# EUROPE SPOTLIGHT ON... GIBRALTAR

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Darren studied Building Studies at Lancashire Polytechnic and has since gained experience at Architects RJE Associates (UK), Sharrock Shand (Gibraltar) and GC Architects (Gibraltar).

### **GIBRALTAR.**

The Gibraltar name is taken from the Arabic meaning - abal (mountain of) – Tariq (general Tariq), which is a British Overseas Territory and headland, on Spain's south coast. It is dominated by the Rock of Gibraltar, a 426m-high limestone ridge. First settled by the Moors in the Middle Ages and later ruled by Spain, the outpost was ceded to the British in 1713.

Layers of fortifications include the remains of a 14th-century Moorish Castle and the 18th century Great Siege Tunnels, which were expanded in WW2.

The country is self-governing and its former link in modern history with the armed forces, which dominated its economy since 1704, is now replaced by gaming companies, tourism, banking and VAT free shopping. As well as the Macaque apes that roam the upper rock.



Darren Vickers ACIAT



Gibraltar

Editorial Note:

In order to avoid repetition, where the reference to a "Technologist" is used it also includes the Technician role.

### **GIBRALTAR'S ARCHITECTURE.**

With the historical link to the armed forces and the lime stone rock, there is a military feel to the older parts of Gibraltar, with fortifications, defences, walls, *bastions*, *gun batteries, magazines* and *tunnels* deep within the rock.

Many have disappeared into Gibraltar's past, integrated or underneath precast ugly 1900's construction. Others now being enhanced as tourist attractions and features.

Its classic features include courtyards, narrow streets, numerous steps & alleys, render facades, Genoese timber shutters, timber sash window, light wells, asbestos roofs, lime stone walling, random rubble walls and colourful Mediterranean painted facades.

The one feature common was the Genoese shutter – a typical timber shutter originating in northern Italy. This louvred shutter was highly efficient in keeping out the sun and maintaining an even temperature within. It also has a practical "spy panel" in the lower half that provides shade, increases airflow and ensures privacy from adjacent neighbours.



A typical facade with Genoese shutters..



A Macaque taking lunch..usually someone else's!

### DO ARCHITECTURAL TECHNOLOGISTS EXIST IN GIBRALTAR?

Gibraltar governs its own affairs, though some powers, such as defence and foreign relations, remain the responsibility of the British government. But it runs under many UK & EU laws and regulations.

We therefore work to UK building regulations, although we have our own set of Building Rules 2017 Parts A – P. Architects, Technicians, Quantity Surveyors, Structural & M&E Engineers are all trained in the UK. So it is relatively simple to move here and start working for any practice as a technician or technologist.

I think less is known about the difference between technicians and technologists. There are only a handful here, with mainly UK and Spanish architects.

The Building Rules are a variation to the Building regulations with local specific regulations.

The majority of historic buildings are protected by listed status, such as Fortifications, Defences, walls, batteries, military buildings, caves, upper rock monuments, antiquities and gardens. As well as category B for churches and colonial buildings. But as yet, there has been little enthusiasm to protect specific properties of historic significance.

### HOW DOES AN AT QUALIFY IN GIBRALTAR?

For the reasons stated above, Technologists qualify as they would do in the UK.

### WHAT ARE THE BIGGEST CHALLENGES BEING A TECHNOLOGIST IN GIBRALTAR?

There are numerous issues when designing and constructing in Gibraltar.

- 1. Nature of the rock and slope of the town, causes difficulties addressing Part M for disabled / wheelchair access. Some ramps are impossible to install, with some requiring Building Control relaxation of the rules.
- Progressive collapse regulations limit some old town properties, due to the random rubble nature of old construction. Many refurbishments with additional floors added, now requires full vertical & horizontal ties taken to foundation level.
- 3. Some upper rock properties require measures to avoid damage from apes. They can chip away at cables and pipes for hours on end, until damaged and broken.
- 4. Due to proximity of MOD airport, construction close to the runway is limited in height.
- 5. Customs and border control can restrict deliveries with materials in, in particular concrete deliveries.
- 6. Spanish doors do not meet UK testing regulations.
- 7. Steelwork, bricks and blocks sized differently.
- Plasterboard from UK differs in specification if having to order through Spanish companies (i.e. made for EU markets ). An acoustic plasterboard, for example, required to meet UK regulations, may not be available from our Spanish suppliers with their EU range of products
- 9. Some historic buildings in lime stone buildings are poorly maintained, damp, wet, and repaired with cement, not Lime mortar. Water ingress can be extensive with 1m thick walls taking 10 years to dry out.
- Construction methods sometimes have to suit the contractor and experience of work force. More traditional masonry / concrete construction sometimes preferred to modern Light Gauge Steel Frame (LGSF) techniques. Due to lack of knowledge and depth of local expertise.

### WHAT IS CURRENT STATE OF CONSTRUCTION IN GIBRALTAR

Whilst the UK and much of Europe fell into a recession after 2007/08 with the Lehman brothers collapse and subprime mortgage lending markets, this economic down turn around the world seemed to have little effect on Gibraltar. With the strength of the tourism sector, gambling / gaming industry, as well as VAT free shopping, construction was not affected.

The construction sector has gone from strength to strength, partly funded by Government investment in affordable housing, re development of public buildings and beautification schemes. Along with investment from the private sector, in residential, office and commercial properties.

Current projects include high rise residential developments, hotels, many developed on reclaimed land around Marina Bay and Queensway Quay. Euro city, Ocean Spa Plaza and mid-town are all developments well under way.

Due to limited space and higher demand for 2+ cars per household, car parks are also on the agenda, Such as Grand Parade car park and smaller site specific ones for residential areas.

More affordable housing schemes are also in the pipeline, with under developed areas such as eastern beach (east side of the Rock ) under review for development.

A new sports stadium is under construction on the southern end of Gibraltar at Lathbury barracks, catering for athletes, squash courts and an Olympic pool, with a general purpose sports field.

The Government is currently undergoing a campaign pledge to build new schools across the board, with 8 schools being demolished or refurbished. The main development being 2 large secondary schools ( Bay Side and West Side) separate boys and girls schools coming together on one site, as 2 mixed comprehensive schools ).



New Comprehensive schools project.



Royal Navy Hospital. Refurbished into elderly care and mental health facilities.

Gibraltar has gone through various phases in recent years. We had the influx of gaming companies, all requiring more and more office space. Which therefore led to numerous properties, especially in the town centre, being refurbished (and change of use) from residential to offices.

But with Brexit looming (and the Spanish government still demanding Gibraltar be handed back) lots of cross border workers are returning to Gibraltar to live. The demand for residential properties outstrips supply, so we have increased rents and property prices.

Therefore many developers are building residential apartment blocks with some of the same office conversions returning to residential space.

We are less affected by climate conditions, although some windy days have caused scaffolding to collapse (luckily, no loss of life). But construction is a 50 week a year nonstop process. Apart from the obligatory 2 weeks for seasonal holidays.

### **GENERAL CONSTRUCTION TYPES**

We have to deal with odd construction methods and features specific to Gibraltar, such as:

- random rubble walls
- asbestos roofs
- rock tunnels
- redundant basement cisterns for water supplies,
- decaying cement/sand render facades,
- salt water tanks for toilet flushing (and the reason why never use copper pipes),
- terracotta pot & plank floors,
- high gradient ramps for prams and wheelchairs,
- air humidity with high salt concentration levels causing rusting
- building over reclaimed land and war ammunitions below ground.

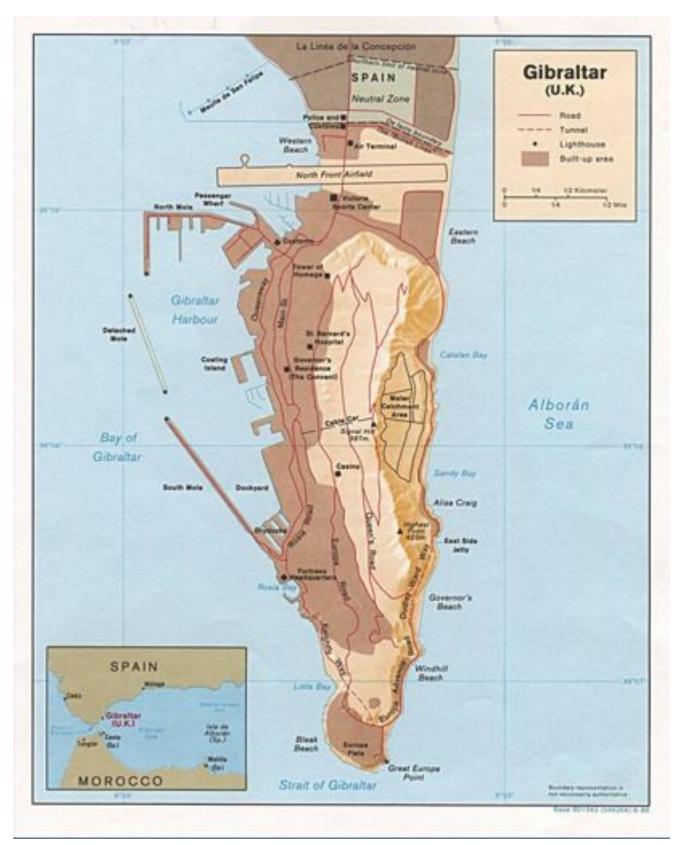


Typical random rubble wall.

New modern steel or concrete methods of construction are very similar to the UK and Europe. With cavity construction, single skin blockwork with insulated EPS systems and metal / timber decks. Some external clad systems have been used on various projects though luckily none affected by the Grenfell tower disaster. Traditional masonry methods tend to be used where local trained expertise from Spain and Portugal, are to hand.

## WHERE COULD MEMBERS FIND OUT ABOUT GIBRALTAR AND IT'S CONSTRUCTION INDUSTRY

www.gibraltar.gov.gi
https://gibraltarheritagetrust.org.gi/knowledge/upcoming-projects
https://issuu.com/buildgibraltar/docs/build-gibraltar-web
https://issuu.com/thegibraltarmagazine/docs/the\_gibraltar\_magazine\_march\_2017
http://www.buildgibraltar.com/
http://thegibraltarmagazine.com/category/business/
http://www.insightgibraltar.com/
www.visitgibraltar.gi
www.gcarchitects.gi



Map of Gibraltar (Map down loaded from http://www.orangesmile.com).

### FEATURE PROJECT COMPLETED BY DARREN VICKERS AT GC ARCHITECTS

### Lathbury Barracks

Lathbury Barracks was a former historic Lime stone retrenchment block, which fell into poor repair. Used for storing cars and office space. One of many military MOD buildings handed back to the Government of Gibraltar.

The brief was to refurbish and convert into public building for sports & activity clubs.

After the 1960's prefab corridor and office additions were removed, it was restored back to its former glory. With 1 metre thick walls, specialists from the UK were assigned to inspect, advise and oversee a sympathetic restoration of the lime stone walls.

The walls, at 1m thick, will take 6-9 inches per year / 8-10 years to fully dry out. Mainly due to a lack of maintenance, as well as repairs carried out in cement, rather than traditional lime mortar.

The external facades were fully re grouted and dry lined internally. With a waterproof lining and ventilation systems used to assist the drying process. Attempts were made to restore the internal walls, even with lime wash paint. But the dampness kept returning, requiring a 10 year temporary lining system to be installed throughout.

The building was fully refurbished with new floors, flat roofing system , windows, entrance doors, galvanised steel railings, as well as restoring the double arch / vaulted ceilings features.

This forms only one small example of former military buildings, handed back to the Gibraltar Government, and given a new lease of life.



Internal vaulted rooms suffering from extensive damp and water ingress.



Before the works commenced



MOD building with 1960s prefab concrete corridor & office structure.



Lime stone retrenchment block restored to former glory.



### ACKNOWLEDGEMENT

The Committee would like to thank **Darren Vickers** for taking the time to write this "Spotlight" feature article to share with Members of the Europe Centre.

We hope you have found it both very interesting and informative and should you wish to contact Darren about anything you have read in the article please do so at:

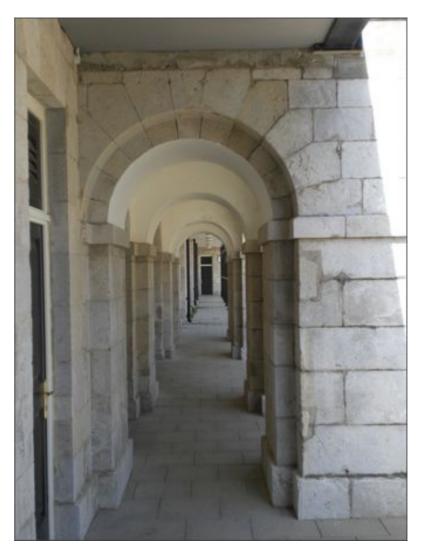
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### THE NEXT "SPOTLIGHT"

### Why not write the next "Spotlight" feature to share with Members?

If you would like to write a "spotlight" feature to be included in future editions of the Centre Newsletter then please contact anyone on the Committee.



Former 1960 prefab corridor and office space demolished, with hidden lime stone exposed and restored.

### **CENTRE COMMITTEE**

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