ALBERTI’S LINEAMENTS AND ARCHITECTURAL QUESTIONS
ABSTRACT

Every architectural site poses an architectural question and thus every proposed design constitutes an architectural answer. There may not be definitive answers to any of the architectural questions our needs and contexts pose, but nonetheless, long-lasting answers can be given. Central to Renaissance architect Leon Battista Alberti's approach to design is a relatively under-addressed concept from his aesthetic theory: lineaments. This paper offers a new reading of this concept, situates it as central to Alberti's design ideals, and takes it in a new direction, articulating it as a salient concept in considering what it might take to ensure that our architectural answers are long-lasting ones.

INTRODUCTION

Every architectural site poses an architectural question and thus every proposed design constitutes an architectural answer. There may not be definitive answers to any of the architectural questions our needs and contexts pose, but nonetheless, long-lasting answers can be given. At least, Renaissance architect and art theorist Leon Battista Alberti

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2 Ibid.

3 S. Lang, "De Lineamentis: L. B. Alberti's Use of a Technical Term," Journal of the Warburg and Courtauld Institutes 28 (1965): 331–335, 331fn8. "Translators and commentators in the past have translated this term variously; Bartoli as disegno (which meant 'drawing' as well as 'design'), Martin as lineamenta and once as platteforme, Leoni as 'design'. Theuer renders lineamenta as 'Risse'. Parotsky, who in Idea (Studien der Bibliothek Warburg, v), Berlin, 1924, discusses Alberti's conception of architecture, interprets lineamenta as 'Form'. Krautheim interprets variously according to the context in which the word occurs; when discussing the Etruscan templum he translates 'plan' (R. Krautheimer, 'Alberti's Temple Etrus.-cum', Münchner Jahrbuch der bildenden Kunst, 3. Folge, xxii, 1961, p. 71) – lineamentum being here used in the singular. But he considers that "lineamenta, as used by Alberti in De Re Aedificatoria, should probably be rendered by "schematic outlines" instead of "drawings" or "designs" as translated by Bartoli (R. and T. Krautheimer, Lorenzo Ghiberti, 1957, p. 230. In his 'Alberti and Vitruvius', p. 47, he renders the word 'definitions'."

4 Rendering 'lineamenta' 'form,' would not be sufficient to distinguish the term from Aristotle's logos and Plato's eidos – both of which are often translated "form" – though it would, appropriately, group the three together on account of their immaterial signification. 'Drawing,' too, is an undesirable translation since Alberti indicates that 'lineamenta' are conceived first in the mind and only then tested on paper. 'Design' and 'schematic outline' similarly imply something observed in two-dimensional space. Rendering 'lineamenta' differently in different contexts could capture something of its diverse usage.
Alberti's design ideals, and takes it in a new – even anachronistic – direction, articulating it as a salient concept in considering what it might take to ensure that our architectural answers are long-lasting ones.

LINEAMENTS DEFINED

The term ‘lineamenta’ in Alberti’s works has been host to a wide range of renderings. Without deferring to Alberti's own text, one finds little in the way of clarification. In English alone, the term has been given at least eight different translations. While it is likely that each of these captures some sense of the term, it is also clear – if only from the fact that Alberti's use of the term resists a static translation – that 'lineamenta' designates something distinctive. The infrequently used English cognate 'lineaments' thus presents itself as a preferable rendering – as it has been for Rykwert, Leach, and Tavernor – since this word does not carry the conceptual baggage of other, more commonly used terms.

On the reading to be presented here, lineaments are understood as the constitutive parts of a formal (geometrical) answer to an architectural question. They are the linear, architectural forms that make up a design, and are central to Alberti's De re aedificatoria, where 'lineamenta' takes on two seemingly disparate denotations.

The first can be inferred from the definition given at the outset of the Book I: “Let lineaments be the precise and correct outline, conceived in the mind, made up of lines and angles, perfected in the learned intellect and imagination.” Lang submits that, from definitions like this, “All one can gather is that the lineamenta can be defined as a drawing consisting of lines and angles by which the building is determined.”
The second denotation is prima facie incompatible with the first. Considering the title of the first book – “The Lineaments” – and the definition given there, a reader might expect an exploration of the nature of geometrical shapes and strategies of deriving or conceiving of new ones. On the contrary, this book explores the diverse elements of buildings – openings, walls, rooms, etc. – considered generally. It is even more surprising to find that after considering these elements and, in some cases, their various types and subordinate parts, Alberti concludes the first book with the following: “We have said enough on the lineaments of buildings.” We can glean from this that, all along, Alberti has been speaking univocally of lineaments, and that the term must somehow synthesize both of the senses mentioned.

Lang cites an interesting passage in support of a reading that places its emphasis on the first denotation alone. In this passage, Alberti recommends that the strongest part of walls – the corners – should be positioned counter to the strongest winds, rains, etc., adding the following qualification:

But if the other lineaments of the building prevent you from using a corner [where you wish]...a curved wall must be used instead, the curve being part of the circle, and the circle, according to the philosophers, being all angle.

Lang insists, “Only the plan of the building can prevent an angle at a particular place, hence lineamenta [in this passage] can again only stand for the plan.”

This interpretation offers much food for thought, and it is especially interesting to note that while Alberti uses the plural ‘lineamenta’ he may be using this plural to represent a single collection, the unified plan. This tension is present elsewhere in the text, too. Ultimately, however, Alberti’s point incorporates more than Lang suggests. By “other lineaments,” Alberti is referring to those parts of a plan that are arranged in a perpendicular fashion - i.e., the walls. The passage, then, suggests that while right angles are the strongest of angles and are ideally put in positions counter to winds, rain, etc., it may not always be possible to harmonize such

but would obscure the sense of commonality suggested by the Latin in those different instances. Furthermore, since it is not clear that the word has multiple meanings, such a strategy is again misleading.

6 Ibid., 7.
9 Ibid., 32.
10 Ibid., 20.
12 Alberti, On the Art of Building in Ten Books, 20. He writes: “Right angles are the most useful. Acute angles are never used, even in the smallest and most insignificant of areas, except reluctantly and when forced to either by the constraints of the site or by important demands of the area.”
13 Ibid., 303.
15 Alberti, On the Art of Building in Ten Books, 156. It should be noted that Alberti himself attributes this conception of beauty to Socrates. And, to bring the connection full circle, Gadamer calls upon Plato’s conception of beauty in developing his hermeneutic theory (cf. Truth and Method, 472-484): “When we understand a text, what is meaningful in it captivates us just as the beautiful captivates us” (484).
16 Cf. John Shannon Hendrix, “Alberti and Ficino,” School of Architecture, Art, and
an arrangement of lineaments with the rest of the lineaments of the plan – e.g., the architectural site. Indeed, certain lineaments or features of the plan of a building, insofar as they must harmonize with constraints of the geographical location or the chosen area for the ground plan, can prevent other lineaments or features from being harmoniously integrated.

Lineaments, though, are merely the syllables and words that constitute any fully articulated answer to an architectural question. A great design is more than such a collection of parts. What these lineaments need, to follow this grammatical analogy through, are syntax and cohesiveness. It is thus no surprise that the unity of a group of lineaments is better explained along with Alberti’s other aesthetic concepts.

**LINEAMENTS IN ALBERTI’S AESTHETIC**

The governing concepts of Alberti’s architectural aesthetic are lineamenta, concinnitas, and pulchritudo. Lineaments (lineamenta) are central, but are envisaged and understood with reference to concinnitas and pulchritudo. These latter two concepts play syntactic and orienting roles, respectively, in answering architectural questions. **Concinnitas** — a rule of arrangement — helps to compose unlike lineaments into harmony with each other. **Pulchritudo** — which will subsequently be referred to as beauty — is the harmonious form of a sympathetically arranged set of lineaments.

Said another way: lineaments are conceived, concinnitas is followed, and beauty is sought. In the same way that, for 20th century philosopher Hans-Georg Gadamer, a correct interpretation is one that “disappears” into a text, for Alberti, a successful answer to an architectural question is one from which “nothing may be added, taken away, or altered, but for the worse.” Given the cooperation of these three concepts in the process of answering architectural questions, it is easy to conflate their functions. Nonetheless, the distinctness of the concepts is confirmed by Alberti’s understanding of nature.

In Alberti’s conception of nature, concinnitas is the law productive of beauty. Joan Gadol has masterfully articulated the cosmological dimensions of Renaissance aesthetics in relation to Alberti. The critical point to reiterate from Gadol’s analysis is that the cosmological aesthetic is reflected in the architectural one: “Architecture was to bring about in its ‘bodies’ what nature strives for in hers.” In this respect, architectural beauty is a goal, tempered by attention to and imitation of this natural law. Alberti writes, “neither in the whole body nor in its parts does concinnitas flourish as much as it does in Nature herself.” The architect, in attempting to follow this rule, becomes an apprentice to nature.

Beauty in nature is both constitutive and regulative. It is never achieved by, but plays a regulative role for, the architect. Answers to architectural questions aim at beauty. Beauty orients both the intellectual and imaginative development of lineaments in the mind of the architect and the architect’s response to the question posed by the site. As Gadol notes, “In the structure of his artificial bodies, [Alberti’s architect] sought to catch and reflect the theoretic plan of nature.” Since nature is just the fully integrated plenum that is all things, Alberti’s buildings would, ideally, imitate that kind of exhaustive integration. Hence, beauty is “a form of sympathy and consonance of the parts of a body.”

Alberti makes no mistake about the difficulty of this architectural pursuit. He acknowledges, “rarely is it granted, even to Nature herself, to produce anything that is entirely complete and
perfect in every respect.” Nonetheless, as mentioned above, he defends his theoretical pursuits by echoing the optimism of Plato’s Socrates.

To summarize, lineaments fulfill their task through the architect’s pursuit of their harmony with attention to nature’s rule of production. It is the duty of an architect to attend assiduously to this natural rule, concinnitas, which governs the arrangement of the lineaments of a building so as to prescribe beauty in design. Thus lineaments, concinnitas, and beauty constitute, constrain, and guide answers to architectural questions.

LINEAMENTS AND ARCHITECTURAL QUESTIONS

Lineaments are the sets of architectural angles and lines to which the parts of buildings can be reduced. They are parts in need of arrangement, so Alberti understands them in terms of more general aesthetic concepts. Lineaments are situated posterior to the productive rule of concinnitas and always prior to the ever-elusive ideal of perfect harmony or beauty. In Lang’s words, they are the “all-embracing key to the entire building.” This centrality makes lineaments relevant in thinking about providing long-lasting answers to architectural questions.

Gadamer has stated that to understand a sentence is to understand it as an answer to a question. Questions, he argues, reveal their biases and shortcomings in their inability to provide proper answers. This is because “A question places what is questioned in a particular perspective.” In this sense, while a question enables a sentence to be understood and articulated, it also inherently limits, since it defines a range of intelligible answers. This suggests that the way in which a question is asked can mean the success or failure of an answer in practice. This paper has made use of this understanding of questioning to enrich Alberti’s architectural aesthetic.

Essential to understanding the task of an architect, on Alberti’s picture, is an understanding of lineaments and their

Historic Preservation Faculty Papers no. Paper 25 (2012) and Joan Gadol, Leon Battista Alberti: Universal Man of the Early Renaissance (Chicago: University of Chicago Press, 1969). Hendrix claims, on the one hand, that Alberti understands beauty as concinnitas (2). Just a page later, though, he claims that beauty has the quality of concinnitas (3). Joan Gadol writes, “[A building] consists of matter (structure) and design or form (lineamentum)...the design of the building relates ‘things which are different but proportionable to each other’; it regulates ‘the situation of the parts and the disposition of their lines and angles’” (104). The present reading suggests that lineaments are not “the design.” Rather, lineaments are the envisaged parts that constitute a design. Also, lineaments do not “relate” and “regulate” the positioning of the parts of a design over and above the fact that lineaments are these parts. It is concinnitas that performs the function of relating parts, “to compose parts that are quite separate from each other by their nature, according to some precise rule, so that they correspond to one another in appearance.” (Alberti, On the Art of Building in Ten Books, 502). Furthermore, it is beauty that serves the regulative function, as beauty is “the main object of the art of building” (Ibid., 7).


18 Ibid., 108. Hendrix (“Alberti and Vitruvius,” 3) has noted the similarity of this conception of nature to Nicholas of Cusa’s invocation of Platonistic demiurge in explaining the geometrical homogeneity of creation. Indeed, such an invocation would make sense for Alberti, too.

19 Alberti, On the Art of Building in Ten Books, 156.

20 Ibid., 7.

role in facilitating the architectural ideal. It is no surprise that he utilizes argumentation from one classical text on social ideals – Plato’s Republic – to this end. Yet, his attitude toward Plato is ambivalent. He makes use of many arguments from Plato when they serve his purposes, but he rejects Plato’s transcendent and metaphysical project. Perhaps what he takes most strongly from Plato is the latter’s optimism about the worth of contemplating ideals, and the difficulty of that undertaking.

Gadamer’s appreciation of Plato is similar:

Among the greatest insights that Plato’s account of Socrates affords us is that, contrary to the general opinion, it is more difficult to ask questions than to answer them.29

Alberti’s willingness to continue asking about beauty and perfection despite having no perfect examples to guide him is precisely what makes his theory interesting, and what makes it similar to Plato’s Republic. Great architectural questions, like the philosophical ones in Plato’s Republic, stand the test of time. Their capacity for invoking wonder does not grow dull with any amount of temporal distance. Great architectural answers, presumably, do the same.

One of Alberti’s most important insights is that errors in design – errors in architectural answers – represent a misunderstanding of the question at hand.30 This reveals his concern to ensure that these answers stand the test of time. This paper has suggested Alberti’s aesthetic – with its discussion of beauty, concinnitas, and lineaments – can thus be read as an attempt at asking a certain question well: What is beauty in architecture? This question, coming to us through the work of this 15th century theorist, is standing the test of time. The question will always refer
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23 Ibid., 156.

24 Plato, Republic, trans. C.D.C Reeve (Indianapolis: Hackett Publishing Company, 2004), 573a-b. When confronted in Plato’s Republic with another character’s doubts regarding the possibility of the utopic city Kallipolis, responds thus: “if we are able to discover how a city that most closely approximates to what we have described could be founded, you must admit that we have discovered how all you have prescribed could come about.”

25 Missing in all this is an account of the relationship between lineaments, the designs they constitute, and the buildings in which they take form. The philosophical concept that establishes this connection, for Alberti, is “body.” Cf. Alberti, On the Art of Building in Ten Books, 5. For him, buildings are, straightforwardly, bodies. This would allow one to claim, too, that for Alberti the quality of the answers one gives to architectural questions are ultimately judged through the immediate beauty of those answers as seen in the bodies they give form to, in buildings.


28 Ibid.

29 Ibid.

30 Alberti, On the Art of Building in Ten Books, 321. In the tenth book, when addressing possible amendments and restorations to existing buildings, Alberti does not even bother considering ways of correcting errors of the architect. “If a building cannot be improved without changing every line,” he writes, “the best remedy is demolition, to make way for something new.”