Abstract—What is quality in architecture and urban design? Practising architects need to interpret the signs of quality in order to produce good architecture. But architects also have to understand quality for judging design proposals. From this point of view quality is a key concept in architecture and urban design. Quality is inseparably linked to the relationship to the design, production, and our experience of the built environment. It is impossible to point out a winning proposal in architectural competitions without ranking their quality. The fact that judgments can change over time and differ among individuals doesn't free members of the jury from forming opinions about quality questions. Look back on origin of the concept is in important from this perspective.

Key words: Architectural quality, design, judgment

I. INTRODUCTION

How do you judge architectural quality? Which attributes in the environment capture your discerning eye? Are your impressions of quality formed by practical reasons, rational considerations or emotional experiences? Professional quality assurance is attained in three phases; one defining quality, one attaining quality and one supervising quality work. The quality experience is left to the market. Two researchers who have greatly influenced the development of the quality technique in trade and industry are the Americans Joseph M. Juran (1904-2008) and W. Edwards Deming (1900-1993), both of whom emphasized the important role management plays in successful quality work. Juran also stressed the importance of ongoing quality improvements.

Another important researcher is Philip Crosby (1926-2001) who introduced the concept of zero defects. Zero defects is defined as the right quality. But zero defects is not enough to generate a positive experience of quality in architecture. More is required if you want a product with good quality. Fault free and correctly dimensioned plans do not guarantee that a structure results in a positive quality experience. A well-proofread manuscript free of typographical errors does not necessarily communicate an interesting message to the reader. There must be an enhanced value for the object, an addition to the environment that communicates a feeling of quality to the user.

Quality in architecture and urban design needs a primary generator.

At the end of the 1970s Crosby was instrumental in extending the quality concept to the entire production chain. Stressing management's role in securing/assuring successful quality work in industry is generally referred to as TQM, or total quality management. Emphasis is on the early stages of models before manufacturing. Instead of looking for defects in products the design phase is seen as a strategic phase in the production process (Moss, 1996). The transition from minimizing defects to maximizing quality is a way of identifying good characteristics and stresses design as the foundation for future quality experiences.

Satisfying a customer's requirements and meeting their expectations is an ever-growing goal for quality work in industry and trade. Quality has become a means of competing on the market. Quality is linked to communication; traits, values and experiences acquired through policies and markets. These require suppliers who can make quality visible and relate quality in an understandable way to customers and the general public; this again brings up the importance of design and aesthetics as key aspects of quality work.

II. LOOKING BACK

The relationship between objective characteristics and subjective experiences are very old. We have to return to the Greek philosophers in order to find the background to the aesthetic dimensions and understand how the quality concept has developed. Democritus (460-371 BCE) tried to define the concept of quality by considering the natural state of an object in relation to man's perception of that object. He considered the characteristics naturally inherent in an object to be its objective qualities. Such is the case with weight, size and density. Taste, smell and colour, on the other hand, were considered by Democritus to be subjective qualities, which the object is accorded as a result of the human perception process. This view of quality as a mixture of “hard” objective characteristics and “soft” subjective feelings is now a part of everyday language.

David Hume (1611-1676) and John Locke (1632-1704) divid-
ed quality into primary and secondary qualities based on Democritus' theories. Primary qualities are inherent in the object regardless of people. Secondary qualities are perceived. Locke (1983) uses a snowball to demonstrate the two-sided nature of quality. The snowball is able to evoke the sensation of a white, cold, round object in the eyes of the beholder. This hypothesis demonstrates the primary qualities as an objective basis for the valued experience of the snowball or its secondary qualities. The key here lies in the criticism of the idea that aesthetic qualities are subjective, created in the eye of the beholder (Fink 2002).

Understanding quality as a combination of hard objective characteristics and soft subjective sensory impressions is based on a long philosophical tradition. The discussion has focused both on the object and on what basis people can express themselves about quality issues in a reliable way. The answer to the hard qualities has been sought in measurable factors. Quality is a requirement that should be defined, specified, controlled and implemented. Soft qualities are the effects that appear via subjective sensations and the values that objects are ascribed. Such quality judgments describe the object as well or poorly made. The aim of this approach is to attain high quality. Something good and attractive should be produced. Good solutions are seen as a goal worth striving for. Hume (1962) points out that quality has an experience value which can be determined and it is our subjective ability for evaluation – sharpened through education and practice – that makes it possible for us to say what is good or bad about various accomplishments. This is also the case when there is dissenion among competent judges.

III. Architecture
Practising architects need to interpret the signs of quality in objects. Quality in architecture and urban design is inseparably linked to an evaluating relationship to the project, building, and environment, which should be assessed. It is impossible to point out a winning proposal in architectural competitions without ranking their quality. The fact that judgments can change over time and differ among individuals doesn't free members of the jury from forming opinions about quality questions. High quality is the recognition of something as good or well made. Poor quality represents a degree of rejection or failure. The lack of quality in such cases is noted by judges and their assessments are lowered.

Plato (427-347 BCE) raises the conflict between celestial values and worldly desires. In the Phaedrus dialogue Plato tells of a team of horses drawing life's chariot through the heavens. It is a team of two horses. On the one side is a white horse, a sensible and rational horse following the laws of logic. The white horse is "straight, with a high neck and finely-arched nose...devoted to honour, self-control and modesty, a companion of true opinion not in need of the whip, guided only by command" (Plato, 2001, p 343). On the other side runs the black horse. Crooked, poorly built, short-necked, snub-nosed with bloodshot eyes, boastful and hardly obedient to the whip. The black horse represents feeling, an incalculable horse with a soul difficult to tame. Plato portrays the black horse – symbol of suffering and fantasy – as ugly, unwieldy and false. The white horse is hindered in its course. Art is demoted.

Common sense is the driver trying in vain to keep the horses on course. The horses pull in opposite directions all the time, one willing, beautiful and fast. The other riddled with faults. The image has become a myth, a poetical vision for posterity, which we call an idea-teaching. According to Plato only in the realm of ideas do objects appear in their complete form. Here lies the foundation for architectural quality as a timeless value. It is a concept that is still valid among architects. For Plato ideas were eternal. They existed because of divine will. Plato viewed the world around us, the phenomenon world, as an unreliable mirror image of the idea world. Reality is the shadow of the idea world. A black horse. Art is at best a copy of the idea world. This suspicion of the subjective side of art returns in a pendulous motion throughout history. Feelings are set against common sense, spontaneity against rules, renewal against tradition, and functionality against aesthetic dimensions. The world is divided between classical ideals and romantic representations that are reflected in our position on basic quality questions.

Contrary to Plato, Aristotle (384-322 BCE) did not conceive of art as a deceptive phenomenon. Instead, Aristotle thought knowledge should be sought through the study of things as objects and the human experience of them. Arts' aesthetic structure is described in Poetics. Aristotle's hypothesis is that poetry as an art consists in works portraying events in the real world. He takes an objective stand. Through systematic observation it is possible to arrive at specific signs of quality. The measure of poetry's quality is its capacity to set the audiences' senses in motion. For Aristotle the goal of tragedy is to arouse fear and compassion in the theatre audience: "compassion fills someone who has undeservedly experienced an accident; fear is aroused in normal people like us when they experience adversity" (Aristotle, 1994, p 41). According to Aristotle these effects are attained through the goodness of the characters, their adaptation to the role, the character's conformity with nature and consistent performance. Artistic quality is a question of a) poetry's form, b) the actors' performance and c) the audience's experience. The question is then: what is quality, how is quality created, and what is the point of departure for judging quality.
Using Aristotle as an inspiration, architectural quality may be sought in the process from the fundamental idea to the completed structure. According to Aristotle, the goal is to identify quality that can be created, carried out, judged and experienced from different perspectives. Quality assessment in the design phase is based on representations; sketches, plans, scale models, and graphic illustrations. Testing of the structure “in situ” takes place during the transition to the administrative phase, when the full-scale environment is a basis for quality judgment. Then it is a question of the experiences evoked by the architectural and town building project and how the building – after completion – affects our senses. When judging the quality a decisive element is the extent to which the environment fulfils the anticipated positive experiences for the users, visitors, proprietors and administrators. This assumes that the form of expression results in the intended impression, a foreseeable whole general impression. “In situ” quality judgments are part of the changing process of society. We continually get new viewpoints about what are good, desirable and suitable quality goals for our undertakings. The market makes us especially aware of the profitable trends in architecture and town building. How do you understand and produce quality in architecture and urban design?

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This paper is an introduction to the course “Evaluating Architecture” at the School of Architecture, Royal Institute of Technology, Stockholm, Sweden. The course was first given 2006 and has developed through comments from student. I start the course with a lecture looking at background to concept and how it differs between architects and engineers in the building sector.

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