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Tropic Architecture

John Hendrix

Mannerist architects in the Cinquecento created what can be called “tropic architecture.” They set out to break the rules of classical architecture, but the rule-breaking was done systematically, by applying rhetorical tropes, or figures of speech, to architectural composition, the four most common being metaphor, metonymy, synecdoche, and irony. According to Kristeller, rhetoric was an important basis of Renaissance humanism. Students learned tropes and other figures of speech from well-circulated classical texts such as the *Rhetorica ad Herennium* and Quintilian’s *Institutio oratorio*. Examples of tropic devices can be found in works such as Giulio Romano’s Palazzo del Te and Michelangelo’s Porta Pia. There are many examples of mannerist works of architecture in the twentieth century that used the same tropic devices. The use of tropic devices in architectural composition results in an architecture that is a form of poetry.

Rhetoric played an important role in Renaissance Humanism. The revival of classical Latin was connected to the teaching of rhetoric in northern Italian universities at the beginning of the fourteenth century. The *Rhetoric* of Aristotle was widely circulated and studied, and many commentaries were written on it. In the sixteenth century, the commentators included Daniel Barbaro, editing the commentaries of his great uncle Ermolao Barbaro. In the Quattrocento and Cinquecento, more than 800 editions of classical rhetorical texts were printed in Europe. The most influential of the texts was the *Rhetorica ad Herennium* from the first century BC, the oldest surviving Latin text on rhetoric. Once attributed to Cicero, but now taken to be anonymous, the text was addressed to Marcus Herennius, a consul of the Roman republic. Book Four contained thorough descriptions of the tropes and figures of speech, which could also be found in books Eight and Nine of Quintilian’s *Institutio oratoria* from the first century AD. Ten tropes are described in the *Rhetorica ad Herennium*, and fourteen are described in the *Institutio oratoria*. 278 editions of the two books combined were printed during the Renaissance.

The figure of speech, or *schēmata lexeos*, was distinguished from the figure of thought, or *schēmata dianoias*, by Demetrius around 100 BC. The

figure of speech was described as an ornament by the early Latin rhetoricians, *ornamentum* or *exornatio*: ornament of thought, or *sententiarum*, and ornament of speech, or *verborum*. In architectural language as well as language, the trope or figure of speech is seen as ornament. The word tropic derives from the Greek *tropikos*, meaning “turn.” The Latin *tropus* meant “metaphor” or “figure of speech.” Aristotle had no concept or word for figure of speech, but he distinguished tropes from figures of thought. Four kinds of metaphor are defined in *Rhetoric* 3.10.7, and simile and hyperbole are defined as types of metaphor, leading to the later definition of metonymy and synecdoche as types of metaphor.

In the *Poetics* 1457b (xxi. 7–9), metaphor, which is discussed extensively, is defined as a “movement,” or *epiphora*, “of an alien,” or *allogrios*, “name from either genus to species or from species to genus or from species to species or by analogy.”¹ According to Aristotle, “the right use of metaphor means an eye for resemblances” (xxii. 17).² Aristotle refers to his discussion of metaphor in the *Poetics* in the *Rhetoric*. In the first full treatment of the figures of speech in the *Ad Herennium*, metaphor does not appear as a genus term, but figures of speech are described as instances when “language departs from the ordinary meaning of the words and is, with a certain grace, applied in another sense.”³ In the *Institutio oratoria* 3.301, Quintilian defined metaphor as a species of trope. The trope is defined as “the artistic alteration of a word or phrase from its proper meaning to another.” According to Cicero in *De Oratore*, metaphors are like clothing, becoming delightful “past the needs of protection,” and glittering.⁴

My interest in tropic architecture began in Hayden White’s seminar at Cornell. According to Hayden White in *Metahistory*, the four “master tropes” of classical rhetoric and modern language theory are metaphor, metonymy, synecdoche, and irony. Tropes are the basis of figurative or poetic discourse. In White’s *Tropics of Discourse*, tropes are described as “deviations from literal, conventional, or ‘proper’ language use, swerves in locution sanctioned neither by custom nor logic. Tropes generate figures of speech or thought by their variation from what is ‘normally’ expected...”⁵ Giambattista Vico argued that all figures of speech can be reduced to the four tropes of metaphor, metonymy, synecdoche, and irony. In the *New Science* of 1725, Vico proposed an analogy between tropic language and transformations of society and consciousness throughout history.

According to Ernesto Grassi in *Rhetoric as Philosophy: The Humanist Tradition*, the trope and the metaphor in particular are “the original form of

the interpretive act,"⁶ moving from the particular to the general in abstraction in representation. As figurative and imaginative, tropic speech is imagistic, a "showing" or demonstration, and is thus the basis of the theoretical, the root word *theorein* meaning "to see." The transfer or *metapherein* of signification by tropic language to the image entails a presentation that "leads before the eyes" or "lets us see," *phainesthai*. Metaphor brings objects in language "immediately before our eyes," or *pro ommaton poiein*, affecting the passions. Literal language is rational, dialectical, demonstrative and apodictic, and contains no pathos, or pathetic character. Rhetorical or semantic language is immediate and indicative, and has a pathetic essence, an emotional impact, appealing to longing and passion. Tropic language or poetry is a language of desire. It has a formal function in relation to literal language or philosophy, but rhetorical and literal language, poetry and philosophy, must go hand in hand, combining the pathos and the logos of human existence.

Metaphor, in that its mechanisms bring objects of empirical observation into sight in relation to language, fundamentally structures the world. Empirical observation involves the reduction of sensory phenomena to meaning in language, and it is only through the transference that sensory reality can be relevant to human thought and experience. Human identity is manifest through such transference; through metaphor reality is humanized. Reality conforms to human needs through rhetorical language. Metaphor is the basis of the original unity of rhetoric and philosophy, form and content in language. The metaphor establishes clarity in its revelation, awakens delight as a sign of a successful transference, and is "characterized by a unique strangeness," or *to xenikon*, "because it reveals something unusual and unexpected."⁷ According to Grassi, the philosophical importance acquired by rhetorical language is "the framework in which the humanistic tradition attains its contemporary theoretical importance."⁸

The best example of tropic language in Renaissance architecture can be found at the Palazzo del Te (Figure 1) in Mantua, constructed between 1524 and 1534 by Giulio Romano as a *villa suburbana* for Federico II Gonzaga. The architecture displays the classical Greek column and entablature trabeation, but stripped of its structural function. According to Vitruvius in the first century BC, the temple is a metaphor of the human body. In *De architectura* III.I.1, the temple "must have an exact proportion worked out after the fashion of the members of a finely-shaped human body."⁹ Italian translations of *De architectura* were in circulation by the 1520s. The column is a metaphor of the human body. While the Doric column will "furnish the proportion of a

man's body, its strength and grace" (III.I.6), the Ionic column has a "feminine slenderness" (III.I.7), and the Corinthian column "imitates the slight figure of a maiden; because girls are represented with slighter dimensions because of their tender age, and admit of more graceful effects in ornament" (IV.I.8). The base of the column is a metonym for the foot of the human body: "Under the base they," the ancients, "placed a convex moulding as if a shoe..." (III.I.6). The capital of the column is a metonym for the head of the body: "...at the capital they put volutes, like graceful curling hair, hanging over right and left."

In metaphor, which is representational, things are characterized in terms of their similarity to one another, in the form of analogy or simile, as in "the world is a stage," for the purpose of creative description. In metonymy, things are related to one another in part relationships, in the process of reduction. *Metonymia* is a change of name, a displacement, a substitution of a descriptive term with something that has no relation to the subject term, as in "the foot of a hill," for the purpose of creative description. According to Kenneth Burke in *A Grammar of Motives*, metonymy usually involves the incorporeal conveyed in terms of the corporeal. A metonym is literally irrational, because it involves a displacement or substitution as well as a condensation or combination.

At the Palazzo del Te, in addition, the top cornice of a pediment is placed above voussour stones and "hanging" volutes or scrolls. The pediment would normally be supported by columns. The cornice is a synecdoche for the pediment/column ensemble. A synecdoche is a form of metonymy in which a part symbolizes a whole, as in "the crown of England." Synecdoche involves an integration within a whole that is different from the sum of parts, and within which the parts are microcosmic replications. Finally, at the Palazzo del Te, a triglyph and a piece of the architrave are "slipped down" in the entablature at the center of each bay of columns below, introducing the trope of irony into the composition. Irony is the opposite of what is expected, negating on the figurative level what is affirmed on the literal level. The oxymoron and catachresis are examples of irony in language. According to Hayden White, irony is a product of language itself having become an object of reflection, and the sense of the inadequacy of language to represent reality. Irony reveals the difference between literal and figural representation, and the tendency of language to obscure more than it clarifies. Irony is the product of an enlightened or self-critical stage of consciousness "in which the problematical nature of language itself has become recognized."¹⁰

The creative inventions of Giulio Romano, and the creative breaking of the rules of the classical architectural vocabulary, appear to follow the rules of tropic language. Why are the triglyphs and pieces of the architrave slipped down? The entablatures and columns in the façade of the building are not real entablatures and columns—they are metaphors for entablatures and columns, thus doubly tropic. They are ornament that strips the original column and entablature of their structural function, as tropic language strips literal language of its representational function. Renaissance architects employed the classical vocabulary elements in rhetorical ways while stripping them of their functional role in architecture, beginning with Leon Battista Alberti at the Palazzo Rucellai (Figure 2) on the Via della Vigna Nuova in Florence, built between 1446 and 1451.

Alberti borrowed the device from the Romans, who stripped the Greek column and entablature of their structural function and used it as ornament, as in the tabularium motif on display at the Colosseum (Figure 3). The practice culminated in Alberti's last work, Sant'Andrea in Mantua (Figure 4), begun in 1462 for Ludovico III Gonzaga, on Piazza Mantegna in Mantua, on axis with the Palazzo del Te, built sixty years later, along the Via Giovanni Acerbi and the Via Principe Amedeo. Romano appears to be giving away Alberti's game, revealing that the vocabulary elements have in fact been stripped of their function, in a mannerist dialogue that could be appreciated by well-educated humanists. The use of tropes creates an architecture that is a parody of itself in its imitation of itself, in the sophisticated self-critical consciousness of mannerist Italy. Mannerist architecture, in that it depends on tropic language, is poetic architecture, expressing the human condition in language.

The façade of Sant'Andrea in Mantua displays the simultaneity of two formal compositional systems, the superimposition of two separate façade types. The temple front, with pediment, entablature, and colossal pilasters, is a metaphor for classical pagan religion, while the triumphal arch, with large central arch, a small entablature running along the base of the arch, and minor arches on either side above and below the entablature, separated from the main arch by pilasters, is a metaphor for Roman imperialism. The combination of the two façade types can be read as a metaphor for "the imperialism of religion," signifying the ambitions of the Catholic church at the time in secular affairs, incorporating the traditions of paganism and humanism into its practice. The composition of the façade is ironic, since in previous years the church would have set out to demolish those very architectural forms as

symbols of paganism.

The elevations on the interior of the basilica (Figure 5) repeat in part, or are a synecdoche of, the facade architecture. The pilasters on the walls of the nave, covered with *grotteschi*, organized in the *rhythmische travée* of paired columns in bays alternating with the arches that front the vaults of the chapels, appear to be supporting the coffered barrel vault of the nave, but in fact are not. The vault is actually supported by buttresses hidden in the bays between the chapels, and the columns have been stripped of their structural function as decorative pilasters. The composition appears to be a catechism or visual metaphor for the structure of theology in the Renaissance.

The church is held up by modern buttressing techniques, but it is adorned, in a deceptive way, with classical ornament, made to appear as the support structure, that adopted by the church for historical justification. The deceptive metaphor can also be seen to be perpetrated for the purpose of demonstrating that the perceived material world is a scaffolding or false veil that conceals the true reality of eternal forms; it is thus a catechism or metaphor for the Neoplatonism of the Renaissance, the synthesis of Platonic philosophy and Catholic theology. The ornamental vocabulary elements of the architecture are as the shadows on the wall in the Allegory of the Cave in the *Republic* of Plato, deceiving us in relation to the eternal forms that we can only understand as archetypes or intelligibles, but cannot perceive. Alberti pushed the boundaries of architecture as a form of poetic expression and as a catechism of the epistemology of his culture, by employing tropic devices. The same deceptive system can be found in Carlo Maderno's nave for St. Peter's in Rome around 1600, and in Francesco Borromini's San Carlo alle Quattro Fontane in Rome around 1638.

In the Cinquecento, the architecture of Michelangelo also displays tropic devices, in the vestibule of the Laurentian Library in Florence, begun in 1525 for Pope Clement VII, Giulio de' Medici, and at the Porta Pia in Rome, constructed between 1561 and 1565 for Pope Pius IV, Giovanni Angelo de' Medici. In the vestibule of the Laurentian Library (Figure 6), paired columns are inserted into the wall, negating their structural function. Blank openings are framed by pilasters tapered downward, and scrolls are hung on the wall, as at the Palazzo del Te. The rules of classical composition are purposefully broken and the form deliberately contradicts the function, allowing the architecture to transcend its functional requirements in a poetic expression.

At the Porta Pia (Figure 7), the dish and towel, a symbol of the medical profession, is a pun on the name "Medici," and the balls on the crenellation

are references to the *palle* on the Medici coat of arms. The gate faces inward towards the city, the opposite of a Roman gate. Elements of classical trabeation are placed out of context and rendered nonsensical, challenging the representational abilities of language in a self-critical consciousness. Fluted pilasters have no capitals, a curved pediment is placed inside a triangular pediment, and scrolls look like ears—they are thus called “auriculate” scrolls. The ensemble takes on an anthropomorphic quality, blurring the line between the tectonic and representational, and between the literal and figural. In what appears to be an homage to Michelangelo, Federico Zuccari pushed the boundary further between the literal and figural, between function and tropic representation in architecture, at the Palazzo Zuccari (Figure 8), begun in 1590 in Rome.

There are several good examples of what can be described as tropic, rhetorical, or humanistic architecture in the twentieth century, elements that are usually obscured by the dominance of functionalism and “post-humanism” in modernist architecture. The Miesian Corner (Figure 9), the corner found in classroom buildings designed by Ludwig Mies van der Rohe on the campus of the Illinois Institute of Technology around 1945, consists of a right-angle steel plate that is inserted into a brick frame at the corner of the building for the purpose of covering the fire-proofed steel column and mimicking the steel column as the corner. The presence of the steel column as a structural element is absent in the welded steel plate, which acts metonymically in the text of the architecture. The plate is revealed as a metonym, and synecdoche, of the column and structure of the building, by the fact that it does not reach the ground; it is placed on top of two courses of bricks. The plate creates a catachresis in the architectural language. All invention in architecture involves some form of dislocation or displacement, as invention in language, in metaphor and metonymy, involves dislocation, condensation and displacement, the terms used by Sigmund Freud to describe the formation of dream images from dream thoughts. As Jacques Lacan pointed out, metaphor and metonymy are forms of condensation and displacement, and thus the unconscious functions like a language. In the use of tropes by Mies the form of the architecture contradicts and parodies its structural and functional requirements, allowing the architecture to be a form of art or poetic expression, in the tradition of Transcendental Idealism, transcending its functional requirements and expressing the human spirit.

In the Glass House (Figure 10) by Philip Johnson, built in New Canaan, Connecticut in 1949, the welded right-angle steel plate that was designed by

Mies to mimic the steel column, becomes the structural element at the corners of the house. A form that was designed as ornament and tropic device, as a parody of structure, becomes the structural form. A similar mannerist dialogue is created as that between Romano and Alberti. The design for the façade of the Vanna Venturi House (Figure 11) in 1962 in Chestnut Hill, Pennsylvania, by Robert Venturi, consists of a pediment broken down the middle, below which is a lintel in the center intersected by the trace of an arch, and banks of small windows on either side. The abstract forms of the architecture are tropes referring to the classical elements, pediment, arch, lintel, and to their transformation begun at the Casa del Girasole (Figure 12) by Luigi Moretti in Rome in 1947. Here the tropes facilitate a historicist architecture, as in the work of Alberti.

Certain compositional procedures in the design of the early houses by Peter Eisenman can be directly related to the use of metaphor and metonymy in language. At House I (Figure 13), the Barenholtz Pavilion in Princeton, from 1967, the forms used were divested of their usual associations, such as the structural function of the column, in order that they could function as pure marking devices in a formal system. In a metaphor, the primary signifier is divested of its associated signified in order to allow the shifting of the signifier in the metaphor to produce signification. It is Eisenman's purpose, in the use of the metaphor, to disassociate the traditional architectural signifiers from their traditional signifieds. The metonymic function of the floating column allows two simultaneous compositional systems to be disassociated from one another, as in the metonym "the leg of a table." The metonym is irrational, involving the condensation and displacement in the tropic mechanisms of the creative imagination, in the humanistic tradition. The façade of Eisenman's IBA Social Housing at Checkpoint Charlie (Figure 14) from the 1980s recalls the superimposition of two formal compositional systems at Alberti's Sant'Andrea in Mantua. The concrete slabs in Eisenman's Holocaust Memorial (Figure 15) near the Brandenburg Gate, from 2004, serve as metaphors for the anonymous victims of the holocaust. Tropic architecture continues to be a useful tool for powerful and resonant expression.

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Notes

- ¹ Alan G. Gross and Arthur E. Walzer, *Rereading Aristotle's Rhetoric* (Carbondale: Southern Illinois University Press, 2008), p. 168.
- ² Aristotle, *The Poetics*, trans. W. Hamilton Fyfe (Cambridge, MA: Harvard University Press, The Loeb Classical Library, 1965), p. 91.
- ³ Alan G. Gross and Arthur E. Walzer, *Rereading Aristotle's Rhetoric*, p. 169.
- ⁴ *Ibid.*, p. 152, *De Oratore* 3.155–56.
- ⁵ Hayden White, *Tropics of Discourse: Essays in Cultural Criticism* (Baltimore and London: The Johns Hopkins University Press, 1978), p. 2.
- ⁶ Ernesto Grassi, *Rhetoric as Philosophy: The Humanist Tradition* (University Park: The Pennsylvania State University Press, 1980), p. 7.
- ⁷ *Ibid.*, p. 95.
- ⁸ *Ibid.*, p. 101.
- ⁹ Vitruvius, *On Architecture (De architectura)*, ed. and trans. Frank Granger (Cambridge, MA: Harvard University Press, The Loeb Classical Library, 1944).
- ¹⁰ Hayden White, *Metahistory: The Historical Imagination in Nineteenth-Century Europe* (Baltimore and London: The Johns Hopkins University Press, 1973), p. 37.