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Syalk Hill **The Base of** **an Ancient Civilization**

Historic Syalk area is 8,000 years old and located in Fin, Kashan Township in Iran. Syalk is the name of the first urban civilization formed 3 kilometers southwest of Kashan. It is known as the base for the oldest civilization. The area was also the location for the first urban living formed by Arians. Syalk Hill tribes were conquered by Arians 2,500 years ago. The remains of Syalk civilization were found in different layers of archeological discoveries.

Artifacts such as tall piped receptacles with horse and sun engraving, metal weapons, swords, and long spears have been found in Syalk area.

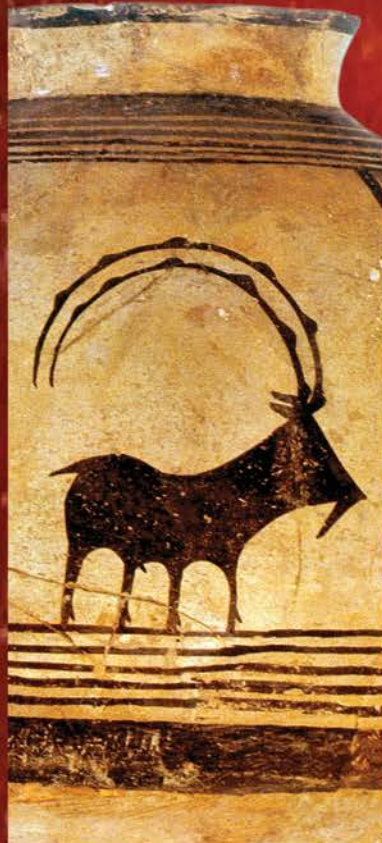
Historic Syalk area consists of two hills on the north and south with the distance of 600 meters. These two hills are located on south western part of Kashan Township on Fin road. The area has two graveyards. One of the graveyards is 3,500 years old and is identified as Graveyard A. This graveyard is located 200 meters south of south hill. A new boulevard is built on this graveyard. The other graveyard (B) is 3,000 years old and is beneath local plantation and agricultural fields on west part of hills.

Remains of human skeletons and ancient containers have been found in ruins of Syalk Hills. They are on display in Louver Museum, Iran National Museum, Fin Garden Museum, and a museum built next to this historic site. The oldest artifacts found on north hill belonged to 7,500 years ago. The last discovered pieces found in south hill belonged to 5,000 years ago.

This ancient habitat was next to Sea of Tetis, an ancient large sea which covered the central plains of Iran and Afghanistan. This ancient sea gradually dried up to make agriculturally rich land that attracted residents from high hill areas.

The first human dwellings in the area were made in simple forms of mounds or shelters made of canes and tree branches. Later residents learn to cover cane and branch walls and roof with mud

for better protection. In other periods, the walls were made of stratum or adobe. Syalk is an historic site in Iran plains with written scripts from pre Achaemenid era. Written characters found from the early civilization in Ilam were known as Parto Illami. Spinning and weaving cones found in the area are evidences that people who lived thousands of years Before Christ knew spinning and weaving. They also knew how to make metal artifacts by melting. Melting furnaces found in the



southern hill area are indicative that Syalk an industrialized area of that period.

This ancient hill was first registered as a national historical site in September 15, 1930. It was later registered as temporary international historic site in 1997.

Syalk Hill Discovery

Syalk Hill was Ziggurat or praying place of an ancient nation. The construction was made of mud and clay. This area remained unknown before 1930. It was known as a doomed city by Kashan people until it was discovered through archeological works. After display of a few pots in Paris in 1933 and identification of their discovery location in Syalk-Kashan, foreign archeologists were attracted to the area. Consultant to National Museum of France obtained archeological permission for the area in October of 1933. The archeological team from France then working in North of Lorestan was dispatched to begin work in Syalk, Kashan. The archeological team performed three excavation works in Syalk from November 1933 to January 1938. These works revealed the historical value of the area. The detailed report of archeological works was published in Paris in 1938 in two volumes in French language. Syalk was identified as the base for one of the most ancient human civilizations after publication of these two volumes. This report represents the archeological values of Iran central plains and is used as a reference by Iranian and international researchers and archeologists.



Towzin Electric Presented



The need for continuing education has been accepted in almost all organizations for various reasons. Technological advancements have revolutionized working tools and equipments. Working through such changing times requires acquisition of new skills and knowledge. Private or public enterprises and organizations

are facing continued need for acquiring advanced scientific knowledge and higher technical capabilities. This pressing need can only be satisfied through continued personnel training. As a part of its training program, Towzin Electric offered a one-day seminar on Friday May 3, 2013 on the subject of success techniques. This seminar was conducted by Mr. Poyan who received special prize from International Organization of Legal Metrology in 2011. This seminar had 300 attendees including academics, industry-business-medical experts, together with



Success Techniques Seminars

Towzin Electric board of directors, management, employees, specialists, sales representatives, and customer service force. The place of this seminar was Human Science Scholar Conference Room in Tehran. Mr. Poyan discussed various subjects that may influence personal and professional lives including the role of marketing in industry, personal and professional management, interaction with personal and professional contacts, and ways to improve the quality of life. The focus of discussion was the position of human relation in business and offered new



and innovative approaches that could be applied to business negotiations and situations. This seminar lasted 8 hours and was greatly welcomed by participants. The extensive reception of this seminar encouraged Towzin Electric to offer similar seminars regularly.



The Best Concrete Curing Procedure for Weigh Stations

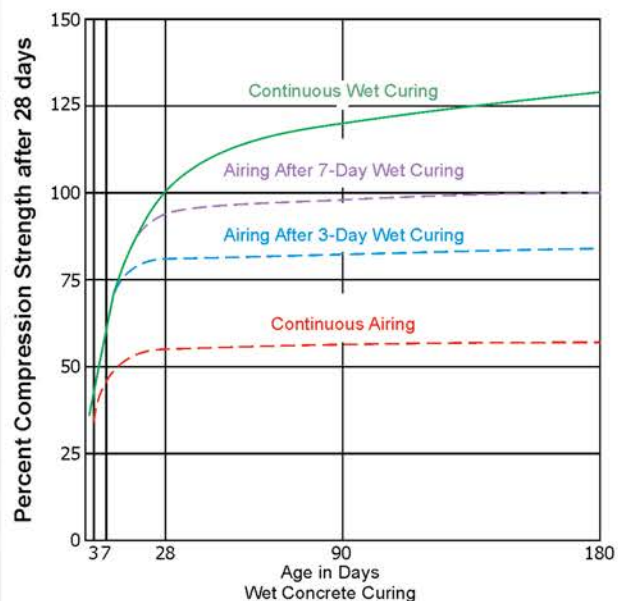


Concrete is a mixture of water, cement, and gravels. It is produced as the result of reaction of water and cement under certain environmental conditions. Concrete has over 170 years of history after making of Portland cement as presently is known. Concrete production has gone through many changes and advancements. It is being used in many constructions because of its unique characteristics.

Concrete structures have many advantages compared to other forms of construction, including lower cost, better quality, higher strength, lower conductivity, improved impact resistance, and longer life. These advantages have encouraged Towzin Electric to undertake extensive research and seek professional advice from experts in the field. Towzin Electric has since acquired knowledge and knowhow related to construction of concrete structures from well known academic centers and industries. Towzin electric has acquired concrete weighbridge knowhow from Czech and Germany for construction of concrete/steel weighbridges known as prefabricated concrete platforms. Towzin Electric has the production and sales of prefabricated platforms among its many offerings. Many potential customers are inclined to install this type of platforms because of its advantages and Towzin Electric has gained a strong position in concrete weighbridge market. The important points of consideration in a concrete platform are its structural construction and concrete curing. These two points strongly influence the quality of construction in weighbridge structure. Perfect concrete curing requires standard and accurate procedures based on the latest technologies and modern techniques. Implementation of proper weighbridge production procedures requires heavy investment. However, many weighbridge producers still utilize traditional and unscientific ways of concrete curing in their production because of their inability to invest in modern production techniques. This presentation is intended to provide an overview of concrete curing techniques as a prelude in production of stronger and lasting platforms.

What is involved in concrete curing?

Curing is an important step in concrete production. It is a process that maintains desired levels of moisture loss and temperature reduction in concrete. Curing process starts immediately after concrete pouring and finishing. A chemical reaction called hydration occurs when cement is mixed with water. The extent of this chemical reaction strongly influences the strength and life of concrete. Controlled moisture and temperature levels during curing prolong hydration reaction in concrete production. Proper curing techniques improve concrete characteristics including durability, strength, water proofing, abrasion resistance, volume stability, anti freezing, and melting loss of anti freezing agents. Concrete strength increases rapidly during early stages and continues on slowly for an unlimited period as shown in the following chart.



Curing Objectives

1. Moisture loss prevention or recovery
2. Desired temperature maintenance for a specific period
3. Strength development through complete cement hydration

Curing Period

The required period for concrete moisture maintenance depends on cement type, mixing ratios, desired strength, concrete piece shape and sizes, ambient temperature, and future exposed conditions.

Curing Techniques

Pool Curing (Water Submersion)

The best and most complete approach for concrete curing is water submersion. Concrete pieces are completely submerged in water pools for 7 days to allow them develop maximum strength. This concrete curing procedure takes place under totally controlled conditions to promote maximum possible strength. The implementation of this procedure requires extensive investment in construction and equipping of large pools, transportation facilities, and water distribution. Only a few weighbridge producers possess the required financial strength to invest in these facilities.

Steam Curing

This procedure is used for rapid concrete curing with applications in production of cement blocks and small concrete pieces. Producers use this technique because of its economic advantages. The concrete strength obtained in this procedure is not as high as the strength achieved by concrete curing through water submersion.

Gunny Covering

Saturated wet material covering such as gunny or concrete surface wetting is the procedures used by small producers in absence of adequate facilities or technical procedures. These techniques fail to develop the concrete material strength required for construction of weighbridge. Consequently, the structure will soon develop

.cracks and, ultimately, disintegrates

Steam curing requires special care to obtain satisfactory results. There are numerous reports about poor quality and low strength of concrete produced by this procedure because producers are not adequately equipped with advanced and insulated facilities.

Steam curing is currently used for non-construction prefabricated pieces or concrete pieces that are not subject to heavy loads. This curing procedure, therefore, is not suitable for large concrete pieces used for construction of weighbridges.

Comparison of curing techniques shows that water submersion to be the best curing approach. Only platform producers equipped with large water pools are able to produce large concrete pieces with the highest required strength to assure high quality structure with proper accuracy over a long period of usage.

**Pool Curing
(Water Submersion)**

Resistance: %125



Steam Curing
Resistance: %100



Gunny Covering
Resistance: Unknown





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