

EMPHASIS ON FINISHED APPEARANCE -
A PROFESSIONAL RESPONSIBILITY ¹

by

Guy F. Vansant, Jr.
Assistant Projects Management Engineer
Kentucky Department of Highways

The Roman Arch affords a good beginning for a discussion emphasizing appearance of structures. Many builders of magnificent works preceded the Romans - the Assyrians, the Persians, the Egyptians - however, the Roman structures were engineered into arch forms unknown to their predecessors who employed massive stone lintels to span between columns.

At the dawn of the Renaissance, near the Tuscan quarries north of Rome in the City of Florence, it is said there were more artisans than there were citizens. A list of the more renowned include Michaelangelo, Cellini, della Robbia, Giotto, Brunelleschi, Leonardo from nearby Vinci, Lorenzo Ghiberti, and many others.

Lorenzo Ghiberti was challenged by the Pope, at their first meeting in Rome, on his qualifications for a design commission to be underwritten by the Papacy. Although Ghiberti very much wanted the Pope's sponsorship, he very haughtily and unhesitatingly penciled on the back of another drawing - for the Pope's inspection - a large almost perfect circle with one free-hand stroke, saying, "These are my qualifications."

Of the bronze doors which Ghiberti designed and erected under this commission for the Santa Croce baptistry, Michaelangelo once said, "They are worthy to be the gates of Paradise." They were partly damaged in last year's flooding of the Arno River, but they remain along with the bridges, public squares, towers, and public and private palaces that chronicle the fierce competition among the designers, architects, artists, craftsman and public-minded citizens of that locality around which the Renaissance had its origins. Why?

¹ Editor's Note: Mr. Vansant presented a group of 200 selected color slides beginning with classic Roman and Renaissance structures in western Europe and extending to modern-day highway bridge structures in Japan, California, and rural and urban areas of Kentucky. His opening statements are recorded here.

Even today, almost without exception, Florentines take individual, personal concern for any construction of public works and are outraged by the slightest offense to the public taste. In Michaelangelo's time, it was customary to recruit design talent with much the same vigor that we today recruit ball players. And like today's ball players, they did not come from elite backgrounds; they were sons of peasants, workers, and tradesmen.

By comparison, we are allowing entire generations of talent and genius to go to waste on a vast scale. We are a community cursed by indifference, the sure symptom of lowered vitality. Instead of freshness of vision, we seem to be fostering within the engineering establishment a massive institute for the blind! If a new America is to emerge from the drawing boards, we must recruit and motivate a whole army of engineer designers and draftsman to participate in the adventure. The new America will not come into being until it is first visualized and clearly conceptualized, even delineated.

Note the care with which this fine Roman Arch across the Tiber River was designed and constructed. The elegance obviously is directly proportional to the skill which was applied to the working drawings.

The Italians brought the stone arch to France, as evidenced by this remnant of bridge across the Rhone River at Avignon. It was built over 600 years ago, early in the 14th Century, during the 70-years exile of the Popes in Avignon. The French song, "Sur la Pont d'Avignon," helped make the bridge famous. It was partially destroyed during World War II.

Stone and wood were the principal construction materials in the Western World until the advent of steel and, subsequently, reinforced concrete. We now must ask, "What is the role of government in developing conceptual designs?" The slides which follow demonstrate the importance granted to visual qualities in bridge designs by the California Department of Highways.

Kentucky has employed architectural studies at various times to individual problems, but these efforts are faint by comparison to California practice. Good details are needed if our programs and projects are to avoid a circularity, quite unlike the classical circle of Ghiberti. The circularity to be avoided is the promise of a continuing cycle of deterioration, high maintenance costs, rapid obsolescence, public disinterest, rejection, disuse, and replacement by public censure of civil works and civil engineer constructions. It is ignoble for civil engineers to take part in planned obsolescence.