (2008). "La cartografía realizada por el ejército napoleónico durante la Guerra de Independencia" en F. Quirós y J.C Castañón (dir): *Madrid 1808-Guerra y territorio-Mapas y planos 1808-1814*. Madrid: Edición del Museo de Historia, 67-108: 75-78
- Cuenca Toribio, J. M. (2006): *La Guerra de independencia: un conflicto decisivo* (1808-1814). Madrid: Ediciones Encuentro, 2º edición, 76
- Crampton, J. W and Krygier, J.(2005) "An introduction to critical cartography", *ACME: An International E-Journal for Critical Geographies* 4 (1): 11-33
- Galera I Monegal, M.; Roca, F.; Tarragó, S. and Vila, P. (1982): *Atlas de Barcelona*. Barcelona: Editorial La Gaya, 108
- Gombrich, E. (1975) Mirror and map: theories of pictorial representation, *Philosophical Transactions of the Royal Society of London*, Series B, Vol. 270, Biological Sciences, 119-149.
- Harley, J. B. Deconstructing the Map in Trevor J. Barnes and James S.Duncan *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, London: Routledge, 1992, 231-247
- (2005). *La Nueva Naturaleza de los Mapas* (México: Fondo de Cultura Económica, 82
- Niemann, Christoph (2012). *Abstract city*. Abrams Books.
- Ortiz Córdoba, A (1992): *Aldea, sitio, pueblo: Aranjuez 1750-1841*. Madrid: Doce Calles, 169-211.
- Philp, M. (1983). Foucault on power, *Political Theory*, 11 (1): 29-52.
- Pickles, J. (2004). *A History of Spaces: cartographic reason, mapping and the geocoded World*, New York: Routledge, 2004, 3
- Portel, W. (1889): *History of the Corps of Royal Engineers*. Londres: Longmans Green and co.
- Manso Porto, C. (2012): *Real Academia de la Historia. Selección de cartografía histórica (siglos XVI-XX)*. Madrid: Real Academia de la Historia, 223-224
- Niemann, C. (2012). *Abstract city*. Abrams Books.
- Robinson, F.J.G. (1952). *The look of the maps: an examination of cartographic design*, Madison_University of Wisconsin Press
- and Bart Petchenick, B. (1976). *The nature of Maps: Essays toward understanding Maps and Mapping*, Chicago: University of Chicago Press
- Woodward, D. (1987). *Art and cartography*. Chicago: University of Chicago Press.
- Descripción de los castillos de Pancorbo y Burgos. 1821. Caja 6.844. Sig. 3-4-6-3. Archivo General Militar de Madrid.
- Breves reflexiones sobre la necesidad y posibilidad de fortificar la ciudad de Burgos. 1823. Caja 6.844. Sig. 3-4-6-5. Archivo General Militar de Madrid.
- Service historique de la Défense, Vincennes, expediente GR 2 YE 3270.
- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Direction de Burgos. Memoire sur le fort de Burgos et le projet d'extension et las modifications que'exigent ses fortifications.. Corps Imèrial du Génie*. Enero de 1813. Places étrangères. Carton nº1. Pièce nº 1 dentro de pièce nº 12
- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Direction de BurgosEtat des ouvrages exécutés au fort de Bugos, apostillés de 'etat auquel ils se trouvent á l'epoque du 31 Juillet 1810*. Nº6. 31 de julio de 1810. Observations.

- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Dans cette situation, j'ai usé d'un dernier moyen. Napoléon. Ordre pour continuer les travaux.* N° 3. 9 de septembre de 1809.
- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Memoire Apostille des travaux du fort de Burgos depuis le 1° mai 1809.* N°5. 1 de mayo de 1809.
- La persona que firmó las apostillas fue Dehon, Jefe de Batallón de Ingenieros y Director de las fortificaciones. Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Direction de Burgos. Apostilles du Directeur des fortifications sur l'état des travaux du fort de Burgos a l'époque du 31 Juillet 1809.* N°4. 31 de julio de 1809.
- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Direction de Burgos. Etat des ouvrages exécutés au fort de Bugos, apostillés de 'etat auquel ils se trouvent á l'epoque de 31 Julliet 1809.* N°5. 31 de julio de 1809.
- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Direction de Burgos. Etat des ouvrages exécutés au fort de Bugos, apostillés de 'etat auquel ils se trouvent á l'epoque du 31 Julliet 1810.* N°6. 31 de julio de 1810.
- Service Historique de la Defense. Chateau de Vincennes. 1VM 60. Burgos. *Rapport General sur les travaux Executés pour établit le fort de Burgos conformément aux ordres de sa Majesté l'Empereur et Roi.* N°6. 16 de febrero de 1811