

THE DEVELOPMENT OF A GOLF COURSE JUST LIKE THAT!

Golf Course Designer, Jonathan Gaunt, gives us a fascinating insight into the design and build of a new course in Fes, the medieval capital of Morocco and home to Tommy Cooper's hat.

The language barrier, flat location on a flood plain and redirecting a river were unique challenges for the whole team as Jonathan explains

In Spring 2006 I received an email from a Moroccan agent in Rabat who was commissioned by MEDZ (then called Maroc Hotels et Villages), a subsidiary company of CDG Groupe Developpement (Caisse et Depot et de Gestion), to put together a design team for a golf resort project in Fes, in the Middle Atlas region of Morocco. He'd got our name from a British golf course contractor who we'd worked with on numerous golf projects in the UK. We were asked to make a proposal in competition with a number of other well-known golf course architects who had worked in Morocco previously.

Fortunately, we were chosen to provide the golf course design work, even though it was to be our first project in Morocco, and my French being sketchy, to say the least.

We were chosen, partly because of the

"British" connection, in that MEDZ could rely on us to provide a high quality, challenging golf course and, being a "British" design, the properties on site would be more attractive to Northern European investors.

In late 2006 the Royal Oued Fes Golf Resort project was given the "Royal" stamp by King Mohammed VI, a golfer himself - although not as keen as his father, King Hassan II, who was instrumental in getting a number of golf projects developed throughout Morocco during his reign in the 1980s and 1990s. It is one of many new leisure/touristic resorts scheduled to be built throughout Morocco since King Mohammed VI came to power.

The bustling sprawl of Fes is most famous for its ancient walled city, which many compare to the walled city of Jerusalem. Fes is the medieval



capital of Morocco, and a great city of rich Islamic history and culture. It has the best preserved old city in the Arab world: the sprawling, labyrinthine medina of Fes el-Bali.

The first design workshop was held on site in Fes in April 2006. The design team included a specialist town planning/architects practice from Paris - Reichen et Robert et Associes (RRA), plus their representatives in Morocco - Mounia B Chaoui & Saad Slimani Architectes (MBC&SSA) from Fes, plus a number of engineers who were already working on other MEDZ projects throughout Morocco.

Masterplanning meetings were held in Rabat in French, which made some aspects of the discussions difficult at times. However, we managed to develop a good understanding, particularly through drawings and the design work.



We worked very closely with RRA on the masterplan and established an excellent working relationship. We were given a brief by MEDZ to create a high quality resort course, not championship standard, but of a level high enough to host a regional tournament. RRA, on the other hand, were given instructions to create a high quality resort with five hotels, residential units, leisure and retail facilities, exhibition/conference/functions space and outdoor activity areas (public open space).

The site is on a flood plain in the centre of a bustling city suburb. The topography is pretty flat - there is a change in elevation of about six metres from the lowest to the highest point. Initial feelings are that it is flat and, some may consider, quite dull.



However, because the site is so large, it has many different characteristics that make it attractive for golf course design reasons. Interestingly, the site is immediately to the west of the King's Palace, inside which he has his own private 9-hole course.

The complication from the outset has been the Oued Fes, a river which flows through the centre of the site from west to east - this provided RRA with an inspiration for the design of the masterplan. Along the banks are tall

mature eucalyptus trees (some more than 100 years old), which can be seen from all the surrounding hills. Added to this, much of the site is covered in semi-mature eucalyptus trees and young pines, spruce and cypress - much of which were originally grown for a large on-site tree nursery. These trees will be transplanted onto the golf course as soon as the main playing areas have been seeded.



The existing site characteristics allowed us to achieve a great variety in golfing experiences by creating sheltered fairways in the woodland to the north of the Oued Fes, and waterside fairways by redirecting and diverting the river to create lagoons and water features that meander through the site. To the south the large grassland areas will allow us to create



bold flowing, undulating features with some water channels that will flood when the water levels in the Oued rise in winter and, in drier seasons, these will become wetland/marshland.

We also feel that we have created a good balance between grassed areas, woodland areas and wetland areas. The site is split about 60% to the north and 40% to the south of the river - 14 holes and driving range to the north and 4 holes to the south. The south side is less interesting in terms of existing features, but it has a closer relationship to the city with impressive views of mosques and minarets.



Half of the site floods every winter (November to March/April) with meltwater from the snow on the surrounding hills and rain which collects in this valley - the narrowest point being at the eastern end of the Oued Fes site, with the King's Palace being built on its banks.

There have been drainage problems on this land for many years, so we had to consider likely flood levels from the outset within the design. So, in order to keep the golf course in play throughout the year, with no threat of flooding, we raised the level of the main playing areas by at least 1.5 metres throughout all 18 holes, driving range and practice greens, by using subsoil from the



excavation of the numerous on-site water features. The total earth movement quantities have been in excess of 750,000 cubic metres.

We negotiated the required space for the golf course (about 75 hectares including a central lake of about 5 hectares) (45% of the total site area) with RRA to create a “core” golf course, with hotels and residential areas located on the periphery. It was an interesting period of the design process. We produced three or four alternative golf course route plans which were discussed, modified and, finally, we came up with a solution that worked for RRA in design terms, and for MEDZ in relation to the potential sales value of the residential areas.

We took into account the design of the residential areas (more than 1000 properties) and hotels aiming, as far as possible, to maximise their viewing potential (therefore maximising potential revenues), and also to design a course that would not create a safety problem for non-golfers.

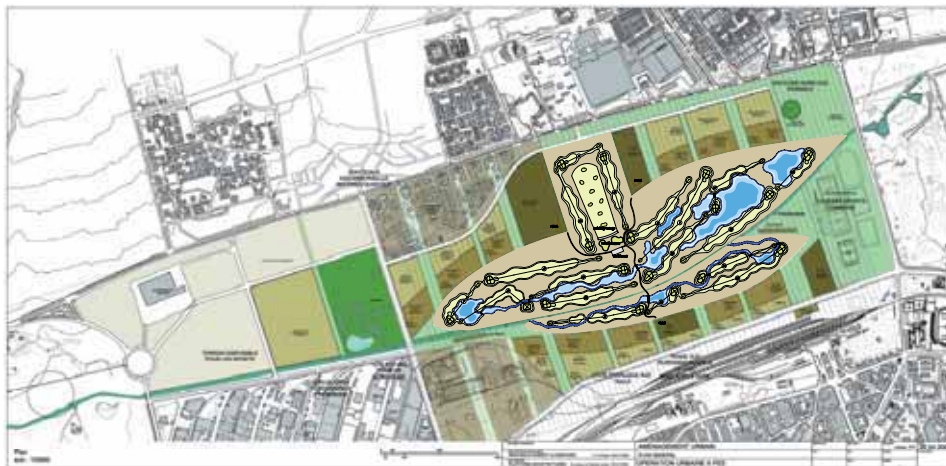
In addition, we took into consideration the use of the peripheral areas for circulation - maintaining the main pedestrian access alongside the river and allowing for strong connections between the five on-site hotels via buggy tracks.



We were not asked to compromise the design of the golf course at all by RRA (who had never been involved in the design of a golf resort before, but had masterplanned a number of Moroccan and French cities and towns), or by MEDZ. The golf course was recognised as being the “heart” of the development from the outset and they respected our opinions as golf course architects. Admittedly, it has been a learning process for all members of the design team.

The masterplan was agreed by the authorities (Esquisse) in Autumn 2006 and detailed design work was undertaken over the winter of 2006/7. Permits were granted for the development in Summer/Autumn 2007 and construction work began in November 2007.

MEDZ own one other golf course, Royal Golf de Fes, which was designed by American Golf Course Architect, Cabell Robinson, and built in the 1990s. However, they hadn't built a golf course before, so they asked our advice and we recommended that they employ a specialist project management team, using local, Moroccan companies for all the main works: clearance, earthworks, drainage, irrigation and finishing works.



Our project management team (CJ Management, based in Munich, Germany) had worked with us previously in 2005 at Kaskada Golf Resort in Brno,



Czech Republic. We knew how they worked and that we could trust them to do another good job for us and our client. The project management team comprises just two people (headed by Chris Johnson with full-time, on-site management by Tom Sedlmeier). Tom learnt French within a few weeks of starting work and quickly integrated into the Arabic lifestyle. Chris and I have been making site visits at regular stages through the construction period to ensure that work gets inspected and approved, however, Tom remains our “eyes and ears” on site.

CJ Management were also responsible for providing a specialist shaper - Chris had a host of good shapers who could do the work in Morocco. However, none were available at the time (Chris was also working on other projects in Egypt and Eastern Europe). We both knew of a shaper from Texas, USA - Lawrence White - who had been working on a project in Bulgaria and his work there had come to an end, so it fitted in nicely. Lawrence started work at Royal Oued Fes in November 2008.

It seems like a long time from commencement of construction work in



November 2007 to starting shaping works in November 2008, however, we had a number of “teething problems” to overcome. These were mainly associated with working on a golf project with local contractors who had never worked on such a project before. There were other issues: heavy rains over winter 2007 and again in winter 2008 caused several month's delay. In fact, the lakes had only just been excavated to final depth (about 5-7 metres deep) when the rains started in Autumn/Winter 2007/2008: recorded as the wettest winter in Morocco in 50 years!

The lakes remain full with water (May 2009), which is a big problem in that we cannot line them with butyl lining material until they are pumped dry. However, they will provide an excellent water source for the irrigation system when it comes to the seeding works (which are planned for July-November 2009).

Likely seed mixes are:

- Greens: Tee-one (T-1) Bentgrass
- Tees/fairways: Riviera Bermudagrass
- Roughs: Sheeps/Hard Fescue

Added to the water problem, there remains 350 metres of drainage outlet (sewer) pipe (which will be used for all facilities on site) to be installed (7 metres deep tunnel 1.5 metres diameter



concrete pipe) by the engineers, which is not scheduled to be completed until August 2009. Plus, we still have high voltage power cables crossing the site (there is a pylon in the middle of the proposed clubhouse location), which will be removed by July/August 2009 and replaced with a new line of high-power cables on the southern site boundary, running parallel with the railway line. As soon as these are removed the earthworks and shaping work can begin



on hole 6 (the cables currently run along the fairway line).

The clubhouse has been designed by RRA with MBC&SSA and they have produced a stunning contemporary design, plus driving range building. Work is set to begin on the clubhouse construction after the electric cables have been removed. RRA and MBC&SSA are currently preparing the design for the technical facility (greenkeepers compound), which is scheduled to be built and operational as soon as possible after the seed has been sown.

Site clearance and earthworks have been done by Houar from Meknes, drainage by SCET-SCOM and the irrigation system will be supplied by Toro and installed by Valmont - the biggest golf contractor in Morocco. The system design was provided by Lorenzo Simoni of Paneta S.R.L. in Italy.

We believe strongly that, when working in overseas locations, local contractors should be used - which benefits the local economy and works out considerably more economical for the client.



Remarkably, the drainage and irrigation installation is being done by teams of more than 50 men, many of whom live in shelters and tents on site. Much of the trenchwork is done by hand, using picks and shovels.

The project has ended up being multi-national: the

project is in Morocco, using mainly Moroccan contractors, but the design is British, the construction work is being managed by another Brit (Chris Johnson) and a German (Tom Sedlmeier), the shaper is American (Lawrence White) and the irrigation designer is Italian (Lorenzo Simoni).



Finishing works are being undertaken by Valmont and they are contracted to provide maintenance for one year from completion of the golf course. Seeding of the holes north of the Oued Fes - 1 to 10 and 15 to 18, the driving range, practice putting and chipping greens - is set to be completed by November 2009. The seeding of holes 11 to 14 is scheduled to be undertaken between May and September 2010.

I will continue to undertake site inspection visits to Royal Oued Fes until all construction works are completed in mid-2010.

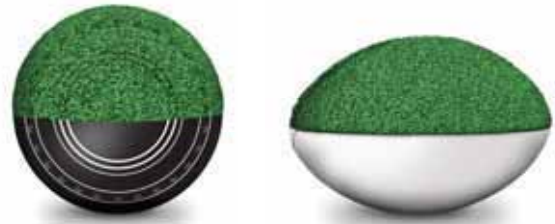
On the basis that we established a good working relationship with the MEDZ team, in 2007 we were appointed to produce the design for the next MEDZ golf resort - Tamuda Hills, near to Tetouan - on the stunningly beautiful Mediterranean coast of Northern Morocco. We have completed the design work and await the go-ahead from the client to begin construction works in Autumn 2009.

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