

JOURNAL



The Garrison Border Town of
Elvas
and its Fortifications

Fort of Graça

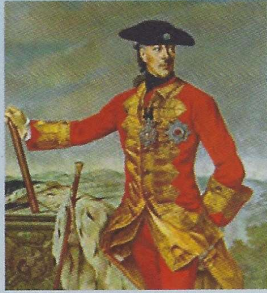


Text and concept: Domingos Buchó Photography and design: Raul Ladeira (VA) Translation: Connie Botelho-Cabral

Cover: Inner gate of the fort

WHY THE FORT WAS NEEDED

In the 17th century, a battery placed on that hill – where the chapel of Santa Maria da Graça was located – approximately 1060 metres from the city, did not threaten it, fulfilling only the tactical function of dominating the valley of the Ribeiro do Cêto. This was the role played by the redoubt that the Spanish built during the siege and Battle of the Lines of Elvas (1658/9), where they sited two heavy cannons, later serving as prison quarters. In the second half of the 18th century, the firing range of the artillery allowed it to reach the city effectively, favoured by the difference in altitude of around 59 metres between this hill (404 m) and the area of the castle (345 m). In 1729, Azevedo Fortes states, in *Engenheiro Português*, that the cannon could reach 1990 steps (that is, approximately 2774 m). It is understandable then that for Friedrich



Friedrich Wilhelm Ernst,
Count of Schaumburg Lippe (1724-1777)

Wilhelm Ernst (London, 1724 - Wölpinghausen, 1777), Count of Schaumburg-Lippe, nearly four decades later (1762), the need to build a fort that occupied that menacing prominence over the main stronghold of the country was obvious. Remember that Lippe was engaged as a commander and reformer of the army, along with a significant number of British officers, in connection with the Fantastic War or the War of the Pacte de Famille (1762) and as a result of the Pacte de Famille (Bourbon) of 1761, whose main target was English maritime dominance.

THE CONSTRAINING DIFFICULTIES

Constraint A – The fort would have to have a great defensive capacity, because if it were taken, it would present an enormous danger to the city.

Consequence A.1 – Its armament and its garrison, on war footing, would have to be considerable to fulfil its mission.

Consequence A.2 – So many pieces of artillery and so many men needed space, including living quarters, and consequent logistical support.

Constraint B – The space available for the construction of the fort is relatively limited, due to a steep slope and rocky outcrops, and it had a nearby rise (Malefa), towards NE, which allowed the enemy to approach without being seen from the fort.

Consequence B.1 – Optimising the area would have to give priority to the works of offensive and defensive architecture properly so-called, specifically an outwork that would make the defence as deep as possible in the direction of the NE.

Consequence B.2 – Due to lack of space, everything to do with logistics would have to be housed in a bombproof underground location, and would require a large cistern that would maintain the garrison for a considerable time.



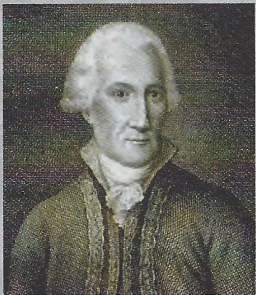
Aerial photograph (from N to S)



First ditch and the access to the inner gate

DESIGNERS AND PERIOD OF CONSTRUCTION

There is no doubt as to whom was responsible for the original project: it was Count Lippe himself. It is evident from the caption of the plan from 1762, designed by Luiz de Carvalho Gomes, to which is added the note: "under the command" of the then commander of the Portuguese army. The order to build the fort was entrusted to Lieutenant Colonel Engineer A. De Bassenond, in 1763, who oversaw military engineering under the orders of Lippe. At the time, the governor of the stronghold was Brigadier Robert Clerk. Engineer Étienne was assigned to direct the works, until his departure to Germany the following year, and he accompanied the Count to work on the completion of the Wilhelmstein Island Fort (County of Schaumburg-Lippe). It is interesting that this fort, built between 1761 and 1767, was also one of Friedrich's projects, featuring a governor's house on its top, as in the Fort of Santa Luzia and the one the Fort of Graça would later have, despite this not being envisaged in the original project. It seems to have been an innovation, as was the construction of the central redoubt, introduced by Étienne or by Valleré: military documents (1875) often refer to the latter as having been the one who "expanded the original project." Indeed, upon leaving the country in 1764 (returning, for a visit, in 1767/8), Lippe advised the Count of Oeiras to give the direction of the work to the then colonel of artillery Guillaume-Louis-Antoine de Valleré.

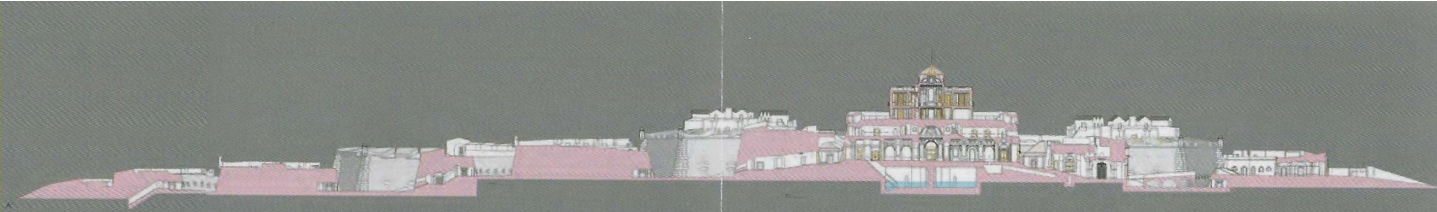


Colonel Guillaume de Valleré (1727-1796)

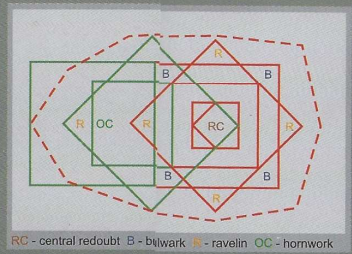


Governor's House

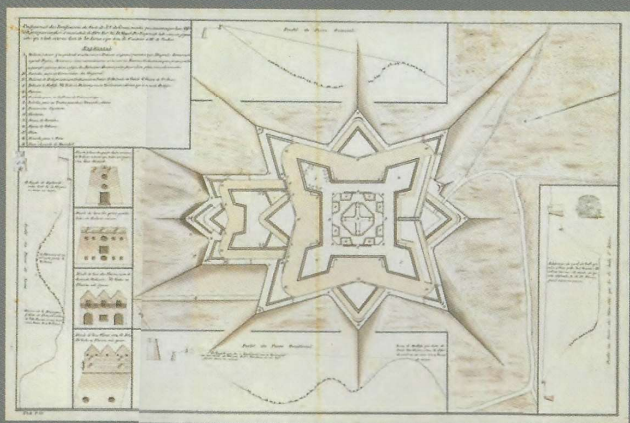
As for the date of the completion of the fort, historiography – and even military reports (1875) – often mention the year 1792, however, in a report of 1797, the Governor of the Stronghold, Lieutenant General Francisco Noronha, wrote: "I had judged, from the information I was given, that the Fort of Graça only needed platforms, earthworks and a few sundries, but I found it in ruins, with only the magistral galleries; work had not begun on some of the branches and on others the work instructions had not been understood (...)". Enormous sacrifices were demanded of the inhabitants of the whole region, to the detriment of agricultural work. In 1763 the 6000 men participated in the works. In a military document from 1875, it states that a total of 767,000\$000 réis was spent on the works.



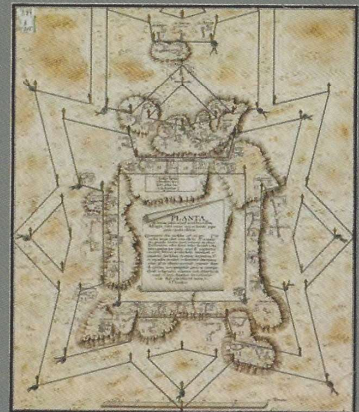
PLAN OF THE FORT SHOWING HOW IT WAS CONSTRUCTED



CURRENT PLAN



Configuration of the fortifications of the Fort of N. S. da Graça : [Elvas] (DSE 1618-1A-13-17)



Plan of the terrain where the Fort of Lippe was built (DSE/GAEM, drawing no. 1666, reference no. 1A/14/19 - CRT/2003, n. d.)



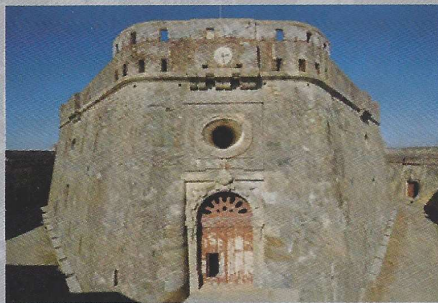
Plan of Fort of Lippe (1762) designed by Luiz Gomes de Carvalho, "under the command" of the Count of Schaumburg-Lippe (DSE/GAEM, drawing no. 1667, reference no. 1A/14/19 - CRT/2003, n. d.)

DESCRIPTION

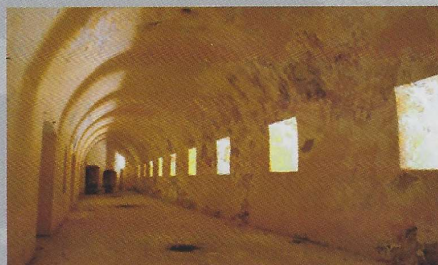
The main body of the fort is of a square plan, 145 m long on each side, having four angled bulwarks: Santo Amaro (SW), Malefa (NW), Badajoz or Estação (NE) and Cidade (SE). The respective curtains have, protecting them, four ravelins, Salvaterra (S) being the one which protects the inner gate of the fort and includes the outer gate, called Dragon Gate. On the E side, an entrenched place of arms, in the salient angle of the covered way, dominates the access road to this gate. The fortifications described involve the central redoubt, separated by a ditch, of a "square" plan with faceted vertices (irregular octagon) and pointed towards the curtains, allowing for improved resistance and easier circulation in the ditch. Under ground, this redoubt contains a



Aerial photograph (from S to N) (CME)



Central redoubt



Barrack in the underground of a bulwark

cistern with eight compartments; on the 1st floor, two enormous corridors that cross in the central circular space – cupola equipped with four elliptical tribunes – and various other spaces (with a hospital, in the beginning of the 19th century); the chapel was built in the 1950s in the S arm of this cross; on the 2nd floor, a corridor around the above mentioned cupola, giving access to radial compartments that in turn interconnect with others of smaller size (that housed officers and provided storage warehouses in 1875), featuring elliptical embrasures and slits facing the terrapleins of the curtains and of the bulwarks; on the 3rd floor, a terrace – with various defensive elements (parapets, slits, machicolations and walled embrasures) – on which stands the governor's house, comprising two more storeys and a terrace (6th floor) that surrounds the cupola of the main room on the 5th floor. Note also, in the ditch of the central redoubt, abutted to the gorges of the bulwarks, there are various facilities with multiple functions at the time of the prison, but that were originally powder-magazines. Under the terraplein of the S curtain we find, on the right side of the corridor, two

round overlapping and vaulted rooms, with an enormous central column. The upper floor, with fireplace, served as guard-house. Curiously enough, the location of small barracks for officers over the embrasures of the bulwarks (as mentioned in the description of the journey of the Prince of Waldeck, in 1798, and in the 1827 plan). As for the dormitories (that also served as a prison), they occupied the slitted tunnels that run through the curtains, faces and flanks of the bulwarks, equipped with a fireplace, which is accessed by the underground corridors of the capital lines; the tunnels of the counterscarp of the first ditch could also be used to the same end. Completing the description, the N area has a hornwork (or hornveque) with a retrenchment, a ravelin and the entire ensemble is surrounded by a ditch, counterscarp with counterguards and covered way bordered by pits or mantraps in various places, but above all where they were dug to defend the N area which also features countermines in the capital lines. The glacis was modelled in order to present ridge lines in prolonging the capital lines of all salient angles, with clear defensive intentions against approaches and hiding various postern gates.



Dragon Gate (decorative detail)

UNIQUE FEATURES

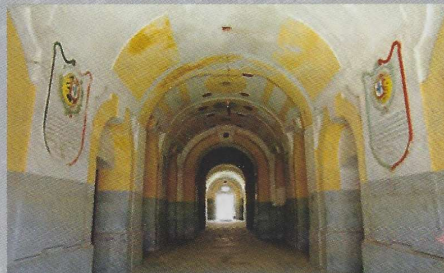
“The Fort continues to be a masterpiece of fortification, incorporating all the skill and art available at the time (...)”

Baron von Wiederhold in the description of the journey of Christian, Prince of Waldeck in 1798.

The masterpiece is manifested in the way of how the strong constraints at the start – lack of space, the presence of rocky outcrops, the need to accommodate a large number of men, their arms and respective logistics – were resolved:

- A remarkable regularity in design was achieved on the plan, which improved defensive capacity.
- Also notable is the rationality in the ordering of the functions to the corresponding spaces making use of the underground works.
- A remarkable capacity for active defence was achieved - with ingenious and sophisticated internal defence – making use of the glacis's own shape, surrounding it at an average elevation of approximately 347 metres.
- If the steep slope imposes a problem for those who defend it (due to the difficulty/impossibility of firing artillery at negative angles), it presents an even bigger difficulty for those who attack it because, upon climbing the slope, one cannot even see the fort nor notice the damage that they may be causing with the batteries on their approaches.
- Masonry of high quality, of great thickness, that uses almost only tunnel vaulting, ashlar used in sensitive points of the construction, make the Fort of Graça a masterpiece also in respect of the choice of building materials.

The choice, in terms of the geometry of the fronts, by the 2nd French, or Pagan's System or 1st Vauban System - although we must stress, this system had already featured in the construction of the Fort of Santa Luzia – with obtuse flanked angles, rasant defence line, without second flanks, is also evidence of practical rationality: all other systems suffered serious setbacks due to lack of available space.



Central redoubt passage

GOVERNMENT, GARRISON, WEAPONS AND WARTIME EVENTS

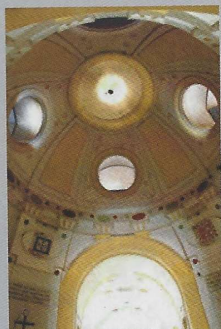
By Decree of 27 September 1805, a special governor was appointed, distinct from the governor of the Stronghold, with the rank of Colonel. In 1856 a “prison company” was created, to be replaced 38 years later by a “disciplinary depôt”, which operated until 1 July 1989, the date on which the fort was decommissioned.

On a war footing, its garrison consisted (in 1874) of 1792 men: 1120 infantry, including 30 officers and 16 junior staff members; 498 artillery, including 15 officers and 6 buglers; 104 engineers, including 2 officers and 2 buglers; 70 warehousemen, nurses and store guards. Defensive armaments included 136 pieces of artillery and 12 mortars, of which smooth-barrelled arms totalled forty-two 7-calibre, eighteen 9-calibre, fourteen 10-calibre, thirty-eight 11-calibre and four 15-calibre. Grooved-barrelled arms numbered thirteen 12-calibre and eight 15-calibre, as well as the 12 mortars.

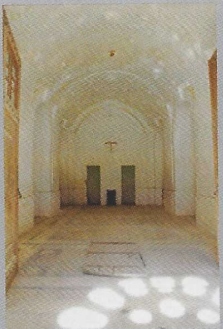
Main wartime event: during the Peninsular War (1807-1811) in the year of 1808, General Loison entered Elvas after capturing Évora; following the occupation, the French troops were concentrated at the Fort of Graça, undergoing an attack by the Spanish army, and later expulsion by the Anglo-Portuguese army to Lisbon.



The hill and the fort from the S side



Vaulted ceiling over the intersecting corridors of the central redoubt



Chapel in the central redoubt



Governor's House; vaulted ceiling of the room on the second floor

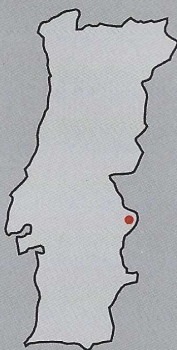



Guard-house in the passageway of the main gate


Tickets:
 Guided visits: 8€
 Free visit: 5€

Summer (May to September)	Winter (October to April)
10 am - 6 pm	10 am - 5 pm
Last entry 5.30 pm	Last entry 4.30 pm
Visiting time:	Visiting time:
Morning: 10.30 am - 11.00 am	Morning: 10.30 am - 11 pm
Afternoon: 3 pm - 4 pm	Afternoon: 2.30 pm - 3 pm

In English only with prior appointment.
 Closed Monday
 Contacts: 268 625 228 • E-mail: fgbilheteira@gmail.com

United Nations
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**The Garrison Border Town
 of Elvas and its Fortifications**
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