

Building outside time in Alberti's *De re aedificatoria*

MARVIN TRACHTENBERG

For all of the vast knowledge of ancient and contemporary sources, monuments, techniques, materials, and miscellaneous lore that artfully fills the pages of *De re aedificatoria*, the modern reader tends to be far more interested in those passages that convey Leon Battista Alberti's aesthetics and theoretical ground rules for architectural planning and practice.¹ Although these ideas are correctly held up as a sharp theoretical turn, their radicalism is in some ways underestimated. Alberti is so central to the modern world of thinking about architecture, his ideas and their progeny so blindingly naturalized, that we generally fail to recognize how strange and alien to quattrocento practice, as well as to his ancient sources, were certain of his principal concepts. Prominent among these are his thinly studied views on the temporal dimension of architecture, that is, the coming into being of architecture not only in space but through time, understood here not as a transcendental factor but as a culturally and theoretically shaped, categorically fundamental condition of artistic production. This lacuna in our understanding of Alberti reflects a far greater void in scholarship. Although time has of course been investigated intensely in philosophy and treated in its anthropological and cultural dimensions, architectural time in the sense intended here—that is, time in its culturally conditioned relationship not to history or perceptual experience but to *factura* in the architectural realm—has hardly been perceived as an object of knowledge, studied only rarely in any meaningful way despite its fundamental importance. It is this unexplored dimension of time and temporality which I believe provides a new and meaningful key to Alberti as architectural theorist (and through this, perhaps, ultimately a certain insight into the Albertian subconscious of our own architecture culture).²

1. This essay is an edited excerpt from my forthcoming book, *Building-in-Time from Giotto to Alberti and Modern Extinction*, omitting aspects of the notational apparatus. Cited passages from *De re* are indicated in the text below; the translation is that of J. Rykwert, N. Leach, and R. Tavenor, *Leon Battista Alberti: On the Art of Building in Ten Books* (Cambridge, 1995), except for a few minor emendations of the passage from IX.11.

2. Exceptions to the scholarly disregard of architectural temporality can be cited. Regarding Alberti, Françoise Choay, in *The Rule and the Model* (Cambridge and London, 1997; original edition, Paris, 1980), sees time as a key to the textual structure of *De re*

Alberti as theorist of architectural temporality emerges in this study as holding very firm ideas, virtually a doctrine, highly articulated and socioculturally resonant, concerning the relationship between architecture and time. This reading would in effect extend the line of interpretation most powerfully represented by Wittkower's classic study of Alberti's "architectural principles," expanding them beyond the spatial relationships of composition, structure, typology, and proportions to incorporate temporality—a domain of interest hardly inappropriate for a "universal" mind (especially considering the preoccupation of Renaissance culture with time in its many guises). *De re* contains an extensive set of ideas about architecture and time, remarkable in its range and invention, and perhaps equally notable in the way certain aspects were totally out of touch with the realities of traditional and current time practice in architecture, which of course was inherent to its great originality. Although it might be said that these ideas are hidden in plain sight in the treatise, their textual status involves a certain complexity worth noting. Time theory, especially the core elements with which my analysis is concerned, is not openly manifest in large blocks of text. Indeed, seldom is "time" itself explicitly mentioned, especially in our sense: yet it inhabits the book extensively. As with so many of

aedificatoria, emphasizing Alberti's concern with time as creative and destructive factor in the conception, making, and duration of buildings (75, 108, 119, 131, 173 and *passim*). Choay, however, generally deals with issues radically different from the ones treated below, and on terms that exclude contemporary architectural practice as well as the complex, shifting time-consciousness of the period. Where our interests do intersect, I find that Choay's reading of Alberti overlooks certain key distinctions and thereby misrepresents his view (see n. 6 below). An exception to the general disregard of the time question is Howard Burns's illuminating "Building against Time: Renaissance Strategies to Secure Large Churches against Changes in Their Design," in J. Guillaume, ed., *L'église dans l'architecture de la Renaissance* (Paris, 1995), pp. 107–132, which treats a related aspect of architecture and time in Renaissance theory and practice, in which Alberti's role is briefly signaled. A certain superficial attention has been directed to the time issue (in the sense defined here) by modernists, for example, regarding the application of the principles of Taylorism and Fordism to architectural production in the early twentieth century; cf. A. Vidler, "Space, Time, and Movement," in R. Ferguson, ed., *At the End of the Century: One Hundred Years of Architecture* (Los Angeles, 1998), 109ff. In my book (see n. 1) the larger issues of architecture and time, including the question of modern architecture culture, will be discussed.

Alberti's ideas, he does not argue his case in any extended, logically articulated exposition, but instead works diffusely and peripatetically, crafting an apparently seamless network of mutually inferential and reinforcing assertions, citations, references, examples, metaphors, etc., widely distributed in the text, which collectively produce the effect of a *virtual* argument that is characteristic of much humanist writing.

To begin to understand his position—Alberti's virtual doctrine concerning architecture and time—we must critically review certain of his essential directives for architecture. We will move from their exceedingly well-known basic premises—in which the factor of time is already embedded—into the problematic realm of temporality.

Of Vitruvius's three primary architectural traits—utility, solidity, and beauty—the last counted most for Alberti: it is “the noblest and most necessary of all” (VI.1). In perhaps the best-known passage in his treatise—whose terms are echoed repeatedly from one end of the text to the other, no less than eight times³—the essential worth of a building for him, its beauty, was the degree to which it attained

that reasoned harmony of all the parts within a body, so that nothing may be added, taken away, or altered, but for the worse. It is a great and holy matter; all our resources of skill and ingenuity will be taxed in achieving it, and rarely is it granted, even to Nature herself, to produce anything that is entirely complete and perfect in itself. (VI.2)

Beauty was not a subjective question of sensation or feeling. It was entirely a rational matter; nor did it exist by degrees. The only beauty was perfect beauty, a *reasoned* harmony that constitutes perfection, a harmony so perfectly reasoned that it is inviolate. Alberti's aesthetic absolutism, grounded in divine cosmology through his parallel doctrine of *concinnitas*—“a form of sympathy and consonance of the parts within a body . . . the absolute and fundamental rule in Nature . . . the main object of the art of building, and the source of her dignity, charm, authority, and worth” (IX.5)—was extreme. There was no room for relativism; as he scornfully states:

some who would disagree maintain that beauty . . . is judged by relative and variable criteria, and that the forms of buildings should vary according to individual taste and must not be bound by any rules of art. A common fault, this, among the ignorant . . . I have decided to correct this error. . . . (VI.2)

The “reasoned harmony” of the parts, it followed, was to be comprehensive. The desired perfection of design extended to the smallest details (implicitly to be seen from a single, ideal viewpoint):

we must therefore take great care to ensure that even the minutest elements are so arranged in their level, alignment, number, shape, and appearance, that right matches left, top matches bottom, adjacent matches adjacent, and equal matches equal, and that they are an ornament to that body of which they are to be part. (IX.7)

Alberti repeatedly urges exhaustive planning, multiple cycles of design and revision—beyond the point of diminishing returns literally to the point of zero return on design investment—until there is “no opportunity of improvement” concerning any aspect of the project, including:

columns, capitals, bases, cornices, pediments, revetment, flooring, statues and everything else relating to the construction of the building and its ornamentation. (II.1)

Thereby it seemed that a perfection of design was possible, so complete in its laborious perfectionism of design production that, in Alberti's rather circular thinking (derived, so he claimed, from Plato and Socrates, although there was probably more of Cicero directly behind it) it was irrevocably final: it attained that state wherein “nothing may be added, taken away, or altered, but for the worse”—ever. In other words, once such plenary perfection was considered to have been attained in the design for the building, it instantly froze into immutability.

A corollary of this rule concerned the design-build sequence. To grasp the radicalism of this essential protocol of Alberti, we must realize that in traditional and contemporary practice (and the uncoded theory and principles that it embodied) there was no hard line between designing and building. The initial design phase of a project generally was limited to those aspects of form critical to convince the clients to build or necessary to the initial phases of fabrication. A comprehensive design did not exist at the beginning of construction any more than did the building itself, meaning that the intentions of the designer were not yet “complete” even to himself. What came into being in the fullness of time was not only the evolving physical structure but quite literally its comprehensive design, as an integral part of the slow process of facture, through and together with, *in* the realization of the building itself. At no point in the process was formal change, large or small, ruled out (and indeed it is the identification and explication of such change that our building histories of the period

3. Prologue, III.3, III.10, IV.2, VI.2, IX.2, and twice in IX.5.

tend to be mostly about). Although this planning system has generally been misrecognized as ineptitude and muddling by modern scholarship, it was driven by compelling ideological, social, and material factors; it worked effectively to produce most of the great buildings of medieval and Renaissance Italy, ranging from S. Marco in Venice and the Pisa Duomo group to Florence Cathedral and the new St. Peter's.⁴

Alberti categorically rejected this ubiquitous method, opening an unbridgeable chasm between designing and building (the one, in fact, that we live with today). In his ideal architectural world—in absolute antithesis to contemporary practice (as well as his own eventual work as an architect rather than writer⁵)—all of the learned, extended, redundant, and comprehensive planning and replanning *preceded* construction. Any changes during execution were ruled out.⁶ Thus we find him advising that following the stage of comprehensive planning

. . . we may determine in advance what is necessary and make preparations in order to avoid any hesitation, change, or revision after the commencement of the work. . . (IX.9)

In practical terms, the avoidance of “hesitation, change, or revision” implied speed of construction,

4. James Ackerman's brilliant and influential study of the Milan Cathedral is the classic example of the negative misreading of this pre-Albertian methodology (“‘Ars Sine Scientia Nihil Est,’ Gothic Theory of Architecture at the Cathedral of Milan,” *Art Bulletin* 31 (1949):84–111). There were, of course, a few qualified exceptions to the fluid planning methodology; at Florence Cathedral, it was required that the *capomaestro* adhere to the model established in 1367, and when in 1404 a deviation was discovered in the fabric, the architect had to restore it to the original specifications; this event only concerned certain overall dimensions, however, and all the while particulars of every kind—structural, material, decorative, etc.—continued to evolve (as in Brunelleschi's Cupola, Lantern, and Tribune Morte).

5. Only two of Alberti's securely documented works—S. Francesco in Rimini and S. Sebastiano in Mantua—were executed under his direction (insofar as they were completed), and as is well known, in both cases various changes were made during construction.

6. Choay (as in n. 2) appears to overlook this basic distinction, and extends the process of revision and fine-tuning through the entire process of building, failing to grasp Alberti's core notion of immutable, plenary design perfection and his divorce of planning and fabrication so at odds with real-world practice (75, 101). Regarding Howard Burns's intriguing assertion that Alberti's notion of the “mental character” of architectonic composition stems in part from a medieval topos (F. P. Fiore, ed., *Storia dell'architettura italiana: Il quattrocento* (Milan, 1998), p. 123), it is important to realize that Alberti radically alters and goes far beyond the medieval passages in question, if indeed they were present in his thinking; these and related passages will be discussed at length in *Building in Time*, as in n. 1.

which in turn meant adequate financing—full capitalization, in fact—and Alberti is explicit about both factors. One must “beware of taking anything on without the resources to bring it to completion,” he writes (II.2), continuing that with “a suitable source of financing” one might ensure that nothing will occur “during the course of construction to affect the speed with which the work is completed” (II.3). There follows a lengthy paragraph citing ancient examples of abundantly funded and speedily executed projects of grandiose scale, including the Temple of Jerusalem by Kings David and Solomon, Alexander's construction of a sizable town in seven days, Nebuchadnezzar's Temple of Bel of fifteen days' facture, Titus's wall forty stades long of three days' making, and so forth—examples to prompt imitation by modern builders (II.3).

But in the end, Alberti recognizes the limitations of such advice and good intentions, and proposes a fall-back position. Now more explicitly and vehemently addressing the issue of post-founding alterations than in any previous passage in his treatise, he writes:

The brevity of human life and the scale of the work ensure that scarcely any large building is ever completed by whoever begins it. While we presumptuous followers strive by all means to make some alteration, and take pride in it, as a result, something begun well by another is corrupted and finished badly. I feel that the intentions of the authors, the product of mature reflection, must be upheld. Those who began the work might have had some motives that escape you, even though you examine it long and thoroughly, and consider it fairly.⁷ (IX.11)

In this passage openly acknowledging the problematic presence of time in the making of architecture, Alberti reveals himself as fully aware of the protracted duration of contemporary monumental construction and as painfully cognizant of the fact that such duration relentlessly tends to produce categorically undesirable change. His reaction is to suppress this factor so manifestly disruptive of his absolutist aesthetics. Here, Alberti effectively urges the successor architect of an incomplete building to go back in time, return to the point at which perfection was achieved in design, fathom its subtleties, blindly maintain its

7. This effectively complements (and revises) the lines of the Prologue, “when we see some other person's building, we immediately look over and compare the individual dimensions, and to the best of our ability consider what might be taken away, added, or altered, to make it more elegant, and willingly we lend our advice. But if it has been well designed and properly executed, who would not look at it with great pleasure and joy.”

absolute authority, and continue work as if no time had elapsed—to collapse time to an unmoving point, thereby to build *outside time*. So powerful evidently was the hold of Alberti's own great invention—the idea of the immutably perfect “original” design created by the free intellect—on his own thinking, that no conceivable measure to preserve it, however delusive, not even the reversal or collapsing of time itself, was to be excluded.

Alberti's concept of time: its role in architecture

Having briefly traced the logic that leads Alberti to this position, whose singularity cannot be overemphasized, we need now to explore the complex ways that the doctrine of building outside time is embedded in his thought, by studying more widely the concept and role of time in the treatise. In *De re* Alberti manifests himself as being of two minds about time, certainly in its relation to architecture. Broadly speaking, these correspond to the two cultural constructions of time that intersected in the Renaissance (studied by Panofsky, LeGoff, and Quinones, among others): the ancient and medieval sense of time as positive, creative force; and the new negative vision of time the destroyer (known, of course, also to antiquity).⁸ How this double agency (sometimes complicated by such related Renaissance themes as time the revealer of truth) operates in Alberti's theory of architecture and time requires a careful dissection of its strands.

For the design phase of architecture, as we have seen, duration was entirely a positive factor, and one could not be too lavish in its use. It is worth underlining how Alberti, anxiously aware of perfection's extreme demands, repeatedly and in exhaustive detail urges the designer to take into account and repeatedly pursue every possible factor and contingency regarding a project—to fathom one's own creative and intellectual depths, to use drawings, sketches, and detailed models, to repeatedly consult with experts and indeed virtually anyone with an idea about the undertaking, to form the plan around distinct typological models and calibrate its dimensions by precisely derived proportional rules, to work out forms using exacting versions of ancient column and entablature sets—not at all algorithmically, but with a numbing recycling of infolded self-critical analysis:

I must urge you again and again, before embarking on the work, to weigh up the whole matter. . . . Using scale models, reexamine every part of your proposal two, three, four, seven—up to ten times . . . until from the very roots to the upper most tile there is nothing, concealed or open, large or small . . . which you have not thought out, thoroughly and at length. (IX.8)

All of this obviously consumed much time, but still one was not yet quite done: even with the most perfected scheme, when

you and the other experts are satisfied that there is no longer any cause for hesitation or opportunity for improvement, even then would I advise you not to let your desire to build impel you headlong into commencing the work. . . . Rather . . . allow the proposals to settle for awhile . . . and you will be able to judge the matter more thoroughly. For in every undertaking, time [as revealer of truth] brings to light many observations and considerations that might otherwise have escaped the notice of even the most capable of men. (II.1)

Similarly, regarding the actual fabrication of architecture Alberti does not deny, and indeed goes to great lengths to assert, the need for attentiveness to the knowledge and time-consuming procedures necessary for sound construction and fashioning of materials, which cannot be rushed without endangering the building's durability, as well as its beauty. Freshly quarried building stone, for example, requires two years' curing (II.8), timber somewhat less. There is a proper pace for every operation; walls, for example, should not be erected too quickly or too slowly but with “deliberation and proper care” (III.10). Interruptions inevitably occur, and the uncompleted fabric requires attention (such as the covering of exposed walls) (III.10). Indeed, the passage of considerable quantities of time is implicit in Alberti's sequential description of building operations—finding the site, surveying, excavating, making foundations, erecting walls, roofs, vaults, etc.—the very logic of construction being represented as oriented in and occupying time.

On the other hand, however, Alberti was acutely conscious of time as a negative force in the lives and works of men. Kept for the most part just below the surface of the text where the idea, we will see, is so highly active, this consciousness erupts on the opening pages of Book X, which nominally concerns restoration, hence decay, and ruin in the case of buildings wrecked beyond redemption. A whole paragraph dramatically conveys the destructive powers of time—how “Time conquers all things . . . all-conquering, all-ruining

8. E. Panofsky, “Father Time,” *Studies in Iconology* (New York, 1939), 69ff; Jacques LeGoff, “Au moyen age: Temps de l'église et temps du marchand,” *Annales*, E.S.C., 15 (1960), 415ff; R. J. Quinones, *The Renaissance Discovery of Time* (Cambridge, 1972).

Time"—provoking the indecorous outburst, "God help me, I sometimes cannot stomach it" (X.1). Time bears only a grim aspect here, as when further along Alberti writes:

They say that all that is harmful works though the passage of time; and that the worst is that which is felt last. (X.6)

Then, some pages later in a discussion of the changing lines of the seashore, a stream of associations vectoring towards temporality suddenly erupts in a digressive citation of Horace:

Everything Time ever brings out of earth into light
Time also buries, however splendid it is,
And takes back into the shade. (X.12)

In telling, poetic terms, Horace lays bare Alberti's profoundly conflicted apprehension of the agency of time, its dual powers of creation and destruction, but with a decided emphasis on the latter in the narrative thrust of the passage as well as in the two-to-one weighting of its lines. Time gives things birth, but it brings them death, and the finality of the latter looms ominously and oppressively.

Ever so keenly aware of the contingency of the becoming and being of architecture, Alberti envisions the existential trajectory of the worthy building that manages somehow to be realized: time is its enemy, and only that. In numerous passages he speaks of and advocates buildings meant to last "forever" (i.e., to *exist outside of time*) but he is acutely conscious of the probability that they will not so endure, being assailed by the same irresistible forces of time as the perfected original design itself. Woven through Books II and III (on materials and construction) are flashes and visions of sinking columns (II.5), dripping rain, ground water creeping up forming "abscesses . . . decayed matter . . . pustules" (III.6), the "assault of the weather" and the "onslaught of the elements" (III.7), the pathos of the unrelenting struggle of roofs against time (III.15), and, of course, simply "buildings that collapse through old age" (III.8). Good materials and construction provide a defense against time's corrosive power, as does, in Alberti's eyes, beauty itself, which he imagines deflecting the destructiveness of potential vandals and promoting conservation (VI.2). Beauty of materials, however, poses a problem regarding duration, for as he shrewdly observes, "It is not quite clear whether monuments intended to last forever should be built of noble or cheap material, because of the danger of theft" (VIII.3). Thus, he recommends the avoidance of coveted oversized stone blocks; advocates use of the pyramid-

shaped units "of *opus reticulatum* or of stone that cannot be put to any other use" thereby "evading greedy hands"; and in general counsels using stone that "is neither weak nor so elegant that it will be promptly desired or may easily be removed" (VIII.3). Again, Alberti provides certain specified remedies against decay, operations which essentially attempt, almost literally, to reverse the action of time. Indeed, Book X's nominal subject being "restoration," at the end of it the treatise closes with detailed instructions about healing cracked surfaces, substituting crumbling columns, righting leaning walls and masses—as if turning back the hands of time with each degree of the wall's slow return to vertical—exemplified by Alberti's description of his restoration project for Old St. Peter's (X.17). But given his fundamentally saturnine temporal outlook he most probably believed, deep down, that the venerable church was a monument like all others, doomed by time (which, in fact, it was).

For Alberti, it is only in the fashioning of the perfect design—the ideational stage of architecture—that duration is allowed a totally positive role, necessary, expansive, and unproblematic. Every other aspect of architecture's making and existence is deeply troubled by time. Fracture absolutely requires the appropriate quantum of time for each of its many operations—time giving birth—but this stubborn fact inherently threatens ruin. Adequate time for crafting can all too quickly become too much time, time that threatens the creator and his creation, time that might and eventually will bring those dreaded, ruinous changes to the immutable, plenary design. Indeed, time may bring not only alterations, but the even more dire collapse of the entire project, suddenly run out of steam. Hence Alberti's counter-strategy, which is to take as much time out of the post-ideational stage as possible, to compress time through the speed of construction that he repeatedly emphasizes by explicit instruction and the list of blazingly rapid, famous ancient works and their builders (Solomon, Alexander, Nebuchadnezzar, etc.). Finally, if all else fails here, and duration becomes inevitable, the ultimate and entirely novel antidote, we have seen, is to force a total *collapse* and *evacuation* of time passed, a return through time to the point zero of origination, in a revalorization and restored understanding and affirmation of the perfected original plans.

Reflecting on Alberti's ideational moves here, we realize that his time philosophy involves more than time's inherent creative-versus-destructive agency. A second conceptual layer is evident, which concerns not

the autonomous power of time itself, but rather, to the contrary, the imagined power of the individual to shape and control time. According to Alberti, man is capable of expanding time (for design), compressing it (for facture), and, most significantly, collapsing time and turning back the clock (against duration/change). Building outside time is centered on permanently *stopping* the architectural design clock at just the right moment. In the doctrine of *De re*, time can thus be controlled and instrumentalized by the architect and patron. Such a view was possible only within the much-studied, emergent new regime of time *practice* best known from LeGoff's analysis.⁹ This development runs in tandem with the time-as-creative/destructive shift occurring roughly contemporaneously, only it concerns not the agency of time but its possession. Time here is no longer exclusively owned by God or controlled by the Church as it had been through the long Middle Ages. The new "merchant's time" is the appropriated, regulated, and instrumentalized time of the individual entrepreneur. Although seemingly rooted in the risk-and-profit calculus demanded by finance and commerce, its logic applied to the self-empowered early-modern individual in general, who extends entrepreneurial logic to his own use of his own time (as well as the temporal discipline exacted on workers and subordinates). Scholars and humanists were in the forefront of this development. Alberti himself openly refers in *Della famiglia* to this new entitlement when he advises, "time is the most precious thing a man owns, waste not a moment of it." Similarly, in *Profugiorum ab aerumna* he urges the individual, as if he himself rather than fortune were in control of his future, to "work so that past and present will contribute to the times that have not yet come."¹⁰ Effectively, it is this new, modern outlook that we have discovered at work in Alberti's treatment of time in architecture; with it, the dark pessimism of the Renaissance vision of time as destroyer is countered by an alternative view, in which the empowered individual is charged with the regulation of the temporal dimension of his life and works, over which he tenuously claims a certain control.

9. LeGoff, as in n. 8.

10. *Op. volg.* (ed. G. Bonucci) I, 34; *Profugiorum ab aerumna* (tr. "Della tranquillità dell'animo"). Compare also the passage from *Della famiglia* cited by A. Grafton, *Leon Battista Alberti, Master Builder of the Italian Renaissance* (New York, 2000), p. 184, emphasizing the seizure of the right moment in time for a particular action (which I suggest would seem to take up the ancient principle of *Kairos*, or Opportunity, discussed by Panofsky, as in n. 8, 71ff).

The inviolability of perfection: abstraction and mimesis

Although the knot of ideas bundled in Alberti's doctrine of building outside time closely engages these multiple contextual and ideological strands of temporality, ultimately, as we have seen from the outset, it hinges on an idea of architectural perfection. At its core, the building-outside-time doctrine constructs an aesthetic of perfection that operates within a particular set of ideas about time. Having outlined the latter, I want to reconsider the terms of Alberti's aesthetic, which is by no means as transparent and unproblematic as we left it. Alberti's aesthetic doctrine—his notion of an architectural beauty so perfect that nothing can be added or taken away, and nothing about it changed but for the worse—has become so naturalized by our cultural world that, as I noted earlier, a certain effort is required to penetrate its smooth surface, grasp its intricate facture, and perceive its strangeness.

From the standpoint of this study, the main issue concerns not the idea of perfection itself but the *immutability* of the perfection that, for Alberti, constitutes beauty and worthiness in architectural design—indeed, as we have seen, not only in "design" but critically in the "body" of the physical building, *architecture*, whose final material perfection of form (ideally corresponding exactly, of course, to the design) was always Alberti's ultimate concern. Far from being spontaneous or self-evident, this was a radical new notion that Alberti worked hard to construct and to defend. It is not surprising that in this enterprise, as a humanist, he leans heavily on ancient authority. His most pointed defense of immutable perfection is his insistence that "We should follow Socrates' advice that something which can only be altered for the worse can be held to be perfect" (IV.2). But the invoking of Socrates—who is "speaking" generally, not of architecture and its demands, and is probably not really Socrates but Cicero in disguise¹¹—is only the tip of

11. Alberti does not explain or elaborate his claim to Plato as authority. Indeed, according to Rykwert et al (as cited in n. 1:380; n. 30) the "Platonic" reference seems to be nowhere in the dialogues, but instead reflects Cicero (as I elaborate below; see also *De oratore* III, vii.29). Their suggestion that Plato's *Leges* 5.746.c might also possibly be behind Alberti's remark seems to me counter to the sense of the passage, which in fact twice states the opposite, that whereas a design ideally should be comprehensive in its perfection, it need only be approximated in execution, which is subject to practical limitations: "But in dealing with all schemes for the future, the fairest plan, I think, is this—that the person who exhibits the pattern on which the undertaking is to be modeled should omit no detail of perfect beauty

Alberti's iceberg of ancient authority here. Although like most Renaissance humanists Alberti tended to regard antiquity as a unified phenomenon, he sometimes attempts distinctions between its phases where such differentiation might reinforce his argument. In one extended passage, he in effect claims that his aesthetic principle of immutable perfection, with its adjunct rules and beliefs, derives not merely diffusely or vaguely somehow from the ancient world at large. Rather, the origins of its diverse components can be precisely, hence convincingly identified as emerging syncretistically from both Greece and Rome: thereby his doctrine explicitly becomes a describable synthesis of these two architecture cultures (which does not preclude his relapsing into a more generalized view of the matter elsewhere in the book).

In his brief history of ancient architecture (VI.3) he characterizes the essential contributions of the diverse phases of antiquity. Following the raw grandeur of Asian construction, the philosophical and "ingenious" Greeks invented analytic perfectionism of design:

They inquired into the differences between buildings . . . overlooking nothing. They performed all manner of experiment, surveying and retracing the steps of Nature. Mixing equal with equal, straight with curved, light with shade, they considered whether a third combination might arise, as from the union of male and female. . . . They continued to consider each individual part in the minutest detail, how right agreed with left, vertical with horizontal, near with far. They added, took away, and adjusted greater to smaller, like to unlike, first to last . . . [etc.]. (VI.3)

This ideational design method of analytically interrelated elements subsequently is not only extended into Alberti's revision of Vitruvian Greek-invented orders (VII.6–9, IX.7) and other aspects of *all 'antica* architectural taxonomy; it clearly reappears in his design program as the "reasoned harmony of the parts"—with emphasis on the term "reasoned"—strongly echoing, for example, in his admonition (cited earlier) that:

and truth; but where any of them is impossible of realization, that particular detail he should omit and leave unexecuted, but contrive to execute instead whatever of the remaining details comes nearest to this and is by nature most closely akin to the right procedure; and he should allow the lawgiver to express his ideal completely; and when this is done, then and then only should they both consult together as to how far their proposals are expedient and how much of the legislation is impracticable. For the constructor of even the most trivial object, if he is to be of any merit, must make it in all points consistent with itself." I would suggest that possibly Alberti is masking his dependence on Cicero behind a Socrates/Plato screen.

we must therefore take great care to ensure that even the minutest elements are so arranged in their level, alignment, number, shape, and appearance, that right matches left, top matches bottom, adjacent matches adjacent, and equal matches equal. . . . (IX.7)

To the Greek analytic, abstract perfecting of design—architecture considered as rationally constituted form—according to Alberti, the worldly Romans added a second principle, the protean method of *mimesis*. They were, quite simply,

. . . the first who made their buildings very much like animals. (VI.3)

Although, as the reader will have noticed, the imitation of nature in fact already inhabits Alberti's Greece, he prefers here to pointedly identify it with Rome, if only to secure a complete Greco-Roman genealogy for his architectural principle (also, the building as body is explicitly spelled out not in Greek sources but in Vitruvius and Cicero). In any case, the "Roman" idea of building as body blossoms overtly and covertly throughout the book (generally not specified as "Roman"), beginning in the Prologue with "the building is a form of body," and appearing in Books I, II, III, VI, VII, and finally Book IX, where Alberti couldn't be more emphatic as he writes:

The great experts of antiquity . . . have instructed us that a building is very like an animal, and that Nature must be imitated when we delineate it. (IX.7)

More specifically concerning mimetic method (and echoing Vitruvius, 3.1.1) he notes that:

. . . just as the head, foot, and indeed any member must correspond to each other and to all the rest of the body in an animal, so in a building . . . the parts of the whole body must be so composed that they all correspond one to another. (VII.5)

Thus, behind the "Greek" analytic balancing of parts is the model of nature, whose natural bodies are inherently balanced (IX.6). One realizes that Alberti's argument becomes a bit tangled here (due in good part to the way, already mentioned, that generally he regards antiquity as a unity, including its organicism). In effect, his stages of the global design process are the reverse of his historical reading: Greece may have preceded Rome chronologically, but procedurally the Roman principle is axiomatic and precedes the Greek design method. Nature spontaneously creates perfect bodies; in imitation, man must rationally and with effort and time construct the perfect architecture-body design, and the "ingenious" Greeks showed how.

With Alberti, Italic-mimesis (together with Greek design method, its necessary supplement) thus becomes an architectural method that both mirrors nature in its making of bodies and imitates the primary qualities of the bodies that nature makes. Unlike Vitruvius, Alberti does not emphasize literal correspondences between the human figure and architectural shape and proportions. Moreover, whereas Vitruvian mimesis focuses on the human figure (e.g., the columns, the Vitruvian-man paradigm), Alberti (who in IX.7 suppresses most of Vitruvius's human-body connections) stresses architecture's bond with animate bodies in general (indirectly even with living trees, II.7), seeking ultimately to link it with all of nature and the cosmos. As he writes:

All that has been said our ancestors learned through observations of Nature herself . . . not without reason they declared that Nature, as the perfect generator of forms, should be their model. (IX.5)

This passage, it might be noted, is one of several that reveal how closely Alberti followed Cicero in his linkage of cosmos-nature-bodies-beauty-immutable perfection-art-architecture, even as he transformed such doctrines into a specialized philosophy and methodology for architecture (worth noting if only again to underline the contingency of Albertian doctrine as opposed to its common misrecognition as the veritable, natural truth about architecture). Cicero's well-known statement in *De oratore* III.45.180—a personal blend of classical Greek philosophy meant to ground his rhetorical theory—in fact seems to contain the seeds of Alberti's *entire* program as we have described it. The intricate spherical structure of the “universe . . . the whole ordered world of nature” forms a

system so powerful that a slight modification of it would make it impossible for it to hold together, and it is so beautiful that no lovelier vision is even imaginable.

Translating inviolate macrocosmic beauty into the immutable microcosmic perfection of the body and art, Cicero writes:

Now carry your mind to the form and figure of human beings or even of the other living creatures: you will discover that the body has no part added to its structure that is superfluous, and that its whole shape has the perfection of a work of art and not of accident.

As final intermediary links between cosmology and rhetorical theory Cicero proposes ships, trees (as in Alberti), and architecture. Alberti's strong dependence on Cicero—beyond even Vitruvius (who evidently was

insufficiently high-minded for him)—for the core ideas of his aesthetic as understood here could not be clearer. Indeed, Cicero appears not only to have provided the philosophical basis for Alberti's doctrine, but also the very idea of modeling (or claiming to model) a specialized theory on such a philosophy: in Cicero's case rhetoric, in Alberti's, architecture.

I believe it is critical to grasp here that for Alberti the body-building connection finally is not one of analogy or metaphor (although he obviously employs metaphor describing it, e.g., VII.5) but rather of identity: both the built building and the living body are equally part of nature and must abide by nature's general rules of morphogenesis. This Ciceronian spirit of identity pervades every building-body connection from general proportions to Alberti's quite strange anatomical analogies, whereby the building is almost literally a matter of bones, muscles, and skin.

Alberti's Ciceronian (-Vitruvian) building-as-body doctrine is articulated diffusely in an extremely complex and nuanced virtual argument (he at one point acknowledges its difficulty, IX.5) but the essential aspects for the present discussion are as follows. Nature produces an infinite variety of bodies. Each has its own logic of disposition, shape, and proportions, its own specific character, integrity, and perfection:

By studying in Nature the patterns both for whole bodies and for their individual parts, they [our ancestors] understood that at their very origins bodies do not consist of equal portions, with the result that some are slender, some fat, and others in between; and observing the great difference in purpose and intention between one building and another . . . they concluded that, by the same token each should be treated differently. (IX.5)

Most critically (and here Alberti's point reflects the “monster”-phobia most notably espoused by Horace), the individual body or species cannot be mixed with aspects of other bodies, or have their intrinsic form altered:

When even the smallest parts of a building are set in their proper place, they add charm; but when positioned somewhere strange, ignoble, or inappropriate, they will be devalued if inelegant, ruined if they are anything else. Look at Nature's own works: for if a puppy had an ass's ear on its forehead, or if someone had one huge foot, or one hand vast and the other tiny, he would look deformed. (IX.7)

Even more explicitly Alberti declares:

Every body consists entirely of parts that are fixed and individual; if these are removed, enlarged, reduced, or

transferred somewhere inappropriate, the very composition will be spoiled that gives the body its seemly appearance. (IX.5)

That is, each species and individual body—whether animal or building—has its own *immutable perfection of form*. Effectively, bodies so described provide concrete embodiments of Alberti's "Socratic" principle: in Alberti's manner of virtual argument they constitute the "missing" links between Socrates and architecture and between the inherently open-ended analytic finesse of the Greek design method and the desired perfected state of its products. It is thus in the ultimately Ciceronian building-as-body doctrine that Alberti most firmly grounds his fundamental, detemporalized architectural design theory of the *immutability of perfection*, which is so fundamental to his advocacy of building outside time.

Alberti's choice: metamorphosis and anti-metamorphosis

Fully legitimated within the antiquity-oriented episteme of humanism, Alberti's aesthetic is so powerfully constructed that it leads one—as it perhaps was meant to—almost to forget that antiquity offered the possibility of an alternative to his immutable perfection of form. Ovid's *Metamorphosis* opens with the famous line, "My mind is bent to tell of bodies changed into new forms" and near the end it proclaims that ". . . whatever is beneath the heavens change their forms, the earth and all that is within it." Between the initial change of chaos into cosmos and the concluding vision of Caesar transformed into a star (which remains Caesar), the metamorphic theme is imaginatively explored with a fluid diversity so extreme as to virtually defy categorization. Much of it is dark and violent (e.g., Arachne, the weaver turned into a spider), but by no means all, for as Leonard Barkan notes, "metamorphosis and movement among the layers of existence are by no means always destructive."¹² Not only is the ultimately Platonic linkage of macrocosm and microcosm made poetically fluid (as opposed to its rigidity in Alberti and his Ciceronian model) but within Ovid's microcosmic domain time is not always the destroyer nor are the changes it brings inevitably bad. The key, for us, is that in Ovid natural bodies—the center of Albertian mimetic morphogenesis—can become different natural bodies, with things added, subtracted, and altered, but, unlike

Alberti, not necessarily for the worse. We encounter "a creature which was but now a female and mated with a male is now a male herself" (II.393–394); "worms that weave their white cocoons on the leaves of trees . . . [and] change into funeral butterflies" (II.391); and most poignantly and pointedly, the incomparable Daphne, turned into a tree at the touch of Apollo's breath, totally transformed yet whose essential quality, her great beauty, survives: "Her gleaming beauty alone remained . . . even now in this new form Apollo loved her" (I.41).

To the contrary, Alberti's outlook in *De re* is quintessentially antimetamorphic. His organicism, compared with Ovid, is superficial. Beneath the surface it is rationalistic, even quasi mechanistic; at a certain level, the ideal building conjured by Alberti registers in the imagination as a fixed matrix-like assemblage of lucid but static quasi-Euclidean forms. Not only must the fully formed "body" remain rigidly unchanged "but for the worse," but Alberti also wants to keep all the bodily elements of his "bodies" rigidly discrete and intact, so much so that he devises and names not one but two overlapping mechanisms to ensure it. His somewhat redundantly defined (rhetoric-derived) principles of compartition (*partitio*) and *concinntitas* divide the body-building into discrete parts that stay discrete throughout the intensely studied ("Greek"-derived) process of harmonious combination:

Compartition . . . divides up the whole building into the parts by which it is articulated and integrates its every part . . . into a single harmonious work; (I.9)

and also,

It is the task and aim of *concinntitas* 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. . . . (IX.5)

If we ask why Alberti, in effect, was so deeply antimetamorphic in *De re*, a satisfactory answer does not easily appear. Certainly the Ovidian alternative throws into relief Alberti's acutely rationalist temperament, his adherence to a Platonic/Pythagorean, virtually Euclidian perspective on form, his dependence on a Ciceronian "perfection" rigidly linking architecture, nature, and cosmos (and, of course, we have hardly mentioned the role of number and exact proportion in the treatise). Yet why does Alberti, on matters so central to his subject, so violently—to the point of absolute silence—refuse the worldview represented by Ovid, which he knew (and in fact references), as did everyone through the middle ages and especially the Renaissance?

12. L. Barkan, *The Gods Made Flesh: Metamorphosis and the Pursuit of Paganism* (New Haven, 1986), p. 29.

(Such knowledge may have surreptitiously penetrated Alberti's theory: there is a possible conflicted crypto-metamorphic process at work in the way, at one level, Alberti wants to really transform animals, including their bones and muscles, into tectonic form.)

Ovid allows us to see that Alberti made a choice in constructing his cosmologically grounded theory of morphogenesis, his doctrine of the immutability of body-building design perfection—that he was not merely spontaneously affirming his own idea but probably also, at some level of cognition, rejecting an exceedingly well-known alternative philosophical position and its implications (along with current architectural methodology). Although it is unlikely that we can fully retrieve the causes of Alberti's choice—certainly not in the scope of this study—it is possible, I believe, to gain significant traction on this issue, not by asking what Alberti was thinking, but simply what important identifiable Albertian *purpose* the doctrine of building outside time, and concomitantly the rejection of Ovidianism, might have served. The evidence here involves Alberti's other writings on the visual arts—indeed, in a sense, all his writings—yet it is deeply grounded not only in tendencies of Alberti's thought but in his life, on a critical aspect of his identity and desire. This broader region of inquiry may help answer the question of why he arrived at his strange program of building outside time, and came to construct it so densely and to defend it so vigorously with Socrates-cum-Cicero, the Greeks, the Romans, mimesis, organicism, numerology, and his entire ideological apparatus.

Alberti, architecture, and the text

Intimations of Alberti's architectural doctrine can be detected in his earlier treatises on painting and sculpture. The punctualist reductionism of building-outside-time doctrine involves not only time but the spatiovisual dimensions of the building: his description of design perfection ultimately as a matter of balancing left against right, etc. (IX.7, cited above), arguably implies an image seen from a single, fixed viewpoint rather than a work fully existing and experienced freely in space, or at least emphasizes the former. This would mean that effectively Alberti's core theoretical program—whatever be its other models or connections that we have discussed—at a certain level strangely conflates the main principles of his earlier treatises on painting and sculpture. Like a statue, a building—which, like a statue, of course is like a body—must above all attain correct interrelationships and proportions between

all of its parts (a theory that Alberti critically attributes to “the architect” Vitruvius already in *della Pittura*);¹³ and like a painting, it is ideally to be seen and judged from a single, fixed viewpoint (not to mention also the way he initially categorizes architecture, in *della Pittura*, explicitly as a derivative of painting, a skill that he continues to see as essential in *De re*).¹⁴ As in both these media, moreover, architectural perfection is produced by a single artist working at a unitary moment of limited duration.

Yet despite these possible interconnections of visual media in Alberti, his ultimate model for architectural theory, or its aspects stressed here, may have come from outside these media altogether (which, we will find, would help account for its strangeness). Art historians have tended to see Alberti's career not only too narrowly but also in a manner that inverts his own enduring priorities (a bias recently addressed by Manfredo Tafuri, Christine Smith, and especially Anthony Grafton, among others).¹⁵ Although he became an architect and perhaps an amateur painter (and even sculptor) in midlife, and wrote extensively about the visual arts, it was as a humanist that he was trained and actively engaged all his life (and certainly up to the time of the writing of *De re*): the center of his intellect and imagination was always the written text, specifically the closed literary work (even much if not most of his architectural practice was conducted through letters, it seems, nor was his architecture treatise illustrated). The point of this observation—this iteration of well-established facts—is to raise the possibility that Alberti's atemporal conception of architecture was deeply dependent on, entangled with, finally dominated at its core by ideas and factors concerning the intrinsic nature of written texts (regardless of subject) and their authorship. It is not just that Alberti casually or automatically treats the architect as author and the building as text. Nor do I refer here to the above-mentioned and often noted tendency in Alberti's writings on the visual arts to transpose or metaphorically model them on Ciceronian and other antique rhetorical strategies and poetics. Something far more specific to his mentality and episteme is at work, relevant to the time/change question and to the issue of Alberti's rejection of Ovidianism.

13. L. B. Alberti, *On Painting*, tr. J. R. Spencer (Yale, 1966), p. 73.

14. *Ibid.*, p. 64.

15. M. Tafuri, “‘Cives esse non licere.’ Niccolò V e Leon Battista Alberti,” *Ricerca del Rinascimento* (Turin, 1992), pp. 33–88; C. Smith, *Architecture in the Culture of Early Humanism* (New York, 1992); A. Grafton, as in n. 7.

What I am getting at here involves several quite simple and obvious points. First, virtually all texts have (or were believed to have) single authors, and conversely, one is an author by virtue of having produced a complete text. Second, whereas in Alberti's day few artists and even fewer architects were famous, a great many writers indeed from antiquity to the present were. Moreover, no visual artist, not even Apelles or Giotto, or quite yet Brunelleschi in Florence, could begin to vie with Herodotus, Virgil, St. Augustine, or Dante, just to mention a preeminent few of the innumerable luminous literary figures known throughout the Christian world. Third, as a humanist Alberti was ineradicably inculcated with, even obsessed by the ideal of the sanctity and integrity of the original text; at the core of the humanist enterprise was the intensive labor of restoring ancient texts to their authentic, original state (as at the Vatican library, where Alberti produced much of *De re*). To do the opposite, to knowingly *alter* an original text would have been a virtually unthinkable transgression for a humanist. For a humanist like Alberti it was a far more categorical prohibition than warping the physical body of a sculpture or a building. Indeed, what was damaged by such transgression and loss was not only the text, but also its author as author, as is stressed by Petrarch in his famous "letters" to ancient authors.

I suggest that when Alberti came in midlife to formulate his architectural theory, he cast its core essentially in terms of what was most familiar and important to him, that is, in the quintessentially humanistic literary terms of these three points. Thus, beneath his sense of a building as a perspectively viewed body—"like" statue resided the more basic concept of the building as a text in its structure and the circumstances and rules of its production. To be sure, these included consultation with experts during the design process, in parallel to the humanists' procedure of collective emendation of drafts (stressed by Anthony Grafton¹⁶). But more fundamentally, like a literary text the building as text ultimately was created by a single author, whose final draft was sacrosanct and inviolable; actual construction effectively was akin to publication, which made the text/design a part of public space and experience. Through this act of creation, the writer/designer/originator became an author, potentially acquiring influence and fame through the renown of the inviolate, perfect text/building.

This interpretation leads us to notice what appears to be a telling choice of terms in the key passage of *De re* that prohibits change, which I repeat:

The brevity of human life and the scale of the work ensure that scarcely any large building is ever completed by whoever begins it. While we presumptuous followers strive by all means to make some alteration, and take pride in it, as a result, something begun well by another is corrupted and finished badly. I feel that the intentions of the authors [*auctorum*], the product of mature reflection, must be upheld. Those who began the work might have had some motives that escape you, even though you examine it long and thoroughly, and consider it fairly.

Alberti could have termed the inventor of the pure, perfect design the "architect," or the "first architect," etc. Instead Alberti pronounced the building's designer *auctor*—that is (following the usage of *auctor* in ancient texts and by Alberti himself elsewhere) he put him in the category of originators, which included not only the founders of cities and buildings but the paradigmatic creative protagonist, the writer (or *scriptor*); not all architects were *auctores*, whereas virtually all writers were. By calling the building's designer *auctor* Alberti—given the biographical context and my previous observations—would appear to have been associating him with writers and all that pertained to that status (Alberti thereby may be said to have invented the author-function for architecture here, in the Foucauldian sense). In other words, this choice of terminology, I suggest, far from being innocent implicitly grounds Alberti's ideas about architecture in his experience and humanist preoccupation with literature and its authors—a referentiality also resident in the way "alteration" here signifies "corruption." Effectively this passage as a whole can be seen to transmute into architectural terms the humanist program for reclaiming the original text: two kinds of architect/builder are present, the bad one who "corrupts" the original—kin to those miscreant agents who corrupted ancient texts through the medieval centuries—and the good (humanist-) architect who (persuaded by Alberti) studies the building text long and hard, working his way back to its "original intentions," the original form of the primary figure, the "author."

Here we have a viable answer to the question about Alberti's choice to reject metamorphosis, which was not only a literary-theoretical choice offered by antiquity but also ideologically close to the implications of medieval and contemporary architectural practice.¹⁷ It is now

16. A. Grafton, as in n. 10, 53ff.

17. This association is explained in *Building-in-Time*, as in n. 1.

clear that given his core identity as a practicing humanist and author of written texts, he effectively *had no choice* regarding Ovid, because for Alberti the *building ultimately was more like a book than a body*. Hence a building could not emulate the metamorphic Ovidian body but only an immutably perfect—quasi-Platonic/Ciceronian—body built outside of time. Put another way, one might imagine that strictly as a body architecture could conceivably be Ovidian for Alberti, but a text categorically could never be, and so neither could an architecture be apprehended as authored in the manner of a single-author text. So committed was he to this view that the Ovidian possibility may have been unthinkable for Alberti: the choice would have been made for him, as it were, in his subconscious.

If we now review our final reading of Alberti's theory of "building outside time" and its background in his intellectual and professional biography, it appears that—being as profoundly literary and textual in experience and sensibility as he was removed from architecture and its current practice—he was dominated by his core *metier* and intertextually seduced by his own powerful theorizing over a two-decade period. The more he studied, thought, and wrote about the arts, and despite all he learned of architectural lore and technique, the further the process came to distance him, at least in one fundamental sphere, from the tangible, practical realities of architecture, which he soon was to know better through his engagement with actual practice and its contingencies. Indeed, just as he was about to enter practice toward 1450, his concept of an ideal architecture entered an airless, timeless Platonic realm. Alberti pretends to the deepest philosophy in his aesthetic program for architecture, but within his lucid, elegant formulations about an absolute, plenary, immutable, and recuperable perfection, there lurks a fierce underlayer of irrationalism, a near total rejection of certain fundamental architectural realities, which we now can begin to understand as the result of the inherent contradictions and dangers of theorizing about architecture as if it were painting, sculpture, and, most critically, writing and humanist textual production and recuperation.

Yet one also senses a touch of profound frustration, indeed melancholy in Alberti's scheme for building outside time, resident in the unattainability of his object of architectural desire, an impossibility of consummation that no level of self-deception could have completely masked from his consciousness. In his heart Alberti knew that buildings would not be completed as begun, that successor architects could not return to the original

even if they wanted to, for in current practice, as we learned earlier, that sanctified "original" never completely existed as a comprehensive paper design or three-dimensional model. The "original" only had the potential to come into being with the building itself—in time—thereby dislocating and subverting the very notion of "the original" held dear by humanists. In architecture this entity could not really be recuperated in the way that texts were thought to be, through linguistic analysis and comparative philology, dependent on the survival of multiple versions and other firm points of reference, resources obviously missing in architectural production. In this light Alberti's turn from theory to active architectural practice at about this moment may have involved not merely a progressive rapprochement with the visual arts by a humanist, or another aspect of his many-sided pursuit of employment and fame. Perhaps it was also an attempted escape from a regressive abyss of aesthetic desire—from the impossibility of building outside time.