

A Formal Analysis of THE ITALIAN FACADE

■ By ALAN TREGEBOV

Au cours de l'automne 1983, un groupe d'étudiants de l'Université de Toronto à entrepris à Florence l'analyse des façades de différents bâtiments sous quatre aspects majeurs: l'étude des éléments qui composent la façade; la relation des pleins et des vides et le jeu de la lumière; l'étude des proportions; et l'étude de l'expression figurative de la façade.

"The plan proceeds from within to without; the exterior is the result of an interior."¹

"The various styles...are to architecture what a feather is on a woman's head; it is sometimes pretty, though not always, and never anything more."²

It wasn't long ago that one never spoke of facades—one elevated the plan. Architects and critics of architecture might allude to the significance of the building face but serious study of the facade was considered anathema.

It seems that the reluctance to discuss facade design was tied to Le Corbusier's warnings about superficial stylistic manipulations; one must avoid any reference to style. Bruno Zevi sets out that any manipulation of the elements of a facade for visual or aesthetic intent, the regulating lines of Le Corbusier included, is contrary to the True Spirit of modernism.³

The pre-modernist concern for facade, the frontal plane street, and the concept of the city as continuous street lines was challenged by the Modern revolution.⁴ As soon as one pulls individual buildings from the concept of the street as the organizer to an organizing system based on other criteria, the primary external understanding of such buildings is no longer based on the concept of facade.

Once we find ourselves moving back to the values of the traditional European city, to the qualities of the street and to the importance of the walls of urban and public space, we find also that we can depend no longer on the three dimensional modelling of modern formalism nor can we depend on the simplicity, though it be elegant, of the curtain wall or its reductivist equivalent. Mass and volume alone, even if contextually based, do not necessarily guarantee the desired quality of street architecture.

Regardless of whether one starts by requiring a frontal plane for the urban space, or from internal resolution of the plan, the resultant facade has several distinct roles to play. There are several forces acting on this plane—this mediating device—including the establishment of the appropriate image for the institution, support of the public space, identification of the nature of the building, creation of the entry, provi-

sion and control of natural light and views for the architectural space behind the wall, provision for private external spaces, as well as the essential control of environmental elements.

In his discussion of "ducks" or decorated sheds, Robert Venturi has characterized the most basic three-dimensional manipulation and aesthetic devices used to create the primary statement of image.⁵ One almost *has* to refer to Venturi's discussion before dealing with the relatively subtle manipulations of the elements of an established architectural language. There is, especially here in North America, the potent possibility of manipulating the entire external form of the building to create symbolic, anthropomorphic, zoomorphic (the literal duck) or other direct representational images with the building. Venturi makes the point that one is creating "ducks" with modern architecture whenever one avoids ornament, limiting the architecture to three-dimensional sculpted form. This in lieu of the European tradition of using somewhat abstract but historically established architectural forms. The following discussion is based on the major western tradition of working within the frameworks of the established and self-referential languages of architecture (decorating the proverbial shed).

That an independent architectural language can exist and that it can draw from outside genres yet remain independent is critical to this thesis. When we look at studies of the classical language (the most highly developed self-referential language), we can see many attempts to construct functional rationales for the elements, myths of primitive sources, and ties to "higher" philosophical treatises to prove the value of the language.⁶ Yet it would seem that once a language (especially a grammatically and syntactically rich and complex one) has been apart of people's lives for many generations, it has surely acquired significance and meaning! Regardless of the existence or non-existence of the primitive doric hut, the significance of classical orders on a building is clearly understood by the general population. Meaning is immediately transferred through the use of this language.

The classical has been used to relate Christianity to the power of the Roman Empire and Greek philosophy; it has been used to give the appearance of old established authority to a new economic or military power; it has been used to create an image of historical presence for a new judicial or political system. These sorts of meanings conveyed by the form of a building or the elaboration of the frontal plane of a building have been well established. But to stop here would not permit us to benefit from architecture as a fine art—an intellectual pursuit where the manner of expression is part of the meaning conveyed.

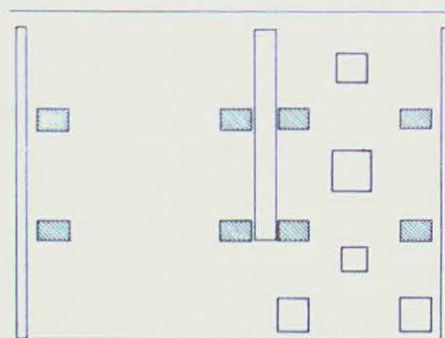
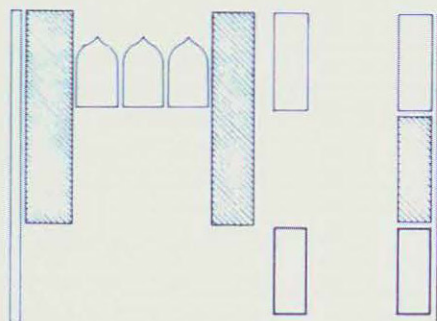
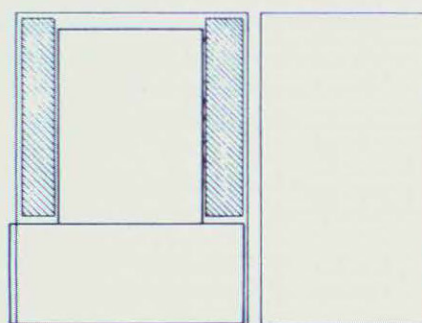
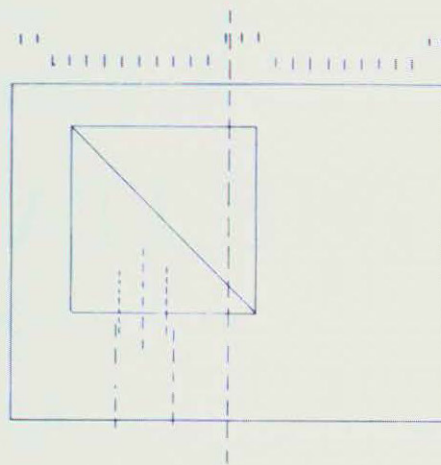
A discussion of painting, limited only to the socio-economic role of pictures, could not take us very far into an appreciation of the individual artist's perspective, understanding, or experience. It would not help us understand why we are moved more strongly by one painting than another on the same subject. One must look at the subtle formal investigations of the artist (painter, sculptor, architect, or other) to see how this person could communicate their understanding, and to understand how our lives are enriched by the work.

If we consider a building one of the characters of the city landscape, a character who outlives its creators and perhaps many other generations, then we might consider that its facade, the public face, addresses the other inhabitants of the city. Immediately the facade begins to identify the building. We can categorize it as part of a vernacular tradition, as a typical piece of fabric, or perhaps a unique element or firm classical memory of antiquity. Is it playful, inviting, imposing, or perhaps withdrawn and inward-looking? The character of the facade may start out as a statement of image for the original institution, but over time, as families and institutions change, the building remains as both a memory of a previous culture or institution as a living player.

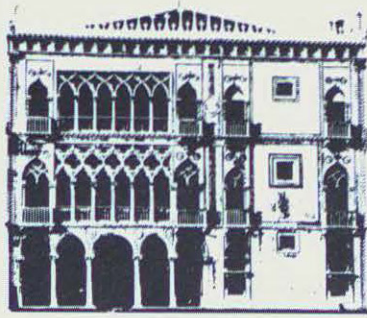
These meanings so far have been conveyed by a complex set of variables relating to the nature, material, and dimension of the solid wall and to the nature, size, and location of the openings in the wall. These may combine to provide a known historically-established style or perhaps a personal style. There will be a set of cultural values assigned to the style as well as to the material used to create the facade. There are values attached to the materials, their state (polished or rough) and to the representation of one material by another. This common occurrence—paint representing marble, stucco for stone, plastic laminates for wood (and everything else)—strongly suggests the long-established traditional importance of the material's nature.

We are able to look beyond primary readings which tell us of the overall character of the piece of architecture and look to secondary compositional moves. The nature of the component parts and their position relative to each other and to the facade as a whole have to be examined to understand how the primary reading was attained. By examining a few selected facades from several different times and cities, I would like to highlight several common compositional principles available to the architect.⁷ The shift from general intention to specific example will, I hope, substantiate the hard-to-describe secondary compositional ideas that have created the primary characters and identities previously described.

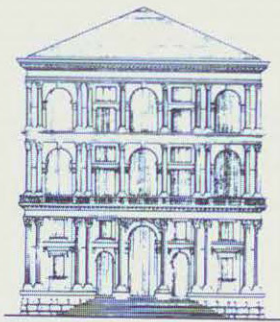
The grouping of like elements or perhaps the isolation of an element reflects on the architect's statement on the complexity or unity of the plan. Are certain pieces identifiable as unique elements (i.e. primary rooms with a public role) or is the building masked in a continuous pattern? The existence of a single as opposed to multiple rhythmic structure established quite a different meaning. We might look at the Ca d'oro and the Palazzo Grimani, Venetian palaces of similar program and context, constructed of similar materials, and isolate the principles of ordering or grouping elements of the facade. The facade of the Ca d'oro is characterized by local symmetrical groupings of openings. These may be understood at times to share common elements; this overlap adds both complexity to the facade as well as reinforcing the unity in a piece that could very easily appear to fracture. This facade has two major groupings on the right and left, but has a subtle centralizing and ordering cornice structure that does not align with either major group—a separate compositional



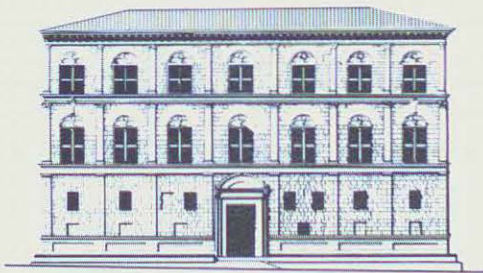
CA' D'ORO Venice



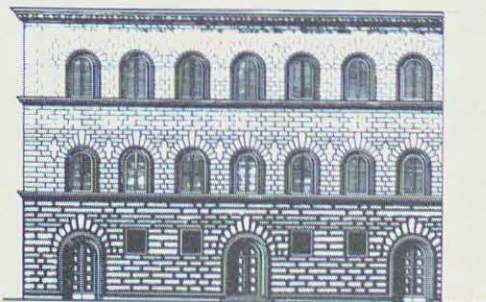
CA' D'ORO



PALAZZO GRIMANI *Michele Sanmichelli, 1556*



PALAZZO PICCOLOMINI *Bernardo Rossellino 1460-1463*



PALAZZO GONDI *Giuliano da Sangallo 1490-1494*

device to unify and point towards the centre of the building as a whole. Within the order of the primary groups there exist several minor variations to the individual windows; they may be symmetrically balanced overall but unique in their detail.

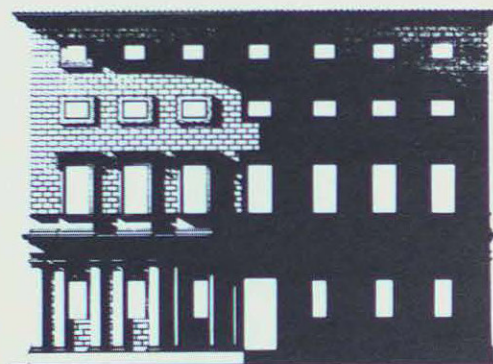
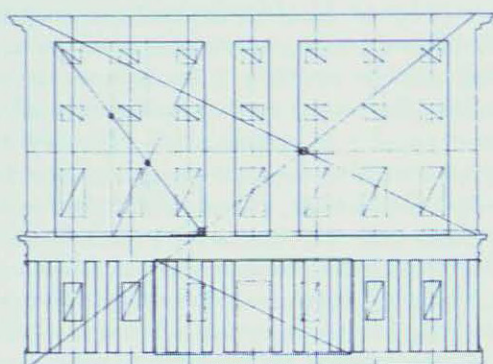
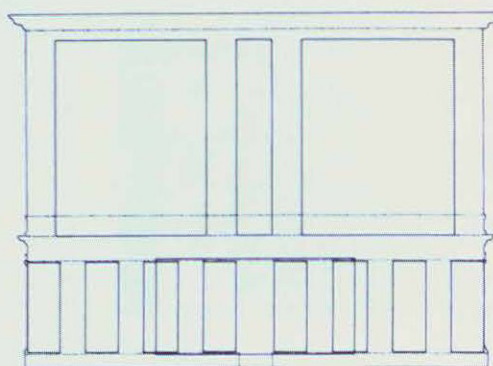
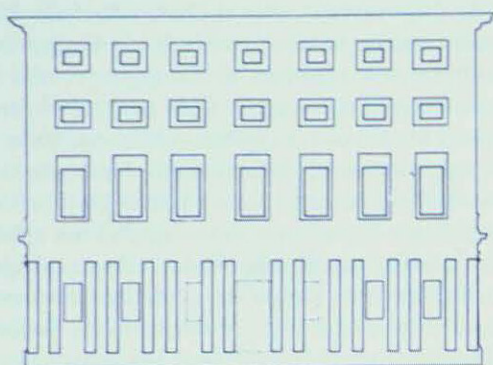
The Palazzo Grimani of the next century has only one major ordering symmetry with several symmetrical sub-groups. The surface richness, while different from the Ca d'oro, continuously reinforces the centrality and the harmony as opposed to the component parts. The wall, the basic enclosing plane, is almost hidden behind the applied elements and has a background role. The Ca d'oro brings out the idea of the wall itself as one of the primary elements; the Palazzo Grimani uses it as a foil for the classical orders.

If we abstract the facade into a primary plane, the ground zero, on which pieces are added or into which openings are cut, we are able to clarify the elements that give identifiable character to the building. Looking solely at the relationship of the stone (or implied stone) wall and an applied set of ordering pilasters and mouldings, such as in Palazzo Piccolomini, can let us share in Roseellino's understanding of the role of the orders in structuring the wall. The classical elements resolve an asymmetrical plan with a strongly ordered facade. They co-exist on the ground floor with the stone wall. The joining of the wall continues through the pilasters and only the very shallow relief and narrow fillet moulding mark the pilasters. This co-existence, developed from Alberti's Palazzo Rucellai, marks this approach to the wall as quite distinct from the pre-Renaissance Florentine palaces or the walls of Michelozzo, Giuliano da Sangallo, or Cronaca. A comparison of the primary walls for Palazzo Piccolomini and the Palazzo Gondi or Strozzi indicates the potential in the expression of the jointing of the stone, the smoothness or coarseness of the stones, and the role of other elements applied to or structuring the wall. In the Strozzi we see an abstract and seemingly arbitrary pattern of stone lengths as a sort of rough neutral ground for the refined openings and cornices. Independence is maintained; unlike the Piccolomini, the roles are distinct and the power and strength of the wall reinforced.

Typically, traditional facade study was limited to large scale drawings, often measured drawings, and to proportional studies. This was due to the importance given to proportional relationships and the reliance on proportion in many definitions of beauty.⁸ There is a certain logic in the link between ideal statements of beauty and ideal geometric forms. The circle and the square had unique geometric characteristics undeniable and invariable: their existence in architecture was treated as a sign of ultimate authority. The analysis of pre-existing buildings was often a search for relationships between the parts based on established geometric, harmonic and arithmetic systems—commonly adopted systems based on absolute relationships.

Going back over difficult historic facades, we might look for the proportional system used by the architect in an attempt to understand the final detail design. A study of Palazzo Massimo by Giulio Romano quickly points towards proportional shapes involved in the facade area of the loggia-entrance and the major wall surface of the second and third floors. The cornice, which appears shallow for architecture of this period and not classically proportioned to the two-story wall surface, falls into place if we give controlling authority to the proportional diagram.

I have touched upon a few primary concerns, overall shape and form, the wall surface, and order of openings. We might from here involve ourselves with the openings them-



PALAZZO MASSIMO

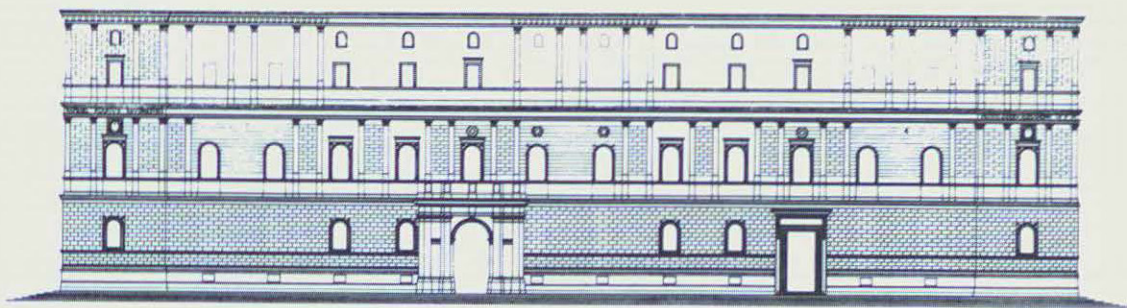
Baldassare Peruzzi 1532-1536

selves and then go on to architectural framing elements (i.e. pilasters, columns, entablatures, beams). An examination of the facade of the late 15th century Palazzo della Cancellaria in Rome (architect unknown) may bring to light the tools used to create such delightful movement and depth. We find the building mass accentuated by pavillion-like projecting corners establishing a basic ABA rhythm to the overall facade. We then see that the entry, though not centred in the 'B' zone, holds its own position down by means of another projecting element which does not reach the roof, and is further balanced by yet another smaller projecting entrance piece. Its position, which at first glance seems to be proportionally related to the whole, has several other very subtle yet noticeable positional proportional relationships. The fairly subtle, smooth stone pilasters create an ABABA... rhythm of vertical rectangles. Any two adjacent rectangles form a square. The squares forcefully and continually manifest themselves, creating an imbalance or perhaps counterpoint to the overall rhythm. These overlapping figures drawn in stone on the facade are definitely present yet hard to define.

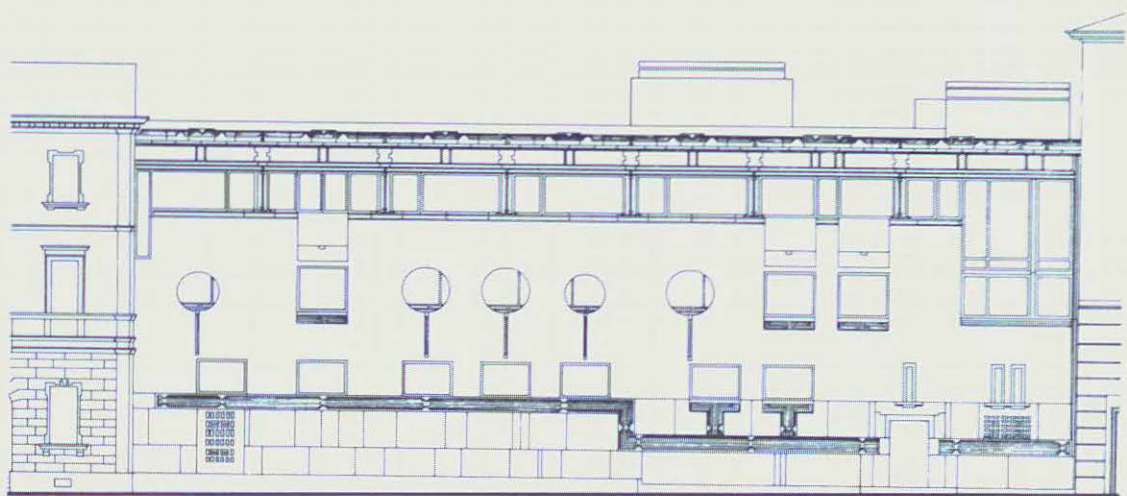
The concept of figural design involves all the other compositional tools, and uses these tools to achieve another level of visual interest from the elements of the facade. The figures may be related to the proportional spacing and location of openings and gridding elements or they may form a separate layer of meaning where only certain elements are visually pulled together through common finish, detail, or position. As a departure from the previous historical references, I would like to use Carlo Scarpa's Banco Popolare di Verona to discuss the potential figures contained within this personal and somewhat modern language.

This enigmatic facade has several concurrent compositional ideas that one must identify in order to begin to appreciate the brilliance and richness of the architecture. As we did in the discussion of the Ca d'oro, we might begin by looking at the groupings of elements applied to or cut away from the primary wall surface. This stuccoed ground zero becomes a somewhat neutral ground for the local symmetries such as the grouping of four projecting squares in the upper right area or the large rectangular cut out in the top right corner. These two locally organized pieces begin to work together by their asymmetrical balance about the central axis of the entry. We begin to see the seemingly independent and unique elements compositionally supporting other ideas and not being limited to just representing their corresponding plan moves.

The overall facade seems to be structured on a regular vertical series of regulating lines, while laterally a hierarchical ABA... structure seems to be in place. This is accentuated by the double vertical axis of the oval openings in the wall. These split circles, present early on in the design of the facade, are at once an outward manifestation of this shifting lateral grid structure and an acknowledgement of the essential complexity in the placing of an opening in this double or layered wall, where the actual glazing is back on an interior plane behind the neutral ground. The vertical rainwater slots develop the idea further and exploit the inherent water-handling characteristics of the wall materials. The overall figural gestures of the major planes are deflections down and to the new entry on the right; we have the facade plane taking cues from the existing and renovated portion, adjusting itself to the new set of floor levels and plan concerns. The slipping and deflection reflects the changing centre, and asymmetrical



PALAZZO DELLA CANCELLERIA



BANCO POPOLARE DI VERONA Carlo Scarpa 1973-1975

courtyard beyond and, in fact, the actual overlap of this facade past the realm of the internal courtyard. The facade certainly entertains many Veronese traditions, including the use of the local pink marble and the approach to the role of the frontal plane in the city. It brings to the tradition a new, personal comment on architecture with another unique character in a highly developed setting. Respect of the traditional ceiling line, types of materials, finishes and colours, and involvement with detail at every architectural scale places the building in the traditional rather than modern camp. The architecture, nevertheless, still makes use of contemporary technology; the architecture finds means of expressing, within traditional compositional ideas, the highly sophisticated contemporary communications and information systems. Deliberately or not, Scarpa has set out a challenge to the architectural community.

I hope that by discussing a few specific items in a few selected facades I have been able to bring to life some of the rather abstract concepts of facade composition that are the basis of the secondary compositional ideas which form the primary character of a building. By pointing out only a few of the many ideas simultaneously present, I hope I have not implied simplicity; each of these facades could quite easily form the basis of a treatise.

A facade can be a straightforward response to the requirements of shelter and lighting, fall within the construction methods of its context, yet still add great richness to the community. This richness of expression is derived from the development of the building's personal character—the architect's specific design solutions for component elements and their ordering structures. The compositional tools now

available are not restricted to the theoretically modern palette; they can include the figural and proportional principles without requiring the recreation of details that may not be appropriate to the project. The current eclectic scavenging of history for parts (often used ironically and out of context) can be refocused into a more rigorous search for the intellectual principles that have given us such great urban characters in the past and may once again contribute to the quality of architectural experience.

NOTES

1. Le Corbusier (Charles-Edouard Jeanneret), *Towards a New Architecture* (New York: Praeger Publishers, 1960) translation by Frederick Etchells.
2. *Ibid.*
3. Bruno Zevi, *The Modern Language of Architecture* (Seattle: University of Washington Press, 1978).
4. The challenge of the dense city with continuous street fronts came from many theoreticians in the late 19th and early 20th centuries, including Sir Ebenezer Howard (the Garden City), Frank Lloyd Wright (Broadacre City), and Le Corbusier (the Radiant City).
5. Robert Venturi, Denise Scott Brown, Steve Izenour, *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form* (Cambridge: The MIT Press, 1972).
6. Most influential of these works would probably be Marc-Antoine Laugier, *Essai sur l'Architecture*, 1753.
7. These studies were done as part of a course on the Theory of Architecture at the University of Toronto Florence Program (Fall 1983). Co-instructors were Dan Hollman and Peter Rose.
8. The role of proportional mathematics as an essential part of the definition of beauty in Architecture is present through the Renaissance and later periods due to authority given proportional studies by Vitruvius, *The Ten Books on Architecture*, and thereafter only developed and not challenged in basic concept.