### Workshop of urban planning : " city & Qanat"

The principles:

There is a track for tourism which can connect us to the history of Yazd city.

Actually, there is a civilization based on Qanat in Yazd city and also in many other Iranian cities.

The tourism track of "seven tale of water and life" follows the water on the ground and underground to show how our ancestors establish their civilization in deserts on this track.

This track starts from a water reservoirs in historical square which is called "Amir Chakhmakh water reservoir", then reaches to water museum to show the "Sardab".

In continue in this track there is "Darvazeh Mehriz" then the "Payab"<sup>1</sup> of the great mosque of Yazd. By following the track there is the traditional bath of "Shah Kamaliye" and after that we will see the wash house and water mill. Please consider that before appearing the water on the ground to promote the agriculture, the city was built. Civilization of Qanat is the production of underground water.

The underground water was has gone from more 1000 kilometers distance to the city from the hillside toward farms. Agriculture has been formed by adopting with the nature. The crop has been produced by amount the water which reached to farms.

Yazd and Qanat has been connected to each other from ancient time. Qanats were the vital vessels of this city and earn the water. Under the Yazd there is an expensive network of Qanats which has been connected to the ground by Payabs. There is noticeable part of this network yet. Some Qanats of this city are still active such as Zarch, Ghasem Abad, Rahmat Abad, Mohamad Abad, Vaghf Abad and so on.

<sup>&</sup>lt;sup>1</sup> - Payab is a place which one can reach to the water of Qanat

Questions:

- 1- How Qanat and its values can be highlighted in urban development? How tourism track can help us in this case?
- 2- How can preserve technical and social values of Qanats in sustainable urban planning?
- 3- How can create coexistence between new urban requests and technology of Qanat?
- 4- How can we achieve to a better knowledge of the structure of Qanats and urban morphology?

The goals of workshop:

- 1- Introducing Qanats to participants as a sustainable system to provide water
- 2- Reviewing the factors of threatening of urban Qanats
- 3- Presenting some solutions to continue the activity of live Qanats
- 4- Reviewing the various strategies to use unactive Qanats

#### The urban design workshop: "the city & Qanat"

Qanat in Iran was the main way of harvesting underground water. There were many Qanats to use this vital material that unfortunately have been destroyed during the modernization of cities.

In historical city of Yazd some Qanats are still remaining which in this workshop we are trying to show some of them.

Identifying and improving of the physical quality of this places can help to improving the identity and highlighting the cultural heritage.

Each one of the identified points in the map are hydraulic structures such as bath, Payab, washhouse, water mill, and water reservoir. These structures used the water of Qanats which were followed under the ground.

In this workshop we will try to promote the quality of urban space which is around the hydraulic structures on the path of Qanats.

We are also trying to identify a track which can be a connective factor to connect hydraulic structures to each other.

This matter can be done by urban designing on the space around the structures or designing the urban furniture and so on.

Along with this activity the effect of the track of Qanat on the factors of the urban morphology which includes plots, streets and land uses (buildings) will be reviewed.

The output of the workshop include brain storming about the improving the physical quality of the space of hydraulic structures and the connective track between them.

The ideas will be presented by providing some plans, elevations and perspectives.

The main ideas of each meeting will be presented in 10<sup>th</sup> may.

The deadline of final designs will be in 5<sup>th</sup> June . The format of file to upload should be in PDF.



Hydraulic structures and suggested track



Detailed plans and identified points in the urban fabric

Point no. 1 : Amir Chakhmag water reservoir







Point no. 2 : water museum of Yazd







Point no. 3 : the gateway of Mehriziha











# Point no. 5 : Kamalyieh bath





### Point no. 6 : washhouse





## Point no. 7 : "Vazir" water mill







Conclusion:

It is supposed to that some plans and ideas will be presented in this workshop which can bring a new life for the technology of Qanat. These ideas will start a new approach and consider Qanat as a live and useful element in urban fabric.

In addition, some plans will be presented to promote and to enrich this track for tourism.