



Lake area in 2003



# Wadi Adventures

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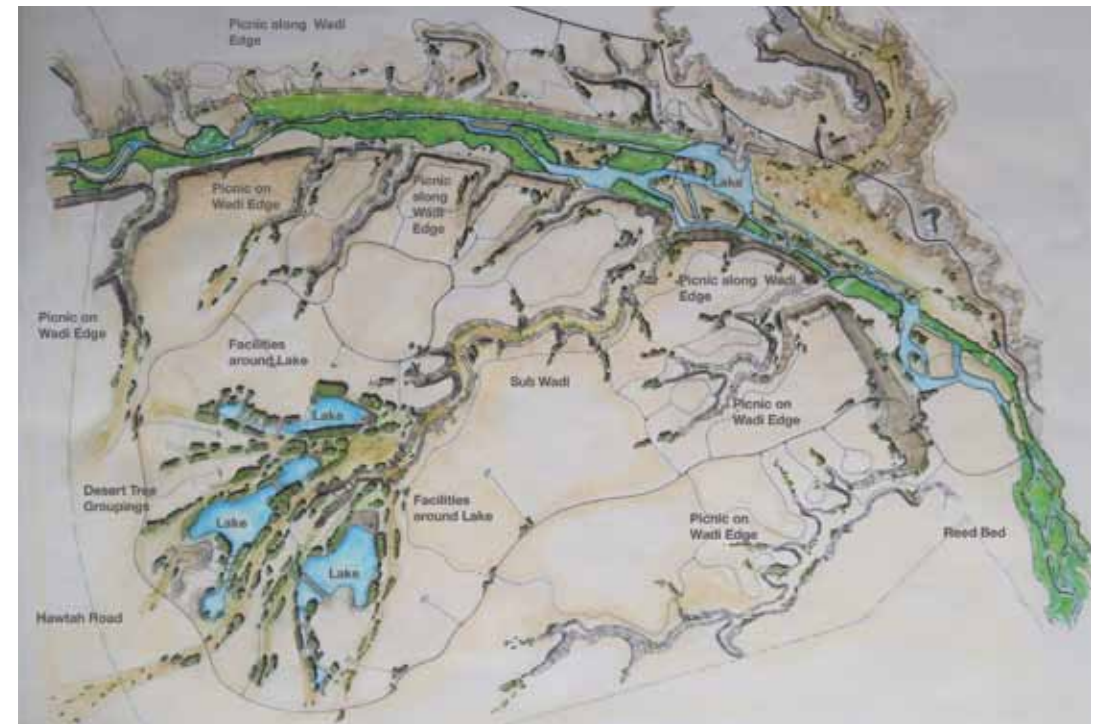
Egret in Wadi

**W**adi Hanifah has always been of great importance to the Riyadh Region. It is also deeply connected to the history of Saudi Arabia as both the modern capital of Saudi Arabia, Riyadh, and the capital of the first Saudi state, Dirriyah, are located at Wadi Hanifah. The name is derived from the Banu Hanifah, a Bedouin tribe that had settled in this area. In historic times Wadi Hanifah, with its fertile soils provided food and its geomorphology was ideal for settlements which were easy to defend. In more recent times Wadi Hanifah has become probably the longest recreational park in the Middle East - a highly successful landscaping project that provides easily accessible, and much needed, outdoor space for millions of people.

However it has not always been this way. In this article I would like to share my personal story of Wadi Hanifah, which starts in 1993. The Arriyadh Development Authority (ADA) gave my friend and now business partner Jens Boedeker and me the chance to go on a fact-finding mission in order to explore the Wadi. We had a ton of



Lake Area in 1993



The lake district



## WILDLIFE

equipment including a canoe, paddles and dry suits shipped to Riyadh. We did not know what to expect, as all available data was sourced from outside the watercourse. No one had undertaken the journey downstream by boat yet.

A boat in the middle of the desert, to understand this one must know that there is a dry part and a water bearing part in Wadi Hanifah. One source of the stream, is water from leaking pipes, the other is treated sewage water from the Manfuha treatment plant. This created a constant flow also known as Riyadh River. To my knowledge the stream started in the '70s and was connected to the rapid growth of Riyadh - the flow rate has increased since up to 400,000-600,000 cubic meters a day.

Going back to the exploration - we started in Riyadh and followed the watercourse 60 km downstream to where the water seeps into the desert sand and the stream stops abruptly. What we found was not only astonishing but also an unbelievably

beautiful sight. There was an abundance of birdlife - herons, egrets, coots, black winged stilts, eagles, ibises and the rare Arabian duck just to name a few of the 200 plus species recorded. I remember one early morning as if it had been yesterday; we were gliding silently down the stream past a tree that was literally covered in egrets. You could not see a branch, as there must have been at least 100 of these birds resting in this single tree.

The stream was flowing through vast beds of reed - sometimes only a few meters wide



Construction lake



Lake area

- then it opened up into long lakes with rocky islands in the middle. There were open shallow water areas with hundreds of black winged stilts and most surprisingly the water was crystal clear teeming with fish - mostly catfish and Tilapia. Even after the Manfuha sewage channel had joint the watercourse it took the reed beds only 1 kilometre to turn cloudy odorous water into clear water - you could see the river bed in two metre depth.

# RAYMOND SPORTS



Construction lake



Squoco Heron



# WILDLIFE

The population of Riyadh had not taken much notice of this area apart from farming activity and pumping water for irrigation. In parts of the Wadi, soil was bulldozed into the watercourse to increase arable land in other areas as the current had collected and deposited vast amounts of garbage. In our conversations with the local people we found out that most of them were not interested in the Wadi and no one really wanted to go near it.

In 2003, ten years after our first exploration,

ADA assigned us for the second exploration. The changes were evident. A once diverse biotope had been overgrown with reed, the shallow water areas had gone and the bird life had dramatically decreased not only in numbers but also in species. Most of the biodiversity was lost.

Interestingly the populations' perception of Wadi Hanifah had completely changed. The Arriyadh Development Authority was the driving force behind a process, which created in the following years the

most accepted and used recreation area in the vicinity of Riyadh. The figures below demonstrate the sheer effort it took to turn Wadi Hanifah into what it is now (before the construction of the lake area started).

- Quantity of trash and rubble removed: 500,000 cubic metres*
- Area of cleaned Wadi bed: 10 million square metres*
- Material used to repair flow channel: 2.5 million cubic metres*
- Parks created: 9*
- Lakes created: 5, total surface area 25 hectares*
- Shade trees planted: 30,000*
- Shrubs planted: 50,000*
- Pedestrian promenades: 7.4 kilometres*
- Recreational trails: 47 kilometres*

The Government has invested over US\$100 million into this environmental rehabilitation project.

When the development of Wadi Hanifah started around 2002, tons of garbage were removed from the Wadi and Moriyama & Teshima, in cooperation with Buro Happold, were awarded with the design of the water channel and the adjacent areas. Later, in 2007, Bödeker and Partners and I, personally were involved in the so-called Wadi Hanifah Landscape Feature Program - the goal was to upgrade 12 areas for enhanced recreational use.

The whole project was so successful that in 2009 Bödeker & Partners were given the opportunity together with our engineering partner Buro Happold to develop and

design the last piece in the Wadi Hanifah puzzle - the lake area 45 kilometres to the south east of Riyadh.

Apart from the recreational use for this area - the goal was to bring back the biodiversity found in 1993 and to create an area where wildlife and visitors can co-exist. The execution of the lake area started in 2013 and its first phase will be completed this year.

The overall area of this project will cover 36 million sqm of which in its initial phase a 131,350 sqm lake that we found during our first exploration was brought back to life. This lake had decreased in size due to extensive reed growth and the deposition of sludge. In 2014 the sludge and the invasive reed beds were removed.

The key features of the design are a visitor centre, picnic sites, trail networks, a waterfront promenade and two inaccessible islands in the middle of the lake of combined 47,000 sqm for wildlife with



habitat is reinstated. Along the way I have seen this project grow and flourish.

Personally I feel privileged to have not only been able to witness the changes made over the years but also was given the chance to make my contribution to this project. It clearly was the joint effort of many who made the story of Wadi Hanifah so successful.

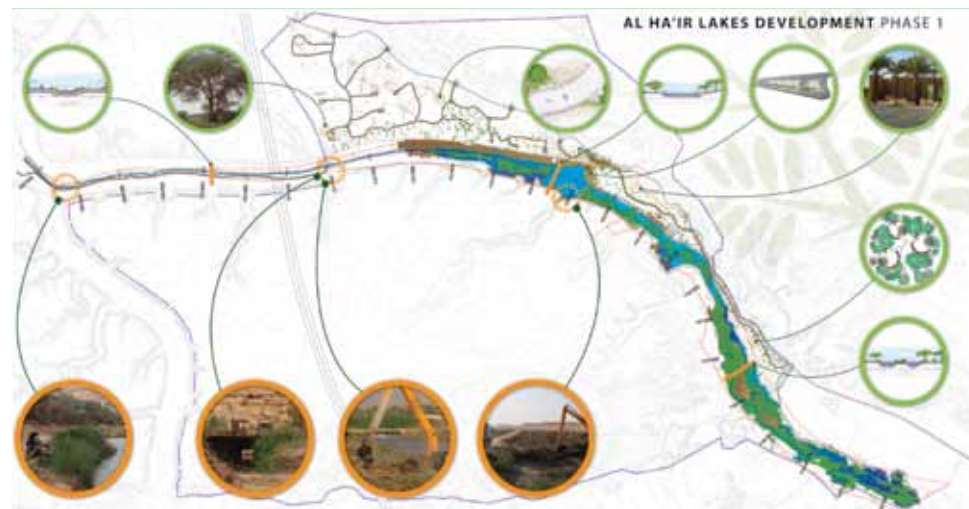
reinstated shallow water areas which will create a habitat for wading birds.

A bioremediation treatment plant was completed in 2009 and the Al Hair STP Water Treatment plant, which started operation in the middle of 2014, vastly improved the quality of the water. With the first phase of the lake area almost completed, my story of 22 years has gone full circle. In 1993 I started my journey along Wadi Hanifah now in 2015 I arrived again at the lake area to the southeast of Riyadh were a diverse

Foremost, however, credit must be given to the Arriyadh Development Authority who had the courage and vision to invest in a space that was once disregarded and neglected and through their endeavours, they have turned it into a highly successful project millions of people as well as wildlife and nature benefit from. ●

Wadi Hanifah was awarded with the AGA Khan Prize in 2010.

*Photo credit: Arriyadh Development Authority (ADA) Buro Happold*



Developed since 2002

