

IASCE

Newsletter

EDITORIAL

In pervious editorials, we discussed the importance of being active in the cities and communities we live in.

We do need to add our voice to the direction and the possible future of our surrounding environment.

Active participation, however, needs to go far and wide.

One area, where every member's involvement is highly encouraged, is the Society itself.

The Society needs ideas, suggestions, thoughts, and above all follow through.

We need to come prepared to the open forum segment of the meetings and share our thoughts and enthusiasm. We need to discuss differing and opposing views to explore new directions. And, we need to volunteer for specific tasks and carry out the same assignments.

Our group exercise of September in trying to decide on a mission statement was a successful attempt where ideas were contributed and pros and cons of the same suggestions were debated by the membership.

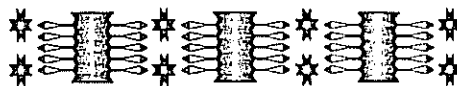
Together, we fashioned a statement which was voted on and selected by majority.

However, a mission statement is not meant to be just a slogan to be written some place and forgotten about.

Our mission statement reads: "TO PROMOTE PROFESSIONAL DEVELOPMENT AND POLITICAL INVOLVEMENT OF ITS MEMBERS."

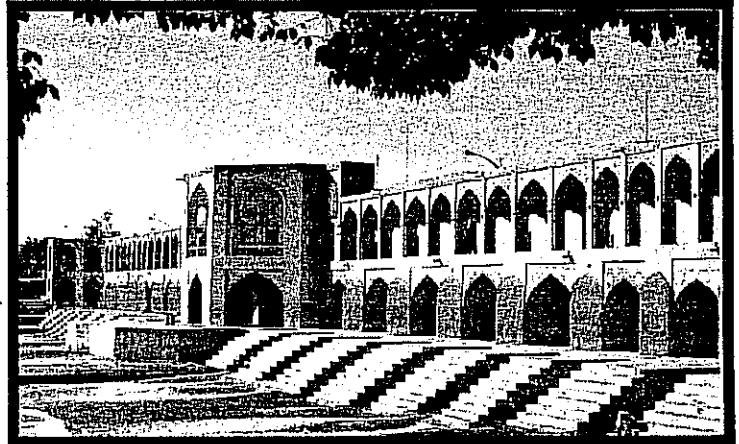
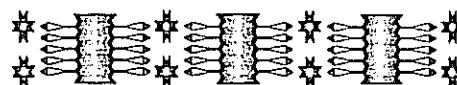
A grand and lofty ideal. But, we can not just leave it at that. The Society's mission statement needs implementation. It needs an action plan. We, as individual members, need to work in harmony and bring into fruition the very essence of this ideal. To do any less, we would be working contrary to the goals expressed in our chosen mission statement.

Let's get active folks!



Mission Statement:

TO PROMOTE
PROFESSIONAL
AND POLITICAL
INVOLVEMENT
OF ITS MEMBER



Famous Bridges

The Khajou Bridge was built between 1642 and 1667 under Shah Abbass II. It takes its name from the district of Khajou on the northern bank of the Zay-andeh-Rood River, which connects with the south bank.

It draws its inspiration from Si-o-Seh Pole, having been built in two layers, however it expands and

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enhances many of the features of the older bridge. the bridge is some 110 meters long and a little over 20 meters wide for most of its course. The eastern side of the bridge has a high sill which collects the water, raising it by some two meters. This provides a basin from which irrigation water for the surrounding area is drawn off in a series of channels. From the lower section of the bridge, which consists of some 20 arches, stairs lead to the spacious second storey where a series of niches have been cut for people to gather and meet each other. An octagonal pavilion is set in the center of the bridge which now houses an art gallery.

Because the flow of the water of Zayandeh Rood has been reduced, by an aquaduct which crosses the river upstream of this bridge, it has been possible to see elegance of design and also the structural integrity of this bridge.

In Volume III of Arthur Pope's monumental Survey of Persian Art, he states:

"Efficient, luxurious, poetical, this bridge is a typical product of the Iranian imagination, and proof that Persia was capable of sound and original architecture long after degeneration had begun to compromise the building art in other countries of Islam."



Engineering and Politics

(PART TWO)

To go beyond the numbers, it sometimes offers unexpected solutions. The entrapment, which numbers may lead us into, invari-

ably puts blinders on the engineer. By taking the wider perspective, by leaning back and seeing the box in the environment surrounding it, one might discover the best solution.

As an example, we were recently wrestling with a request for a painted crosswalk at a potentially hazardous location. We were armed with sight distance measurements, accident history of the area, light differential argument argument (since there was an under crossing nearby), and liability considerations to issue an educated, emphatic no to the request. Regardless, the fact

remained that the school children crossed the street. The students and the school principle wouldn't understand the probability of all the danger we pointed out and even if they understood it, they wouldn't care about our numbers.

After several visits to the site, it was finally observed the the students in the peril were using an unauthorized school gate to get home.

By locking up the gate, and forcing the kids to use another street, the problem was eliminated. Nowhere in our little street analysis was there a gate shown (three blocks away) and nowhere we

Chronological Table of the LEADERS IN HYDRAULICS AND RELATED FIELDS

CHARLES AUGUSTIN DE COULOMB	1736-1806
Through torsion experiments on fluid resistance, developed relationship involving first and second powers of velocity.	
JOSEPH LOUIS LAGRANGE	1736-1813
Introduced velocity potential and stream function of modern hydrodynamics; derived equation for speed of wave propagation in open channels.	
GIOVANNI BATTISTA VENTURI	1746-1822
Performed tests on various forms of mouthpieces - in particular, conical contractions and expansions.	
RICHE DE PRONY	1755-1839
Extended resistance relationships formulated by Chezy and Coulomb.	
FRANZ JOSEPH VON GERSTNER	1756-1832
Developed first theory of deep-water waves.	
REINHARD WOLTMAN	1757-1837
Developed first practical current meter; established present-day powers of open channel resistance formula.	
JOHANN ALBERT EYTELWEIN	1757-1837
Wrote widely on hydraulics; simplified Woltman-Du Buat resistance formula.	

(Will be continued on the next issue)

knew of a mathematical equation or a symbol for a lock!

Of course, from our engineering window to the world, we had stated our opposition to the crosswalk and closed the file. It was political pressure that kept the issue alive for further probing.

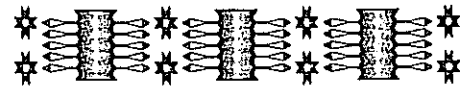
No hasty conclusion is suggested that the above situation speaks for all cases. Again, the test should be whether there is an ultimate common good or not.

It is, however, suggested that as engineers we should anticipate, plan for, and be open to non-engineering suggestions made by non-engineers.

Even if at first reflection some ideas may seem off-base and irrelevant, why should we expand energy fighting them? Instead, by being open them, we may find the best solution yet.

Engineering and politics? They may not mesh well in theory, but it is a whole different story in real life.

Nasser Abbaszadeh
August 1997



ENGINEERING HUMOR

Why Specs Live Forever?

The US Standard railroad gauge (distance between the rails) is 4 feet, 8.5 inches. That's an exceed-

ingly odd number. Why was that gauge used? Because that's the way they built them in England, and the US railroads were built by English expatriates. Why did the English people build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used.

Why did "they" use that gauge then? Because the people who built the tramways used the same jigs and tools that they used for building wagons, which used that wheel spacing. Okay! Why did the wagons use that odd wheel spacing? Well, if they tried to use any other spacing the wagons would break on some of the old, long distance roads, because that's the spacing of the old wheel ruts.

So who built these old rutted roads? The first long distance roads in Europe were built by Imperial Rome for the benefit of their legions. The roads have been used ever since. And the ruts? The initial ruts, which everyone else had to match for fear of destroying their wagons, were first made by Roman war chariots. Since the chariots were made for or by Imperial Rome they were all alike in the matter of wheel spacing.

Thus, we have the answer to the original questions. The United State standard railroad gauge of 4 feet, 8.5 inches derives from the original specification for an Imperial Roman army chariot. Specs and Bureaucracies live forever. So, the next time you are handed a specification and wonder what horse's ass came up with it, you may be exactly right. Because the Imperial Roman chariots were made to be just wide enough to accommodate the back-ends of two war horses.

Evangelist

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MEMBER PROFILE

It is our pleasure to introduce one of the co-founders of the IASCE.

In 1995, Mr. Reza Abassi, along with a handful of other engineers, began promoting an idea which ultimately culminated into the present day Society.

Mr. Abassi became the main driving force behind the would-be society. He spearheaded several small meetings with others to brainstorm and the first large gatherings were at his company building. Eventually, as the interest and participation grew, meetings were moved to Irvine.

Reza is the only IASCE mem-

ber who has the distinction of having served on the Society's first two Boards of the directors, both in the vice-chair capacity.

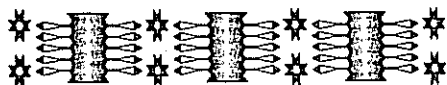
Mr. Abassi has demonstrated his untiring attitude in his professional career as well. He is now the president of AAE Consultants, a young thriving engineering company in the City of Fullerton.

Reza began his professional career in the State of Florida where he is a registered engineer.

In California, he promptly secured his registration in Civil and Traffic disciplines while getting his Master's degree in Transportation Engineering. Prior to the start of his own company, he was the office manager for the Avacon Engineering in Diamond Bar.

Mr. Abassi is athletically inclined and enjoys playing soccer above all. He may also be the only person in all of California who roots for the Tampa Bay Buccaneers.

In his case, hope always springs eternal.



A WINDOW



TO THE ARTS

حیلت رها کن عاشقا دیوانه شو دیوانه شو
 وندر دل آتش درا پروانه شو پروانه شو
 هم خویش را بیگانه کن هم خانه را ویرانه کن
 وانگه بیا با عاشقان هم خانه شو هم خانه شو
 رو سینه را چون سینه ها هفت آب شوی از کینه ها
 وانگه شراب عشق را بیمانه شو بیمانه شو
 باید که جمله جان شوی تا لایق جانان شوی
 چون سوی مستان میروی مستانه شو مستانه شو
 آن گوشوار شاهدان همصحبتی عارض شده
 آن گوش و عارض بایدت دردانه شو دردانه شو
 گوید سلیمان مر ترا بشنو زبان طیر را
 دانیکه مرغ از تو رمد رو دانه شو رو دانه شو
 بنواخت نور مصطفی آن استن حنانه را
 کمتر ز چویی نیستی حنانه شو حنانه شو
 گر چهره بگشاید مهم پر شو از او چون آینه
 و زلف بگشاید بتم رو شانه شو رو شانه شو
 قلبی بود میل و هوا بنهاده در دلهای ما
 خواهی گشایی قفل را دندانان شو دندانان شو
 یک مدتی در کان بدی یک مدتی حیوان بدی
 یک مدتی چون جان بدی جانانه شو جانانه شو
 تا کی دو شاخه چون رخی تا کی چو بیدق کم تکی
 تا کی چو فرزین کجروی فرزانه شو فرزانه شو
 چون جان تو شد در هوا ز افسانه شیرین ما
 فانی شو و چون عاشقان افسانه شو افسانه شو

مولانا

استن = ستون، حنانه = کریان، بیدق = پیاده شطرنج، فرزین = وزیر شطرنج



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