

(Possible) Pedagogies of the Architectural Imagination

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INTRODUCTION

There seems to be broad agreement in the architectural community that architectural education is in crisis. On the nature of that crisis, what should be done about it, and even whether it represents peril or salvation for architecture and architects, opinions vary widely. Such anxiety about the adequacy of our pedagogical practices is not new. Indeed, it seems to be an inherent part of architecture at least since Vitruvius opened his *Ten Books of Architecture* with a discussion of the topic of the education of the architect some two millennia ago. The preoccupation seems to derive from the inherent didacticism of an endeavor that has traditionally seen itself as the *arché* (apex and origin) of the arts. This might be a comfortable perch, if not for the indeterminate status of architecture, which has been described variously as an art, a craft, a discipline, profession, and an industry.

Indeterminacy arising from a split or even multiple personality has always characterized architecture (witness the conceptual breakdown of the body of architectural knowledge into two, three and more categories by authors of treatises since Vitruvius.) The boundaries now dividing areas of architectural knowledge, however, are based on professional categories that emerged in Europe over the course of the eighteenth century. In the following discussion I shall review a series of experiments related to architectural education that occurred at the margins of, and in partial resistance to, the European drive toward systematization known as the Enlightenment.

GIAMBATTISTA VICO'S WRITING ON EDUCATION

Between 1708 and 1709, the Neapolitan jurist Giambattista Vico delivered and published his *De Nostri Temporis Studiorum Ratione* (On the Study Methods of Our Time), the last of seven inaugural orations presented at the University of Naples, where he taught.¹ In this text, Vico compares the study methods of classical antiquity with those of his own time, lays the groundwork for his equation of *verum et factum* (the true thing and the made thing), and launches a sharp critique of Cartesianism, while recognizing many advantages in Descartes's method. Descartes had sought to reform philosophy by fashioning it into a rigidly regulated activity. Vico's later statement that "the true and the made are convertible" (*verum et factum convertuntur*) is both a development and a critique of Descartes's linking of truth and evidence, upon which much of subsequent science has been built.

Within Vico's anti-Cartesian polemic are several points of direct relevance to architectural education. These include, according to Elio Gianurco, his "endeavor to demonstrate the superiority of 'synthetic' or Euclidian geometry over Cartesian, analytical geometry;" his declaration of the "inadmissibility of the reduction of physics to mathematics;" his "emphasis on man as an integrality (not sheer rationality, not merely intellect, but also fantasy, passion,

emotion); and his insistence on the historical and social dimension."²

In his *De Nostri*, Vico stresses early education based on invention and induction to strengthen the imagination and memory, allowing for instruction in "criticism" (Cartesian logic) only later. Euclidean synthetic geometry, he argues, should be taught before and not after Descartes' analytic geometry, lest the natural ability to form images be destroyed.³ He cautions against excessive attention being given to the natural sciences at the expense of ethics. He notes that "human events are dominated by Chance and Choice," and argues that we must gauge human affairs by the "pliant Lesbic rule, which does not conform bodies to itself, but adjusts itself to their contours" rather than the "inflexible standard of abstract right."⁴

De Nostri was well known in the Veneto, where Vico's ideas were discussed in the *Giornale de' letterati d'Italia*, a publication sustained by a group that included the Veronese antiquarian Scipione Maffei (1675-1755).⁵ An extract of *De Nostri* appeared in the first volume of the newly-founded journal in 1710, and the text subsequently became the subject of an extended discussion in later issues. In the course of this discussion, Vico elegantly expressed the pedagogical implications of his principle of *verum ipsum factum*:

Do you wish to teach me a scientific truth? Assign to me the reason that is entirely contained within me, so that I may understand in my way a term, may establish a relationship that I institute between two or more abstract ideas; ideas which, as a consequence, are contained within me. Let us start at a feigned indivisible, let us stop at an imagined infinite, and you will be able to tell me, "Give me a demonstration of the theorem that has been proposed," which is equivalent to saying: Create the truth that you wish to cognize; and I, in cognizing the truth that you have proposed to me, will "make" it in such a way that there will be no possibility of my doubting it, since I am the very one who has produced it.⁶

This statement implies that the things students make (hence invent and therefore discover) themselves are the ones they will best understand and remember. It has direct application to the study of architecture, in which abstract mathematical and scientific ideas coexist with the physical making of buildings and their representations.

SCIPIONE MAFFEI'S PROPOSALS FOR THE UNIVERSITY OF PADUA

In 1713, just two years after the discussion of *De Nostri* in the Veneto, Scipione Maffei delivered his own proposal for educational reform at the University of Padua, his *Parere intorno al sistema dell'Università di Padova*. The dates and the venue of the discussion suggest that Vico's text influenced Maffei's proposals.

While Vico's proposals are theoretical, aimed at framing an approach to education with broad applications, Maffei's *Parere* concerns a local situation. First printed in 1715, it focuses on the exposure and remedy of defects of the venerable university. Maffei begins with an explanation of his desire to renew the university, which had lost both prestige and students over the years. He attributes these losses to imbalances and redundancy in the structure of the university: too many *cattedre* (academic chairs associated with specific disciplines) in certain areas and too few in others. His primary complaint is that, particularly in the sciences, the study of Aristotle dominates teaching to the exclusion of other authors. In his discussion of physics, he argues that students should have an "honest liberty of wits"; they should put aside the limitations of Aristotle and become familiar with the ideas of Descartes without "contenting themselves" within his "system."⁷ This contrast of honesty, freedom, and wit (*ingegno*) with the Cartesian system is consistent with Vico's approach to education.

An important undercurrent of Maffei's proposals is the notion that university instruction should shed the prejudices of the past. At the same time, he argues for the utility of university instruction. Throughout his *Parere*, Maffei proposes expansion of teaching of useful subjects and reduction of what he views as scholastic and pedantic studies. Rather than take one side in the contrast of Ancients versus Moderns, Maffei demands that both receive proper attention so that the more recent discoveries and theories can be understood in light of their origins. In every area of the university, he advocates a broader range of texts to be studied and a comparative, historically conscious approach: special attention should be paid to controversies, particularly in ecclesiastical areas."

It is in the teaching of mathematics that Maffei argues for the greatest expansion of the *cattedre*. He proposes studies in "speculative mathematics," including geometry, analysis, differential calculus, geography, nautical studies, architecture, fortifications, mechanics, and perspective. He then discusses architecture and astronomy in greater detail, proposing that an astronomical observatory be established in Padua. The linkage of architecture and astronomy would occur decades later in Padua, where students of astronomy and architecture would occupy adjacent spaces in the complex of buildings housing the new observatory.

LODOLI'S SCHOOLS OF SYSTEM AND CONVERSATION

Maffei's educational ideas, as well as his architectural ideas, had a profound effect on an eccentric Venetian friar, Carlo Lodoli. Lodoli was not a practicing architect. He left no treatise, no drawings, and no known body of architectural work except for some alterations to the monastery of San Francesco alle Vigne in Venice, where he lived. He was, however, a compelling teacher and an influential figure in Venice, where his conversations, ostensibly about architecture, functioned as surrogate political discourse.

Maffei would later take credit for having discovered and groomed Lodoli, and he was certainly one of Lodoli's most important supporters. During his involvement with the university in Turin in the years 1719-20, Maffei tried and failed to secure a teaching position there for Lodoli. Wishing, on the basis of their mutual affection, to keep Lodoli nearby, Maffei tried again in 1720 to find Lodoli a position at the University of Padua. Maffei eventually abandoned these attempts and helped instead to establish Lodoli as a tutor in Venice, unaffiliated with any university."

Lodoli's schools in Venice began when the Soranzo family asked Maffei to suggest a way that the young Carletto Soranzo could learn "that which was not taught in the *collegi*, at least in those days, and which was more necessary and useful in the ways of the world." Maffei arranged for Lodoli to teach Carletto, and later Lodoli opened his lessons to other youths. Memmo's account goes on to say that Lodoli took into account what the youth should learn "more easily

to convert his studies into substance."¹⁰ Lodoli's program thus echoes both Maffei's call for the utility of education and Vico's equation of *verum* *er factum*.

Where Maffei, exerting his influence as an historian, critic, and collector, left behind publications and institutions, Lodoli's primary activity was conversation, of which only the recollections of others remain. His private school for young Venetian noblemen was only part of a broader didactic mission expressed in conversations that he illustrated with anecdotes and animated gestures. Lodoli's teaching was thus not professorial, nor was his conception of architecture professional. Learning about architecture was a way of preparing for a life of varied activities rather than a strict professional formation. Lodoli taught his students to view architecture critically, and to consider the implications of what was "put into representation."

According to Memmo's account in the *Elementi*, Lodoli conducted two schools: the *scuola di sistema* and the *scuola di conversazione*. The *scuola di sistema* was a place for the offspring of the nobility to learn things useful to civic life. Lodoli's curriculum began with an examination of books dealing with moral practice and good government, so that "before anything else they would fall in love with those virtues which form the heart, and which would make them best disposed to be consciously good for themselves, for others, and for the *patria*."¹¹

The *scuola di conversazione*, on the other hand, was open to people from all walks of life, and also open to the city. Lodoli would take his students to observe various things in the city, to inspire them toward "praiseworthy occupations and good taste." In this way, Lodoli reinforced the study of moral practice and good government with examples of the concrete; by this means, his students could intervene in the moral and governmental aspects of the Venetian state. Rather than texts, the museums and workshops of the city served as the basis for the lessons in the *scuola di conversazione*. Lodoli's teaching about art and architecture in relation to political practice was consistent with Vico's ideas about the methods of judgment appropriate to the sphere of practical wisdom."

The distinction between the two *scuole* is reinforced by the terms used to describe them. *Sistema*, from the Greek *ro sustema*, connotes a whole compounded of parts, a composition, an organized government, or a constitution. In eighteenth century Italian, it could mean scientific method, but it also referred to the order of the universe (world system) and of musical notes (harmonic system)." System could be understood as it is now often used colloquially in English, to describe a political structure or something assumed to be sufficiently static and predictable to be described as a compound or composition.

Conversazione, from the Latin *conversatio*, has to do with "frequent use" and "dealings with persons." *Conversatio*, which describes an activity based on movement and negotiation, is the antidote to the static system. In the eighteenth century there were two principal ways of understanding the word. The first saw *conversazione* as related to the Greek word *bios* (life, manner of life, or livelihood), stressing a moral dimension of comportment. The second related it to *diatriba* (literally "through rubbing": a way of spending time, hence a pass-time, an amusement or a waste of time, but also serious employment, study and a way of life, compared with *dialogos* ("through the word": dialogue or conversation as currently understood). This definition equates *praticare* (practice, performance, association or making) with *conversazione*. It further allows that *conversazione* could refer to a group of people united in conversation, the definition that would allow this word to be used to describe the activity of the eighteenth-century salons.

In the *Elementi*, Memmo states that Lodoli would never accept the word "system" with respect to architectural principles because he believed "there should not be hypotheses in scientific demonstrations." On the surface, he appears to object to the lack of certainty inherent in a system built upon hypotheses. Another reading of his enigmatically stated objection is also possible and suggests that the

idea of system is in fact too static to account for architectural principles, which depend upon multiple and often-changing criteria. This reading would imply that Lodoli shared Vico's concerns about the stifling effect of the Cartesian critical method, with which he associated the notion of system, while he found certain aspects of that same method useful. Therefore, he proposed two alternative approaches to architectural and political education: the "geometric method" of demonstration and the "flexible rule" of *conversatio*.

Lodoli was not teaching his students to become architects, but to understand the structures of society through the study of architecture as a human *factum*. Apparently none of his disciples went on to become professional architects, but many, including Andrea Memmo and Angelo Querini, held government posts, as would have been expected of these sons of the nobility. In these positions, they exercised an influence on public and private architectural projects.

DOMENICO CERATO IN PADUA

In the decades after Lodoli's death, Memmo, Querini and other followers of Lodoli lived and worked in Padua. There they found an important collaborator in the architect Domenico Cerato. Cerato's arrival in Padua was an indirect result of Maffei's proposed reforms to the university in that he followed his lifelong companion, the astronomer Giuseppe Toaldo, to join him in establishing the observatory for which Maffei had called. In connection with the observatory, known locally as the *Specola*, Cerato started a school of architecture.

The *Specola* project was the justification for the creation of Cerato's school and also became the site of the school. In his 1785 *Memorie degli architetti antichi e moderni*, architect and historian Francesco Milizia aptly used the term *innestare* (grafting) to describe Cerato's intervention. As in many of his other public projects, Cerato's work at the *Specola* was neither a renovation, strictly speaking, nor new construction. His greatest talent was in the transformation of an existing building into a functionally new one while respecting the character of the original, intervening without mimicry.¹⁴

The drawings executed by Cerato and his students for the *Specola* project indicate a careful and well-executed transformation. Milizia conveys the complexity of Cerato's task by noting that the memory of the cruel tyrant Ezzelino, who had occupied the tower centuries before, had left it with a taint that had not faded with the centuries. Cerato not only had to find a way to house the most advanced scientific equipment then known in a crumbling ancient structure, but also, in a sense, to cure the building by correcting its image along with its functional and structural problems.

In a letter to the Venetian overseers of the University of Padua, the *Riformatori allo Studio di Padova*, Cerato, discussing another building, outlines a set of priorities that are applicable to all his public projects: "I have taken care to distribute all the parts... with the greatest economy, not omitting however the most important part of a building, that is solidity, and preserving that decency and decorum that a public building requires."¹⁵ The decency and decorum to which Cerato refers are terms meant to assure the *Riformatori* that his work will comply in appearance with their expectations, while his mention of solidity and economy implies that the building will make good use of public funds. Cerato's statement responds to the concerns of the *Riformatori* without making any outright theoretical claims. Nevertheless, his buildings and written work taken together demonstrate that he had a theoretical practice of representing the function that the building and its parts are to fulfill. This theoretical practice was not far from the largely unpracticed architectural theories of Carlo Lodoli a generation earlier.

Milizia does not credit Cerato with conceiving grand projects, but rather with drawing, directing, and supervising them. Most of his important projects were carried out in collaboration with others: women and men who studied and practiced architecture as part of a

life of varied public and private activities. Cerato often provided drawings and directed the work to realize the ideas of the person who sponsored the project.

There is little indication that Cerato received any formal architectural training, and it is likely that he was largely self-taught and gained his knowledge from the same combination of hands-on experience, drawing practice, and observation of examples that he later sought to impart to his own students. Certainly, his friendship with Giuseppe Toaldo would have acquainted him with principles of mathematics of relevance to architecture. Whatever the circumstances by which he developed his own working theory, he would find sympathetic collaborators among the followers of Lodoli, most notably Angelo Querini and Andrea Memmo.

Cerato began his free lessons for artisans because he needed workers with technical and theoretical rather than strictly practical preparation.¹⁶ The idea of forming the school developed out of the work on the *Specola*. Cerato needed craftsmen who not only could work construction materials but who also had a sense of the totality of the building. The preparation they had brought with them was not sufficient for the demands Cerato placed on them in their work on the *Specola*.

In 1769 the masons', woodworkers', and stonemasons' corporations petitioned the *Podestà* of Padua to provide them a practical teacher to impart the "solid principles of architecture." Lessons began on August 4, 1771, in Cerato's home adjoining the *Specola*. There were seventy students from the building trade corporations who had made the initial request. Soon surveyors and metalsmiths joined as well, followed by members of the privileged classes. The ages of the students ranged from their late teens to mid-fifties, and they brought with them a variety of experience."

From the beginning of November to the end of August, Cerato's school met mornings and afternoons on holidays, including Saturdays and Sundays, when the students were not practicing their trades. The sound of the bell from the nearby cathedral signaled the start of classes. Every year judges awarded a prize for the best work in an assigned competition project. In keeping with Cerato's emphasis on the economic and operational aspects of construction, students were required to submit a complete budget for their design, which showed the types and quantities of the materials and their costs.

Like Lodoli in Venice a generation earlier, Cerato refused payment for his teaching. The activity was nevertheless not without profit for Cerato, who had his students execute drawings connected with his projects, both to research previous examples of similar building types and to promote his own work with clients and with the *Riformatori*.

In the face of increased departmentalization of the art of building, Cerato's approach reclaimed the idea of the architect as a practitioner involved in all aspects of assembling a building. Cerato put his ideas into effect primarily through action: building and teaching building skills. He wrote no treatise; he preferred to put certain of his ideas into one practical manual, his *Nuovo metodo*, a book specifically directed at the students of his own school.

CERATO'S NUOVO METODO

Cerato's "New Method" of teaching drawing is based on geometric demonstration. It is an incremental process that begins with small moves, and gradually works up to more complex tasks. This method bears some resemblance to the method of Plato's *Meno* insofar as it involves constructing understanding incrementally, so that the student arrives at results that he would not have been able to anticipate."¹⁷ Cerato's stated aim, however, was not Platonic. He intended to provide his students with a set of skills and did not claim they were recalling what they drew. His approach to education and design were quite similar, as he sought to graft a comprehensive understanding of architecture upon the material understanding his students brought with them to the school, to transform and redirect their prior knowledge.

The first few operations of Cerato's "Practical Geometry" (*Geometria pratica*) follow the format of Euclid's *Elements*, but the methods quickly diverge. Euclid sets up a series of definitions that rely on conceptual distinctions between point, line, and plane. Each of these exists beyond any visual representation. Each is only approximated or "imagined" in the diagram scratched or drawn on a surface. Cerato, on the other hand, asks the student to make a mark on the page and then to recognize that visible mark itself as point, line, or plane.

Cerato first asks his student to prepare the tools for drawing and the page. The drawing tools consist of a pen, a drawing lead, a compass, a pair of rulers, and a square made of walnut or other hardwood. Cerato explains how to bevel one side of the drawing edge of the square and a ruler so that when they are used with the pen, the ink does not bleed on the page. He asks the student to fold the paper into a booklet that will contain the drawings generated by the series of exercises that constitute the rest of the *Nuovo metodo*. The student makes equal divisions on the rulers that will serve as guides along the horizontal and vertical axes of the page and then numbers these divisions. Locations along the vertical axis are called level (*livello*), and those along the horizontal axis, plumb (*piombo*, after the lead of a plumb-bob).

The first instruction is to make a mark at the intersection of level one and plumb one. Paraphrasing Euclid, Cerato explains that this is called a point and that "no part or portion" of it will be considered. The reader next makes a mark, which will be considered only for its length and not for its width or depth, from one point to another, and learns that this is a line. There are many kinds of lines, Cerato says, because the point is susceptible to so many different *moti* (movements or impulses). From here the student proceeds through the geometric figures and various constructions: each time he learns the name of what has been drawn. Then the student draws the architectural orders, and finally plans, sections and elevations.

Every step depends on the accumulation of all prior steps. Aside from the diagram at the beginning, the book contains no illustrations of any kind. The method depends on the use of verbal description to assist the students in locating their marks within the grid on the page. It also relies on a growing vocabulary of geometric operations. The student is not copying an image, but rather drawing a relation that has been described to him in words and that he now makes visible on the page through the physical work of his own hands moving the drawing instrument.

On the title page of his book, Cerato declares that his new method is for drawing the five orders of architecture according to the rules of Palladio and Scamozzi. This title implies that while the rules of the architectural orders are not new (but can continue in the tradition of the great Venetian architects), the method of drawing is. In order to demonstrate his new way of drawing, Cerato must concentrate on the steps by which someone may acquire the necessary skills. Cerato's project includes a way of seeing and making architecture in the revelation of the image as if from within the page, as opposed to the repetition of a fully formed image in the form of an example. In this way, Cerato's method has repercussions beyond the act of drawing itself, affecting architectural pedagogy and practice.

For Cerato, the first statement, the basis upon which all the rest will be built, is his definition of geometry. He defines geometry as the measure of the earth and then specifies that for the purposes of his text it is the science of "continuous quantity." The figures of geometry are formed with points and lines, which are made with pencil and pen. The entire book proceeds from the premise that things can be made with pencil and pen. While he does allude to Euclid's more restrictive definition of point and line, he avoids dwelling in the realm of ideas, preferring to give his reader something tangible with which to work. On the other hand, he does not speak at any length about how to make a building out of stone. He shows how to make a drawing of a building, not the building itself.

That Cerato's text contains no illustrations beyond the frontis-

piece does not alone distinguish it from other architectural texts. There are many instances of earlier texts with few or no illustrations, and some contemporary theoretical texts as well, including Memmo's and Antoine Laugier's. It is Cerato's way of forcing the reader to construct the illustrations that sets his text apart. The text cannot be read through without drawing the images described, as they arise from the page through a series of cumulative steps and statements, each of which alone is of little meaning or interest.

Cerato took on a novel problem in architectural education when he sought to impart a theoretical understanding of architecture to tradesmen. He promised to make his students proficient in drawing after ten months of intense study, and by all accounts he was successful. Although he complemented his drawing lessons with readings from Vitruvius, his approach to architectural education required at least partial abandonment of the Vitruvian ideal of the architect as a broadly informed and literate person.

Many of Cerato's students arrived at the school unable to read. Cerato's method probably relied heavily on demonstrations accompanied by verbal instructions. It is possible that instructors in Cerato's school actually read the instructions from his book aloud in class. Yet the school succeeded in exploiting the practical knowledge that most of the students brought with them from their training in the building trades. In this way the knowledge gained through Cerato's method substituted for the academic sophistication that would have been expected in a school based on a more elite identification of the architect.

While Cerato was most certainly touched by the political ferment of his time, he wrote a book that never alludes to issues outside the problem of drawing. In contrast, Lodoli's legacy, as we know it from Memmo's book, is an intricate layering of allegory and implications: a building is never just a building. Memmo's book is directed at an elite reader who can sift through the contradictions and inconsistencies to glean a message that is more than architectural. Cerato, on the other hand, dedicated himself to a more direct practice: making "economical, solid, decent, decorous" buildings, and providing his students with the skills to carry on after him.

CONCLUSION

Architectural education is essentially political. This is true for both (ever-polarized) ends of the spectrum that runs from the applied model of professional preparation to the scholarly model of the humanistic discipline. The design studio, the centerpiece of current architectural education, is built upon conversation: among people, concerning things, in a place. For all the advances that have occurred in communication and information technologies, this remains, as it was in Lodoli's time, a basic characteristic of design education.

Architectural practice is also political. Architects almost always design for people in places. Even a "placeless" project, say for manufactured housing, cannot escape considerations of place: how the house touches or avoids the ground, where people enter, atmospheric conditions, etc. Practitioners and teachers alike, however, are usually quite unaware of the political context in which they and their students are working and the political content of the work itself.

Finally, architecture itself has always had a didactic mission, sometimes to train and sometimes to persuade. Architecture educates us about our place in the world by rendering our physical surroundings both problematic and (in the best of cases) intensely engaging. Architecture does not, however, always carry the burden of political advocacy wisely; it may become enthralled by promises of global solutions and exalted by the thought of being at the apex of the arts.

In its anti-systematic stance, Lodoli's architectural teaching and theories resisted habitual repetition and easy certainties. Doubt and difficulty were essential parts of Lodolian architectural politics. Lodoli's followers were motivated as much by despair as by any brave hope. They learned that their direct political interventions

were not only futile, but occasionally dangerous, and embraced architecture as an alternative means of political practice.

Cerato's school was directed at a very different group of students, who anticipated quite different careers. Although less explicitly political than Lodoli, Cerato upset the existing hierarchies of entitlement by providing an alternate means of acquiring an architectural education without regard to class. Directed toward supposedly illiterate students lacking substantial formal education, his method can be understood as a more visual interpretation of Lodoli's interest in analogy.

In its verbal form, analogy occurs when shorter, smaller, simpler statement substitutes for one that is too large or complex to grasp all at once. This operation requires the reader of the statement to move nimbly through textual layers and constantly compare proportional relationships. A visual version of this is the basis of architectural practice and pedagogy: the mental/tactile ability to imagine yet-unbuilt spaces from words and lines. This ability requires constant movement from words, to drawing, to model to built work, and back again, simultaneously comprehending layers of structural, functional, and aesthetic concerns. Cerato's method exercises this ability of the imagination.

In one of his last essays, Italo Calvino proposed a few qualities that, he imagined, might carry us toward the next millennium. Calvino calls one of these qualities "visibility:"

If I have included visibility in my list of values to be saved, it is to give warning of the danger we run in losing a basic human faculty: the power of bringing visions into focus with our eyes shut, of bringing forth forms and colors from the lines of black letters on a white page, and in fact of *thinking* in terms of images. I have in mind some possible pedagogy of the imagination that would accustom us to control our own inner vision without suffocating it or letting it fall, on the other hand, into confused ephemeral daydreams, but would enable the images to crystallize into a well-defined, memorable, and self-sufficient form, the *icastic* form.¹⁹

The marginal educational experiments begun by Lodoli and Cerato have not exhausted their possibilities. I believe they are indications toward the formation of such a "pedagogy of the imagination."

NOTES

- ¹ Giambattista Vico, *On the Study Methods of Our Time*, trans. and intro. by Elio Gianturco (Ithaca and London: Cornell University Press, 1990).
- ² *Ibid.*, p. xxviii (translator's introduction).
- ³ *Ibid.*, p. 19.
- ⁴ *Ibid.*, pp. 33-34.
- ⁵ Mario Agrimi, "Presenza di Vico nella Cultura Veneziana," in *Vico e Venezia*. ed. Cesare de Michelis and Gilberto Pizzamiglio. (Florence: Olschki, 1982). See also Marino Berengo, *Giornali veneziani del Settecento* (Milan: 1962), pp. 3-15.
- ⁶ *Giornale dei letterati d'Italia*, Article 10, vol. 8. (Venice, 1711).
- ⁷ B. Brugi, "Un parere di Scipione Maffei intorno allo Studio di Padova sui principi del Settecento. Edizione del testo originale con introduzione e note," in *Atti del R. Istituto Veneto di scienze, lettere ed arti*. no. 69 (1909-10): 575-91. The citation is from Maffei's text, p. 582.
- ⁸ Maffei in Brugi, p. 584.
- ⁹ Scipione Maffei, letter to Ludovico Antonio Muratori, 27 August 1719, in *Epistolario* (Milan 1955), p. 313.
- ¹⁰ Andrea Memmo, *Elementi d'architettura lodoliana ossia l'arte del fabbricare con solidità scientifica e con eleganza non capricciosa*. 2 vol. (Zara: Battara, 1833-34); reprint, (Milan: Mazzotta, 1973). pp. 49-50.
- ¹¹ *Ibid.*

- ¹² Vico, *On the Study Methods of Our Time*, trans. Gianturco, p. 34.
- ¹³ *Vocabolario degli accademici della crusca* (Florence: Manni, 1735).
- ¹⁴ In this respect, as in his interest in architectural details, Cerato's manner of working anticipated the work of Carlo Scarpa in projects such as the Castelvecchio museum in Verona and the Querini-Stampalia in Venice.
- ¹⁵ G. Passadore, "D. Cerato architetto a Padova," *Bollettino riel centro di studio A. Palladio*, 5 (1963): 323 (citing a letter in Padua's Archivio Antico del Bb).
- ¹⁶ E. Motterle, "Domenico Cerato" (unpublished Ph.D. dissertation, University of Padua, 1959-60).
- ¹⁷ Marco Frascari, "Sortes Architectii in the 18th c. Veneto" (unpublished Ph.D. dissertation, University of Pennsylvania, 1981).
- ¹⁸ *Ibid.* For further information on Cerato, see M. Zanazzo in "Odeo Olimpico," 4 (1963): 83-92; and G. Passadore "D. Cerato architetto a Padova," in *Bollettino del Centro di Studi "A Palladio"* 5 (1963): 318-329.
- ¹⁹ Italo Calvino, *Six Memos for the Nest Millennium* (Cambridge, Mass.: Harvard University Press, 1988), p. 92.

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