

THE MOORISH BATHS, GIBRALTAR.

Señor Don Leopoldo Torres Balbas, the well known Architect of the Alhambra at Granada, was recently invited by the Government of Gibraltar to pay a short visit to this city with a view to examining the Moorish Baths, which exist beneath the building now used as the Gibraltar Museum, and investigating the possibilities of restoring them as far as possible.

Señor Torres Balbas accordingly came and carried out an examination of the Baths, and as a result prepared a report, a copy of a translation of which has very kindly been transmitted to the Gibraltar Society by the Colonial Secretary.

Such a report from a recognised authority on Moorish architecture is naturally of exceptional interest, and the Society is exceedingly fortunate in being able to publish this report below.

It is understood that the recommendations contained in the report are being closely studied by the Colonial Government of Gibraltar.

THE MOORISH BATHS AT GIBRALTAR.

Notes for their Restoration

by Sr. Don Leopoldo Torres Balbas, Architect of the Alhambra de Granada.

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In the year 1160 Abdelmumen, emir of the mussulmans, ordered the construction of a city in the Djebel-Fath, surrounded by walls (*Rowd el-Kartas, Kitab El-Isticca, Ibn El-Athir*). He resided in this place for several months and ordered many palaces to be built (*Merrakechi*). This is how Gibraltar came to be.

This town was invested by King Ferdinand IV in 1308-1310, and after the walls had been demolished by the engines of war the moors had to capitulate; the King then ordered the reconstruction of the ruins and of a tower on the slope of the town, and also an arsenal to be constructed between the town and the sea. (Chronicle of Ferdinand IV).

In 1333 the Mahomedans again took possession of Gibraltar, after a siege of six months by Prince Abu Malic, son of the marinide Abul Hasan, who carried away as a trophy a large bell which was hung in the centre of the mosque El Qarouiyn of Fez (*Ali El-Djaznai*). Abul Hasan ordered the erection of a great tower on the top of the castle in the place where there had been a small tower, (without doubt that one which had been constructed a few years earlier by the Castilians) which had been destroyed by shots fired by the stone mortars. He also ordered the construction of an arsenal and workshops and built a wall surrounding the red hill commencing at the arsenal and ending at the file works. Later, Abu Inan restored the fortifications, building a wall as far as the extreme end of the rock. The interest that this King took in all matters affecting Gibraltar was so great that in the Audience Hall in his Palace in Fez he had a plan which shewed the walls, towers, castles, gates, arsenal, mosque, ammunition stores, granaries, the shape of the rock and that of the neighbouring red hill.

(*Travels of Ibn Batuta, Maggari*).

The "nasride" Yusuf III, Abul Hachach, of Granada, took Gibraltar in 1410. In 1462 it was conquered by the Duke of Medina Sidonia for Henry IV of Castille.

Historic data asserts therefore that the tower which exists to this day, in the high level of the city, called the Moorish Castle, was constructed by Abul Hasan after his conquest in 1333. An archæological analysis proves this historic testimony. In the eventful history of Gibraltar, the name of this tower which in the 16th century was known as "La Carrahola" has been forgotten or lost. It would be a praiseworthy act of historical restitution to give back this name to it. At a lower level, another tower was called "La Gurilanda"; there were also fortifications known as "La Coracha" and "El Miradero" (look-out). (*Castles and Fortifications of the Kingdom*, by Julian Paz. *Dialogue between Pedro Barrantos Maldonado* in which he gives an *Account of the Plunder of Gibraltar by the Turks in the year 1540*).

The other edifice left in Gibraltar of the Arab epoch the bath—called hammam by the mussulmans—must be contemporary with the "Carrahola," and of the buildings made by Abul Hasan and Abu Inan in the 14th century, for, although the cited texts do not refer specially to it, it is logical to suppose that so necessary an edifice to the mussulmans must have been built at the same time as the numerous other constructions carried out by those Kings. The capitals, with the exception of three which had been obtained from previous buildings—one roman and the other two visigothic—are, although plain, of the typical form of those from Granada, of the 14th century. The dome supported by squinches in the columned room as well as the arches show that they were of an advanced period in the andalusian mussulman art. Such public baths, of which there are numerous remains in the cities of the south of Spain, viz., Cordoba, Jerez, Ronda; Jaen, Granada, Murcia, &c., bear always a marked similarity in design, derived from the roman thermæ, or better still from the private baths of villas. As regards distribution and plan the bath more similar to this one in Gibraltar is one of the oldest in Fez, published by Ricard.* In both of them there is a chamber covered by a vault carried on squinches with alcoves at the ends—on pillars in the one at Fez and on columns in that of Gibraltar—between two other oblong chambers covered with barrel vaults. They are also very similar to the baths of Sidi Bu-Medina, near Tlemcen (14th century), and that of Valencia. They are all composed of three fundamental rooms; the first chamber of normal temperature in which the bathers must have undressed, an intermediate room temperate and a last one at a very high temperature with one of various plunge-baths which had usually alcoves in the ends separated by arches and columns. Under this last chamber there was a not very high cavity—the roman hypocaust—the floor of the chamber being carried on brick piers. A large copper which usually projected from one of the walls of the last chamber was used for heating the same for the supply of hot water for the plunge-bath and the hot air which circulated in the hypocaust. On the other side of the copper were the attendants' rooms the boiler-house, lumber room, &c., with an independent entrance from the street. There was a vestibule or lobby to the first chamber; at times there was an intermediate patio between the street and the rooms. Some rooms, the use of which is not well defined, must have been used as linen-rooms, stores, caretakers' lodges, &c. This distribution admitted of certain variations, enhanced in the important baths by the addition of more rooms and reduced in the less important ones. The centre of the plan is in practically every case a room with columns and central dome with an encircling passage in some cases and end alcoves in others. In several baths, amongst them the more elaborate and better known of Granada, this room is the intermediate one, that is to say the temperate one (1), in others more rare, the first is the cold one (2). Such chambers are

(1) Baths of the Royal Household of the Alhambra, Small Baths of Granada, Baths known as House of the Tombs and of the Albacin, in the same town; Baths of Fez, published by Ricard; Baths of Ronda and of Tlemcen.

(2) Baths of Sidi Bu-Medina, near Tlemcen; Baths of Uxda (Morocco) and of the palace of the Bard (Tunis).

analogous to the *frigidarium*, the *tepidarium* and to the *calderium* and *laconicum* of the Roman thermæ. The domed room has been compared to the *apodyterium*, but the fact that it almost always occupies an intermediate position as aforesaid makes this comparison unlikely. It is undoubtedly the more ample and important room, and that is why it is presumed that it was utilised as a resting room after the bath. All these accessory rooms were vaulted and were lighted by lanterns always star-shaped with glazed ceramic mouldings and glass panes. In the bath at Gibraltar the central room (III) whereby you gain access is preserved; also two other rooms to the east (IV and V) and another to the west (II), which has been converted into a garage, the end ones being covered by barrel vaults. In the V the floor and the lead piping to a plunge-bath are preserved, as well as the circular skylights, which must have been originally star-shaped, as those in the alcoves in room III; room IV has had its height reduced by a wooden floor—the entrance to the Museum over which there is a barrel vault that is certainly not the original one judging by its height, greater than those of the adjoining rooms. We cannot determine with any degree of certainty which was the entrance to this bath. In all probability room V was the hottest, because in it the bath was situated, and the door L, to-day blocked up, was probably the position of the boiler. In this case there must have been after the central warm room III two hotter rooms, the first for the vapour or sweating bath, the second (V) with the plunge for the hot water bath. The entrance must have been therefore by the rooms I and II. But this surmise seems to conflict with the presence in the alcoves of the central room III of the small vaults of a hypocaust; whereas in the IV and V notwithstanding that they have been partly excavated, there are no signs of its presence. It is easy to clear this up by excavating the floor of Garage II until the primitive floor is reached then go further down and look for the hypocaust, and if it exists this then must have been the hottest room and the entrance would have been by No. V; if not found there, an excavation in the centre of rooms IV. and V. should disclose that hypocaust.

REPARATION SCHEME.

The best plan would be to pull down the premises built over the baths, where the Museum is, and restore the lighting of the rooms by their original skylights, blocking up the openings to the street which are of a modern period. But bearing in mind the unfeasibility of this, electric bulbs could be installed at the skylights, providing these with opal glass, but leaving some means of ventilation into the open air, as will be explained hereafter.

It would also be convenient to pull down the arch that divides the vault in room III, and insert a compound girder composed of three steel joists, size 18 joined up by bolts and nuts, to carry the walls above; but this work is not considered urgent as the said dome is undoubtedly modern and must have been constructed when the rooms now occupied by the museum were built, the primitive one must have been made in panels and must have surmounted the others. In the following paragraph we state seriatim the works that we consider expedient to carry out in each room so as to leave these baths in the state demanded by the respect which is due to this interesting work of the past and with a view to afford facilities for tourists visiting them.

Room I, to-day a Garage. It is through this room that admittance should be given to the baths. The floor should be excavated until the original floor is found, or if this has not been preserved, until it is brought down to the future level of room II. The entrance door should be reduced in size by building a brick arch 1'10 metres wide, and a flight of steps leading down (as shewn in the plan) which will give access to the baths. The walls should be stripped of all plaster and whitewashed and the brickwork that blocks up door C should be removed. Beside the street door, making use of the large void which is to-day used as the entrance to the garage, a window could be left to ensure the admission of light into this first room.

Room II. to-day a Garage. The floor should be excavated until the old one is arrived at and if the latter cannot be found, until the level of the central portion of room III. is reached (the central portion should also be excavated, as already stated, to find out whether there is a hypocaust underneath). The walls and vaults should be stripped of all plaster and whitewashed. A window can be left facing the street where the door E is, building up the rest of the opening. Finally, the brick or stone wall that blocks up door D should be removed to communicate rooms II. and III.

Room III. present entrance to the Baths. The alcove on the south has retained its primitive floor level and this should be restored in the opposite alcove. The floor line of the central part under the vault was evidently 20 centimetres lower than that of the alcoves, as is clearly shewn by the marks on the walls. The arches of the southern alcoves which have been destroyed may be reconstructed by inserting a stone or marble column with shaft and capital similar to the existing ones. In the door F, actually the entrance, a window may be left and the rest bricked up. All walls and vaults should also be stripped.

Room IV. under the entrance to the Museum. Door H which is a modern one should be built up. This room had something like two alcoves at the ends, with floors slightly higher than the rest. Signs of them remain at A and B—which should be preserved at all costs. The floor of the central part of the room may be kept at the same level as that of room III. At M. there was an earthen jar fragments of which are still preserved in room V; it would be convenient to reconstruct it, sticking the pieces together, and replacing it in its former position. The walls should be stripped.

Room V. Door M should be built up, as it is a modern one. The floor of the plunge should be left intact, and the floor of the rest of the room paved on a level with the portion of the floor next to the plunge. The window J may be allowed to remain for lighting purposes. An excavation could be tried from the door L, at present blocked up, to discover the accessory buildings on that side. By K this is not possible because there is an underground tank. The walls and vaults should be stripped of plaster and limewashed.

The floors should be paved with thin bricks, known in Andalusia as "rasilla," but the old pavings should not be touched, but completed.
