Neveu, Marc J. "Textual Origins of the Professional Architect." Paper presented at the 2008 American Society of Eighteenth Century Studies Annual Conference, Portland OR, March, 2008.

Surprisingly little research has been done on the history of the profession of architecture. Most writing places the architect in one of two camps. The first tends to collapse the duties of contemporary architects onto an often very different historical situation. Roman architects, for example, were not required to graduate from a NAAB accredited university, pass the ARE (Architectural Registration Exam), or work as an intern prior to designing the Pantheon. The second type of study only begins with the organization of licensure, typically in the late 19th c. This follows research into the professions by Carr-Saunders who, in his landmark study *The Professions* (1933), listed five criteria by which we may define a profession. They are as follows: the foundation of a voluntary association; the exclusion of unqualified (socially or otherwise) persons; a development of codes of conduct; a system of tests and examinations; and, finally, the control over relevant educational institutions. While this definition conforms to the current "professional" requirements for architects in Europe and North America it does not take into account the work done by architects prior to the formation to the national associations or schools of architecture. What is often at odds between these two descriptions is a shared definition of what the term "professional" might mean. My paper this morning will briefly discuss a selection of pedagogic texts across the Italian peninsula of the eighteenth century that help to demonstrate the emergence of a new class of "professional" architect. My thesis is that codification of educational treatises, over or in place of humanistic treatises, lays the foundation for the professional responsibilities of the architect that are established in the late nineteenth century. I will begin a little bit earlier.

The re-discovery of Vitruvius and the writings of Leon Battista Alberti in the 15th c. signals, for many authors, the elevation of architecture from the mechanical to the liberal arts. Leon Batista Alberti, author of the first original treatise of the Renaissance (*De re Aedifactoria,* 1486), established the perception of the architect. I quote:

> Before I go any farther, however, I should explain whom I mean by an architect; for it is no carpenter that I would have you compare to the greatest exponents of other disciplines: the carpenter is but an instrument in the hands of the architect. Him I consider the architect, who by sure and wonderful reason and method knows both how to devise through his own mind and energy, and to realize by construction, whatever can be most beautifully fitted out for the noble deeds of man, by the movement of weights and the joining and massing of bodies. To do this he must have an understanding and knowledge of all the highest and most noble disciplines. This then is the architect.

Indeed, the Humanist Treatise indeed became the basis of architectural knowledge for the next 200 years and while many provided advice on construction issues, it is clear that predominantly illiterate craftsmen were not using the Latin texts of Alberti or Vitruvius while building. Even with Palladio and Scamozzi, whose built works seem similar to their "theoretical" writings, it is clear that the built work was not a result of the writings.. For

Alberti, and others that followed, the essential skill of the architect was not manual like that of the medieval mason. Rather the nature of the knowledge appropriate to the architect was the aptitude of *disegno*. In Sixteenth century Italy the notion of *disegno* made it possible for a blurring between artists / architects / sculptors. Essentially any one could do all three. What mattered most was the conception and not the completion of the work. The Academies (Florentine in particular) supported this. The only "practical" training was in drawing, never in construction or another related building activity. Architecture was a vocation for the gentleman with a classical/liberal education and a more specific knowledge of mathematics and geometry.

Much of the labor for the production of architecture (master masons, etc), in Spain, Italy and France, was organized into and protected by, guilds. Architects, though, did not have any such support. The most successful integration of architects with the existing guild structure was in Italy and only architects who began their training in the guilds accomplished this. (Palladio: stone mason, Giulio Romano: woodworker, Jacopo Sansovino: sculpture). In fact many "architects" were only given the title as a result of their writing. Giorgio Vasari, the first writer to chronicle the lives of artists, architects and sculptors (*Vite,* 1550) named only three "architects" and these were known for their writing and not built work. The other way in which an architect was named as such was as a political title. In this sense, the architect acted more as a consultant to the building works of the political leader.

By the mid 17th c., the exact nature of the professional responsibilities of the architect was not precisely determined. What was more clearly established was the regulation of the proportion of the Orders as the essential knowledge that architects should possess. All of this changed with the radical writings of Claude Perrault in the late 17th c. Perrault's import is two-fold. First, he found that the proportions of the orders in ancient buildings did not correspond to the rules laid out by Vitruvius and, further, there was little consistency to the Orders, as presented by previous authors. This problem was longstanding though had never been systematically critiqued. Vitruvius had not presented sufficient detail or images of the Orders. Previous authors did not ever mimic each others proportions. Perrault, in response to his critique, proposed a system of "probable mean proportions," essentially averaging most but not all of the proportions of previous authors. He then invented a smaller unit of proportion, which had the advantage of basing the Orders on whole numbers. Next, Perrault proposed that there were in fact two types of beauty for architecture: positive and negative. *Positive Beauty* is based on "convincing reasons" such as "the richness of materials, size and magnificence of a building, precision and cleanliness of the execution and symmetry." Appreciation is, according to Perrault, universal. (*Ordonance:* 50) *Arbitrary Beauty* is "determined by our wish to give a definite proportion, shape or form to things that might well have a different form without being misshapen and that appear agreeable not by reasons within everyone's grasp, but merely by custom and the association the mind makes between two things of a different nature." (*Ordonance*: 51) It is within this second beauty that, for Perrault, the orders lay. Returning to the nature of the architect, Perrault stated: "it is evident that knowledge of the arbitrary beauties is the most proper way of forming what is called taste and that this knowledge alone distinguishes true architects from those who are not." One effect of this is that the architect may be understood as a gentleman of taste, and further, that the meaning of a

building may not be reconciliatory or self-evident, but rather found in one's own perception.

***Settecento* segueway**

The eighteenth century, and some would argue those that followed, inherited the issues raised by Perrault. During this time, the métier of the architect is still far from defined. Although architects and even patrons may have owned an edition of Vitruvius, Alberti, Palladio, and most likely Perrault, when matters concerning actual construction were discussed, very often the craftsmen building the work were still intuitively "right." As the century progressed, however, the dialectic between theory and practice begins to break down; or rather one could say that the two poles begin to merge into an architectural knowledge as applied theory. One realization of this shift is the publication of various instructive texts focused on the education of those wishing to make architecture.

The first text I will discuss is the *Architettura Civile* (1711) by Ferdinando Gali Bibiena. Bibiena and his brother are typically noted for introducing into architecture methods to construct two-point perspectives. *Architettura Civile* was published almost twenty years after the introduction of such methods and was wildly popular through 18th c. The text is important for this study as it introduces a new organization of material. Though the topics of the book are typical: geometry, the orders, building types, discussion of representation, various machines etc., the way one may read the book is quite novel. Bibiena is true to his extended title in that he provides "practical considerations." The first book begins with a series of instructions – how to construct various geometries and how to determine properties of such forms. Bibiena includes a translation of units of measurement between various cities and lists a series of issues to consider prior to construction. The following section deal with the orders and are much shorter. Bibiena summarizes and in some instances literally reprints the work of previous authors. The third part is on Perspective and is divided into definitions, warnings and then operations. The first operations offer a very strange way of constructing shapes in perspective that has to do with drawing curves in plan and elevation. The operations then build from more simple geometrical figures, and solids, to more complex column bases, spiral staircases, and vaults. The originality of the work is in the description and working out of a two-point perspective that is dependant upon plan and elevation and may be used to project an image of three dimensional space. More important for this study is that the book sets a precedent for the organization of future writings as follows:

Series of definitions and possibly warnings
Summaries of previous authors
Operations, instructions, or directions to be completed sequentially

Here the relationship between images and text is essential. In previous treatises, the text explained the image, now the image is used to check the work of a student making their own image.

Twenty years later, Bibiena reprinted and expanded the work. The title, however, changes to become Directions to young students in the art of civil architecture in the Academia Clementina. [*Direzioni a' giovani studenti, nel disegno dell'architettura civile, nell'Accademia Clementina dell'Instituto delle scienze*. (Bologna, 1731) This became the book used at the Academy.

By the mid part of the 18th c., various treatises begin to appear that follow this pattern. I will now discuss two. Bernardo Vittone (1702-1770) an architect from Turin, wrote two major books of Instruction (Istruzione). The first, *Various Instructions Concerning Civil Architecture* [*Istruzioni diverse concernenti l'Officio dell'Architetto Civile*] was dedicated to the Virgin Mary, the other, *Elementary Instructions to teach the Study of Civil Architecture to the Youth* [*Istruzione Elementari per indirizzio de'giovanni allo studio dell'Architettura Civile*] was dedicated to God. The text dedicated to the Virgin seems to be intended as a treatise, or at least for an audience that was actually making architecture. The topics deal with practical issues like measure of materials, construction of walls, openings, and parapets, the orders. The bulk of the text is devoted to Churches and the various smaller architectures (altar, tabernacle, pulpit, and baptismal font) within the ritual of the mass. There is a brief addendum concerning Theatre acoustics and sight lines. The other text, dedicated to God, is similar, yet quite distinct. Citing the difficulties faced by students attempting to understand the Elements of architecture, Vittone offers various axioms and problems for students to study and then complete. These include such things as: finding within two straight lines a third that is proportional, subtracting quantities, finding the area of a square, finding the area of an ellipse, etc…Here, Vittone lists a series of problems for the student to complete. The images, or answers, however are now at the back of the book. This becomes typical in other books of instruction. One, for example, by Domenico Cerato, does not include any images. The student was compelled to make their own book of solutions. The careful student would have discovered all of the answers in an earlier treatise.

Once the student has progressed through the first book on Geometry, they may continue on to the Second Book that describes the origin and history of architecture. Vittone offers a typical, and Italo-centric history. He first describes the origins of the primitive hut, then the musical scales and their accordance with the module of the five orders. The book is composed of a series of observations, though no problems to be solved. What is distinct about Vittone's text is that he introduces a modular grid that underlies each of the various parts in the design of the building. This grid, helpful for the student of architecture, may be used when adjusting the order's *carattere* (character) and also under the plan when discussing the distribution of a plan elements. This is the first time a grid is suggested as a guide in the planning of architecture. The grid, developed more famously twenty years later by JNL Durand becomes the basis of student design work at the Ecole des beaux Arts.

A few years after Vittone, Girolamo Masi, an Architect in Rome published his own Instructional text: the Theory and Practice of Civil Architecture for Youth, especially those of Rome. (1788) [*Teoria e pratica di architettura civile, per istruzione della gioventu specialmente romana*.] This is another book of instruction, yet there are no exercises or problems to be solved. In the introduction, Masi states that he has read many books in his desire to understand Architecture. However, he recognizes that for a young student of architecture, this task may be daunting. Therefore he has written this book. He does not presume to make a course of architecture; his intention is to only offer the youth a less difficult road to travel. What he ends up doing is more like an 18th c. studio companion. He explains that architecture is derived from making (a direct quote from Bibiena). It is composed of Theory and Practice. Theory is from the reason of everyone, which is carried

out in a work, and practice is the regular execution of the most perfect works. Both are essential for the architect.

The treatise is divided into four chapters. The first three follow the Vitruvian triad solidità, utilità, bellezza, and the final discusses the principles regarding Civil architecture. The chapter on Solidità discusses materials, foundations, structure of walls, mechanisms of vaults, origins of cracks in, and also ways of stabilizing and repairing old buildings. Utilità deals with distribution of parts – all parts: of rooms in buildings, of buildings in cities and of buildings on sites. Here he also shows a drawing of important churches in Europe, all drawn to the same scale and out of context. Bellezza, the topic of the third book, is good taste (buon gusto) and this according to Masi was perfected by the Greeks. He shows multiple images comparing Greek and Roman architecture. One of the more interesting aspects of the book is the appendix. It contains the following: a comparative index of measurements across Europe, a section that lists "practical notions of a civil architecture" This is a collection of material characteristics, methods of construction, tools of construction, that may guide the student and the architect when making a building. The third appendix provides legal guidance including setback requirements, rules regarding slavery, how buildings are passed on after an owner dies, ownership of common walls, and then a listing of various precedents. The final index is a twenty-page dictionary of architectural terms.

The previous books, I would argue, become more interesting when compared to the most widely published texts of the *Settecento*. The text wasn't really intended for use in an educational context when it was first published in the 17th c. Rather, the early editions of the *Manuale d'Architettura* by Giovanni Branca were quite small giving the impression that it could simply be carried in one's pocket. There are six sections the book. Book one is on Materials. Though materials are described in terms of architectural elements – as in a stonewall, or a wooden truss, and not on their own as in the inherent characteristics of stone or wood. Book two describes the orders verbally and pictorially, but no real guide as to how to make (either physically construct or draw them). Only the proportions are given. Geometric constructions are only given within the discussions of frontispieces or capitals. Book Three discusses openings and details in facades, vaults, stairs and the organization of rooms.There is a chart demonstrating the most comfortable rise/run relationships for stairs and the most correct proportions are given for openings. Materials are, however, irrelevant. Book 4 and 5 gives Mathematical procedures including multiplication tables, rules of division, subtraction, and also square roots. Book 6 Deals with geometric principles and focuses on the measure of solids. Books 4,5, and 6 are aimed at making estimation of material, time, and money, simpler. Similar to Masi, the information offered by Branca does not follow an order – you don't need to read chapter one before chapter six. Rather the chapters could act independently, and possibly fill in gaps in the knowledge of a craftsman/worker. Though the book acts as a manual in the late 17th c., by the end of the 18th c. the audience seems to have changed. The preface of the 1789 edition claims that it is "one of the most important books for the study of this art (architecture) that is able to be proposed to the youth". In fact the same edition was printed on blued pages. This probably refers to its somewhat novel status, certainly not something a craftsman would carry. If one could say that Architecture was raised from a Mechanical to a Liberal art with Vitruvius, after Masi and the reception of Branca's Manual, it has at least merged.

Conclusion

Through the Italian eighteenth century, the vast majority of architectural publication differed from the traditional treatises in that none offered original knowledge but rather a more syncretic approach that collapsed both theory and practice. The texts were written with a new audience in mind, typically the youth, who were intent on becoming an architect. The texts contained summations of previous treatises, practical guidance concerning issues of building, estimating, and law, as well as observations, demonstrations, and even exercises or instructions to work through and complete. Further, each offered a more "practical" guide to developing one's taste (gusto)—the defining characteristic of the worth of an architect. This codification of education-specific texts in lieu of traditional treatises lays the foundation for the establishment in the following century of the profession as defined by Carr-Saunders.