

## Spinoza and architectural thinking

Beth Lord

Spinoza did not write a treatise on architecture, but I would like to consider what he might have said in it if he did. Spinoza makes few remarks about architecture, and these remarks do not appear to reveal any thoughts about it distinct from his views on other material arts.<sup>1</sup> Yet Spinoza occasionally uses architectural examples, and these examples, understood in the context of his metaphysics and theory of knowledge, reveal the architect to be a distinctive kind of human thinker. In this paper I will explore the kind of thinking the architect does, first by demonstrating that Spinoza distinguishes the architect's adequate way of conceiving a building from inadequate ways of imagining one, and second by considering how Spinoza might have understood the architect to translate that adequate thinking into the practice of building and construction. The paper therefore has an interpretive part, in which I set out what Spinoza seems to believe about how the architect thinks, and an extrapolative part, in which I consider what we can legitimately surmise about Spinoza's view on architectural practice.

The architect is a recurrent character in the history of philosophy. The vision of the architect as a semi-divine thinker of eternal ideas goes back to Plato's *Timaeus*: just as the demiurge who constructs the universe works from an eternal, divine model to impose mathematical and geometrical order onto chaos, the architect draws on eternal ideas of number and proportion to impose form onto matter. This vision corresponds to an understanding of architectural skill as based on knowledge of geometry and proportion. Due to his special intellectual access to divine ideas, the architect can build buildings that harmonize with the proportions of the cosmos. Renaissance theories of architecture drew

substantially on this Platonic vision, most prominently that of Andrea Palladio, who understood the construction of a building as the perfect realization of an ideal prototype: a prototype that could be instantiated repeatedly, almost anywhere.<sup>2</sup> In the early modern period the architect becomes the prime example of the rational thinker, skilled not only in deploying the rules of proportion, but also in the mechanical science required to realize those rules in secure and lasting structures.<sup>3</sup> In the *Meditations* Descartes famously uses the metaphor of building to present his endeavour to find true knowledge. For Descartes, the architect – and analogously, the meditator – is not so much a visionary as a constructor who builds a secure and lasting “edifice” based on sound foundations.<sup>4</sup>

Spinoza writes at a time when the role of the architect is gradually being reconceived. The architect is a geometer who understands eternal truths, but increasingly also a “structural engineer” who relies on practical knowledge of materials, their relations, and their effects, in particular environments.<sup>5</sup> Accordingly, in Spinoza’s architectural examples we find traces of the Platonic notion that the architect has a god-like knowledge of true ideas, and the modern concept of the architect as an expert in mechanics. Spinoza’s naturalism makes it easy to reconcile these concepts: since God is equivalent to nature, all true ideas are true ideas *of nature*, and the architect’s superior grasp of true ideas entails superior natural and scientific understanding. Buildings, like all human artefacts, are “part of nature” (E IVP4)<sup>6</sup> and follow necessarily, like all finite modes, from God’s essence (E IP33).<sup>7</sup> Meanwhile, Spinoza’s assertion of the equivalence of mind and body (E IIP7S) mean that the architect cannot be conceived strictly in terms of mental intention. The mind does not “determine and guide” the body to build a temple (E IIP2S): the body’s action is equal to and proceeds isometrically with the mind’s thinking. The architect is as much concerned with physical experience and experiment – both included within “imaginative” thinking, for Spinoza – as he is with eternal ideas.

Thus for Spinoza, the architect is neither a Platonic demiurge marked out by intuitive thinking, nor a Cartesian edifice-builder distinguished by rational method. The architect is a special kind of thinker who integrates imaginative, rational, and intuitive thinking, and the parallel forms of bodily action, to understand and construct a building in its causal connections to its component materials, environment, and users. To understand the true idea of a building is to understand its embeddedness in the world and its functional place in a network of modal relations. The architect's art is to integrate the eternal into the durational, and to integrate adequate thinking into the world of inadequate ideas and modal interrelations.

In the first two sections of the paper, I interpret Spinoza's architectural examples to try to discern Spinoza's view about architectural thinking. The first section addresses imaginative, or inadequate architectural thinking; the second section addresses rational and intuitive, or adequate, architectural thinking. The third section of the paper is the extrapolative part, where I consider what Spinoza's philosophy allows us to think about architectural practice.

### **Imaginative architectural thinking**

In *Ethics* IIP40S2 Spinoza sets out his three kinds of knowledge.<sup>8</sup> *Imagination* encompasses sense perception, feeling, empirical knowledge, associations, and knowledge gained from signs. Imagination involves inadequate ideas, and insofar as we conceive inadequately, we are more subject to the passions (E IIP1C). *Reason* is based on adequate (that is, true) ideas of the properties of things and the adequate ideas we can deduce from them, and on notions of properties common to all bodies. *Intuitive knowledge* "proceeds from an adequate idea of the formal essence of certain attributes of God to the adequate knowledge of the essence of things" (E IIP40S2). It is notoriously unclear quite what it means to grasp

the essences of things in this way, but Spinoza explains that when we know intuitively, we start with adequate knowledge of God's essence and deduce perfectly adequate knowledge from it (E IIP47S; VP20S). (By contrast, when we know rationally, we start with adequate ideas of the properties of things and deduce imperfectly adequate knowledge from them. Intuitive knowledge of a thing is "perfectly adequate" because, being deduced from the essence of God, it is the complete idea of that thing, whereas rational knowledge of the same thing is "imperfectly adequate" because, being based on just a few properties, it is incomplete.<sup>9</sup>) The three kinds of knowledge are distinguished for the sake of analysis, but Spinoza is clear that our way of perceiving and knowing the world necessarily involves all three. Everyone has some adequate ideas, and thinks rationally to some extent; everyone has sense perceptions and emotions, and thinks imaginatively to some extent. Since every human mind has "an adequate knowledge of God's eternal and infinite essence" (E IIP47), every human mind has the foundation for intuitive knowledge, and is able to intuit in proportion to the adequate ideas it has been able to grasp and the extent to which its mind has been able to increase its eternal part (E VP10S; VP31; VP39).<sup>10</sup>

A building may be conceived in any of the three ways, or through a combination of them. There is a strictly imaginative way of approaching architecture. Imaginative architectural thinking is based on experience, emotions, and imagined benefits. I may, to draw on an example Spinoza uses in a letter to de Vries, "construct in my mind some temple which I want to build" (Ep. 9),<sup>11</sup> based on buildings I have seen and visited, and on diagrams and written descriptions. My envisioned temple will be based on how I want it to look and what I imagine it will be used for. It may be based on an ideal of what a temple is: a perfect form that I have in mind. Spinoza alludes to this kind of thinking in the Preface to *Ethics* Part IV:

If someone has decided to make something, and has finished it, then he will call this thing perfect – and so will anyone who rightly knows, or thinks he knows, the mind and purpose of the author of the work. For example, if someone sees a work (which I suppose to be not yet completed), and he knows that the purpose of the author of that work is to build a house, he will say that it is imperfect. On the other hand, he will call it perfect as soon as he sees that the work has been carried through to the end which its author had decided to give it. But if someone sees a work whose like he has never seen, and does not know the mind of its maker, he will, of course, not be able to know whether that work is perfect or imperfect. And this seems to have been the first meaning of these words.

But after men began to form universal ideas, and devise models of houses, buildings, towers, and the like, and to prefer some models of things to others, it came about that each one called perfect what he saw agreed with the universal idea he had formed of this kind of thing, and imperfect, what he saw agreed less with the model he had conceived, even though its maker thought he had entirely finished it.

In this passage, an observer judges a house to be imperfect because it fails to correspond to the builder's purpose, or to his own ideal of what a house should look like. As Spinoza explains later in the Preface, no object truly (that is, essentially) has a purpose (see also E IApp.). What we believe to be its final cause ("habitation", in the case of the house) is really an efficient cause: its builder's "appetite to build a house" based on his imagining "the conveniences of domestic life" (E IVPref.). To judge a house according to whether it fulfils a final cause is confused thinking. This is related to the confused thinking we do when we use universal terms. The universal term "House" is based on our amassing and mixing together

multiple images of empirically similar buildings, resulting in an inadequate idea that is unclear and indistinct (see E IIP40S1). There is no Platonic form of “House” that we draw on, only a confused empirical amalgam. “House”, as a universal, provides a poor model for judging the perfection of any particular house.

Spinoza evidently takes this to be a degraded way to think about architecture, as well as the wrong way to understand perfection. For Spinoza (as for Descartes) the “perfection” of a thing is its “reality”, in the sense of the qualitative being of its essence (E IID6). While each thing is perfect in itself (E IP33S2), one thing can nevertheless be more perfect than another, in that its essence has more qualities. A thing has more properties “the more reality the essence of the defined thing involves” (E IP16Dem.). In the *Treatise on the Emendation of the Intellect*, Spinoza notes that the idea of a temple is more perfect than the idea of a chapel, and the temple architect is more admirable than the chapel architect, presumably because a temple is more complex and has more functions (TIE 108).<sup>12</sup> A building’s true perfection consists in its essence as it follows from God’s nature. The perfection of a thing is metaphysical, and is “to be judged solely from [its] nature” (E IApp.); it is not to be judged according to human normative values, purposes or ideals.<sup>13</sup>

Spinoza would therefore deem inadequate the theologian’s judgment that a present-day temple is “perfect” insofar as it successfully replicates a Biblical description. His allusions to this point are not only intended to illustrate a metaphysical point, for this was a theologically loaded issue in the seventeenth-century Dutch Republic: scholars debated the historical actuality and contemporary constructability of the temples described in great detail in the Old Testament.<sup>14</sup> Several Dutch church designs drew on models of historic temples, and Spinoza owned a copy of one text attempting such a reconstruction.<sup>15</sup> Spinoza’s remarks in the *Theological-Political Treatise* and letter to de Vries reveal that he believed there to be a gulf between these imaginative architectural fancies and true architectural ideas.

Spinoza makes several remarks about temples. Most prominently, he discusses the importance of the temple to the Hebrew state in the time of Moses (TTP ch. 17).<sup>16</sup> In the Hebrew state, the aims of religion and the state were the same – to make the population obey the divine law to “love one’s neighbour” through laws and social practices. The tabernacle, and later, the temple, were constructed as sites of the divine and civic authority held by God. As the place in which God’s laws were received, interpreted, and sometimes enacted, the temple was the site of “the continual practice of obedience” that was key to the state’s success and stability (TTP ch. 17, G III/217). It was by virtue of the temple that the diverse tribes were fellow citizens, joined together by a social contract under a unified religious and political sovereign. The disruption of this unity by the assertion of the arbitrary power of a monarch and the replacement of the temple with a royal palace – a mere symbol of authority, rather than the site of practicing obedience – characterized the demise of the Hebrew state.

The temple reconstructions of the seventeenth-century Dutch Republic had a strictly religious function: they were, at best, sites of worship, stripped of their political purpose. A reconstructed temple is therefore a simulacrum. Furthermore, to believe that a temple could be reconstructed on the basis of Biblical texts is to accord those texts a degree of scientific accuracy for which there is no justification. Spinoza stresses that Biblical temple descriptions are not literally accurate: God’s revelation of the temple design to Solomon, as described in I Kings, does not provide precise mathematical specifications, for “we are not bound to believe that Solomon was a Mathematician” (TTP ch. 2; G III/36). God explained the temple to Solomon in terms he would understand, not in scientific terms that would enable Spinoza’s contemporaries to reconstruct it. The purpose of the temple descriptions is spiritual: they may be constructed in the imagination, like prophetic stories, but do not provide blueprints for contemporary building. The temple descriptions are fictions, inadequate (though potentially useful) ways of perceiving and presenting the world.<sup>17</sup>

Spinoza was one of a number of thinkers who rejected the reconstructability of Old Testament temple designs. This typically accompanied a critique of theological authority and an insistence on the distinction between theological and scientific spheres of knowledge. Spinoza argues for this distinction in chapters 14 and 15 of the TTP. He indicates that temple-building is a scientific and not a spiritual pursuit when he notes that Bezalel – the follower of Moses instructed to build the tabernacle – was inspired by the spirit of God strictly in the sense of being bestowed with architectural skill (TTP ch. 1; G III/24). Others made the connection even more explicit. One seventeenth-century Dutch architect, Willem Goeree, was denounced as a Spinozist for stating that theologians, who are not authorities on buildings, should leave the construction of temples to those with architectural expertise.<sup>18</sup>

### **Rational and intuitive architectural thinking**

What is it to have architectural expertise, on Spinoza's view? The skilled architect evidently does not begin with an image, ideal, or description of a building. Rather, the architect has a true idea of a building that has not been built yet. All thinkers grasp some true ideas, but Spinoza indicates that the architect is unusual in having true ideas of non-existent things. A passage of the *Treatise on the Emendation of the Intellect* highlights this aspect of the architect's skill:

As for what constitutes the form of the true, it is certain that a true thought is distinguished from a false one not only by an extrinsic, but chiefly by an intrinsic denomination. For if some architect conceives a building in orderly fashion, then although such a building never existed, and even never will exist, still the thought of it is true, and the thought is the same, whether the building exists or not. On the other hand, if someone says, for example, that Peter exists, and nevertheless does not know that Peter exists, that thought, in

respect to him is false, or, if you prefer, not true, even though Peter really exists. Nor is this statement, Peter exists, true, except in respect to him who knows certainly that Peter exists. (TIE 69)

In this passage, Spinoza indicates that the truth of a true thought does not consist in its “extrinsic” relation to an actually existing object, but in a certain “intrinsic denomination”. He uses the same terminology in *Ethics* IID4, where he defines an adequate idea as having “all the properties, or intrinsic denominations of a true idea”, and explains, “I say intrinsic to exclude what is extrinsic, namely, the agreement of the idea with its object”. In other words, a true idea is true in some essential way, and is not made true by its correspondence to an actual object. An architect can have the true thought of a non-existent building, as long as that building is conceived “in orderly fashion”.

For Spinoza, a human mind forms adequate ideas by virtue of being part of God’s infinite intellect. As he explains in *Ethics* IIP11C, the thoughts that the human mind thinks are, strictly speaking, God’s ideas. God’s ideas are clear and distinct in a human mind insofar as they follow exclusively and directly from the idea that that mind is. God’s ideas are partial and confused in a human mind insofar as they follow partially from that mind, and partially from the ideas of things external to it, with which it interacts. This is the basis for Spinoza’s distinction between adequate and inadequate knowledge. From the human perspective, adequate ideas are “intrinsic” to the essence of our mind, which is constituted by God (E IIP34Dem.) and are understood clearly and distinctly. Inadequate ideas arise as the mind is affected by ideas of things external to it: these ideas have an “extrinsic” relation to those things – they do not come directly from the essences of those things, but from our perceptual representations of them – and are understood partially and confusedly. From God’s perspective, all ideas are true ideas, and, because what God conceives is “equal” to what God brings into being (E IIP7C), all true ideas “agree entirely with their objects” (E IIP32Dem.).

For God, the adequate/inadequate and intrinsic/extrinsic distinctions do not hold: all ideas are adequately conceived, are intrinsic to the essence of God's mind, and correspond to some object in God's attributes.<sup>19</sup>

Thus a true idea is true intrinsically, and necessarily corresponds to its formal object in God. The *extrinsic* correspondence of a human being's inadequate idea to a perceived object, by contrast, does not establish the truth of the idea. The architect, it seems, grasps the intrinsically true idea of a building that exists as a formal object in God but does not exist in actuality. By contrast, the person who claims (on the basis of perceptual evidence) that Peter exists does not have a true idea, even though Peter actually exists. According to Spinoza's theory of ideas, since Peter actually exists, God must have a true idea of Peter, but this true idea is only inadequately and imaginatively accessed through perception.

This passage draws on the distinction, which Spinoza inherits from Descartes and Scholasticism, between the durational existence and the "being of essence" (*esse essentiae*) of a thing. In the *Appendix Containing Metaphysical Thoughts*, Spinoza defines being of essence as "that manner in which created things are comprehended in the attributes of God" (CM 1.2).<sup>20</sup> He adds that essences are eternal and have being "outside the intellect", and he explains that a substance such as God contains the being of essence of its non-existent modes (CM 1.2).<sup>21</sup> A "real being" need not exist *actually* at any given point in time, but its being of essence does inhere in God's attributes.<sup>22</sup> This point is clear from *Ethics* IIP8 and its corollary:

P8: The ideas of singular things, or of modes, that do not exist must be comprehended in God's infinite idea in the same way as the formal essences of the singular things, or modes, are contained in God's attributes. [...]

Cor.: From this it follows that so long as singular things do not exist, except insofar as they are comprehended in God's attributes, their objective being, or

ideas, do not exist except insofar as God's infinite idea exists. And when singular things are said to exist, not only insofar as they are comprehended in God's attributes, but insofar also as they are said to have duration, their ideas also involve the existence through which they are said to have duration.

God has ideas of singular things that do not exist, the formal essences of which are contained in some way in God's attributes. This explains the necessary correspondence between God's ideas and the objects of those ideas: while a building may not exist durationally, if it is a real being, then the object of its idea does inhere essentially in God's attributes.

Since the building does not "involve the existence through which [things] are said to have duration" (E IIP8C),<sup>23</sup> the architect's true idea must be of the eternal essence of the building. An idea of the durational building would include reference to the time and place of the physical building's existence, and would develop in time, as the relational properties of the building become known. The idea of the building's eternal essence, by contrast, comprehends how the essential properties of the building follow from God's attributes. Perhaps this is what Spinoza means when he says the architect conceives the building "in orderly fashion".<sup>24</sup> This is supported by the distinction Spinoza draws between durational and eternal thinking at *Ethics* VP29S:

We conceive things as actual in two ways: either insofar as we conceive them to exist in relation to a certain time and place, or insofar as we conceive them to be contained in God and to follow from the necessity of the divine nature. But the things we conceive in this second way as true, *or* real, we conceive under a species of eternity [*sub specie aeternitatis*], and their ideas involve the eternal and infinite essence of God.

Evidently, the architect's idea of the non-existent building is conceived *sub specie aeternitatis*. It is therefore conceived through reason or intuition, and its metaphysical causal

story – the way that it follows from God’s attributes – is adequately understood. The architect understands how the essence of this physical object follows from God’s essence as extended being.

Spinoza strongly suggests that the architect has intuitive, and not merely rational, knowledge. Rational knowledge is defined as “perceiv[ing] many things and form[ing] universal notions [...] from the fact that we have common notions and adequate ideas of the properties of things” (E IIP40S1-2). Clearly, the architect’s adequate idea is not an idea of a common property of things, and is not acquired in the inferential manner that Spinoza sets out in his doctrine of the common notions. It is the fully-formed idea of an eternal essence, conceived to follow from God’s essence. The architect’s thinking appears to be an instance of intuitive thinking as defined in the *Ethics*, proceeding “from an adequate idea of the formal essence of certain attributes of God to the adequate knowledge of the essence of things” (E IIP40S2).

It is, however, more helpful to stress the blended nature of the architect’s thinking. Spinoza is clear that intuitive knowledge builds on rational knowledge: we are better able to think intuitively the more rational ideas we manage to acquire. In the earlier TIE, where the architect example occurs, Spinoza posits a single rational-intuitive way of conceiving a thing through its essence or through knowledge of its proximate cause (TIE 19, 22). This way of thinking is illustrated by arithmetical and geometrical examples in which a suitably practiced mind sees the truth “without going through any procedure” (TIE 24). Since the other kinds of knowledge described in the TIE are empirical or inferential (and inadequate), Spinoza must understand the architect’s thinking to be an instance of this rational-intuitive mode. Conceiving in this way rests on definitions, for a complete definition “must explain the inmost essence of the thing” and includes the thing’s proximate cause; it is only by understanding a thing’s definition that we can understand its properties (TIE 95; cf. E IP8S2).

The human mind can truly conceive a geometrical figure from its true definition and proximate cause, and can deduce its essential properties, even if the figure does not exist. Similarly, the human mind can truly conceive a building from its true definition and proximate cause (i.e. God's essence). An unbuilt building is effectively a complex geometrical idea, made up of lines, angles, and figures; to know its definition is to grasp it in its essence and deduce its essential properties.

The predominant mode of thinking about building design in the seventeenth century was still geometrical, as it was in ancient and Renaissance texts. While the definition of a building is more complex than the definition of a triangle, and not as readily graspable by the non-expert mind, the two do not differ in kind. As Viljanen argues, geometry is Spinoza's model for the ontological structure of any thing, and for our adequate knowledge of it (17-19). God too has a definition, as an infinite substance of infinite attributes (E ID6). Spinoza argues that "infinitely many things in infinitely many modes" follow from the divine nature in exactly the same way as from the essence of a triangle it follows that its three angles equal two right angles (E IP16Dem.; IP17S); and he holds that "the human mind has an adequate knowledge of God's eternal and infinite essence" (E IIP47). If the human mind can grasp the definition of God, a suitably practiced mind can grasp the definition of a complex geometrical entity like a building.

In his letter to de Vries, Spinoza reiterates that to adequately understand a building is to understand its essence and definition. In contrast to an imaginary temple, there exists in God a true idea of Solomon's temple. That there is a true idea of the temple entails that there is a true definition of it in its essence. This discussion arises because de Vries, having read an early draft of the *Ethics*, asks Spinoza whether his definitions are in all cases true (Ep. 8). Spinoza responds:

I see that you are in these perplexities because you do not distinguish between different kinds of definition – between one which serves to explain a thing whose essence only is sought, as the only thing there is doubt about, and one which is proposed only to be examined. For because the former has a determinate object, it ought to be true. But the latter does not require this.

For example, if someone asks me for a description of the Temple of Solomon, I ought to give him a true description of the temple unless I want to talk nonsense to him. But if I have constructed in my mind some temple which I want to build, and if I infer from its description that I must buy land of such a kind and so many thousand stones and other materials, will anyone in his right mind tell me that I have drawn a bad conclusion because I have perhaps used a false definition? Or will anyone require me to prove my definition? To do so would be to tell me that I have not conceived what I have conceived, or to require me to prove that I have conceived what I have conceived. Surely this is trifling.

So a definition either explains a thing as it is outside the intellect – and then it ought to be true and to differ from a proposition or axiom only in that a definition is concerned solely with the essences of things or of their affections [...] – or else it explains a thing as we conceive it or can conceive it [...]. It need not, like an axiom, be conceived as true. (Ep. 9, p. 194)

This difficult passage has been subject to much critical discussion, as it seems to suggest that Spinoza changed his mind about the correspondence theory of truth. TIE 69, along with several passages of the *Ethics*, denies that an idea is true by virtue of its correspondence to an actually existing object. But this letter appears to state that a true idea with its definition must correspond to an actual thing: in other words, that the idea of Solomon's temple is true

because Solomon's temple existed historically.<sup>25</sup> While Spinoza does not assert the actual or historical existence of the temple, he does state that the definition that explains its essence ought to be true, on the grounds that the temple is a "determinate object" that "exists outside the intellect". The idea of a non-existent building is offered as a contrast: it is posited to be imaginary, and subject to a conjectural working definition rather than a true definition. Spinoza seems to imply that the actual existence of a thing is key to a true definition of its essence.

However, the specific example Spinoza uses gives us grounds to doubt this interpretation of the passage. As we have seen, the actual existence of biblical temples was a contentious matter; Spinoza cannot have selected the example of Solomon's temple by accident. If his purpose were to support a correspondence theory of truth with an example of an idea that corresponds to an actual object, Solomon's temple would be a particularly bad one, since its actual existence was not known with certainty. The only basis for such knowledge available in the seventeenth century was the account of the Old Testament. Spinoza would not accept this as evidence of the temple's existence, given his beliefs that written testimony yields uncertain knowledge, that the Bible is not a source of historical or scientific truth, and that empirical evidence is inadequate for true knowledge of existence (as in the case of Peter, above). We cannot, by Spinoza's lights, have certain knowledge that Solomon's temple existed, or that any historical temple corresponded to the description of I Kings; nor does he think any future temple could be constructed on the basis of that description. Surely Spinoza cannot intend the *actual existence* of the temple to carry much weight.

There is a more important difference between Solomon's temple and the imaginary one. Spinoza discusses the former in terms of a "real being" and the latter in terms of a "being of reason". This distinction is set out in the *Appendix Containing Metaphysical*

*Thoughts*, published in the same year that the letter was written. Solomon's temple fits the description of a "real being": it has an essence, there is a true idea of it, and it has a determinate object that exists outside the intellect. Recall that a real being need not actually exist: a thing whose "being of essence" is contained in God's attributes may be said to be a determinate object in that it is the object of a true idea. Spinoza explicitly states in the *Appendix* that the essence of a non-existent thing has "being outside the intellect", meaning that it has some being in God's attributes beyond the attribute of thought. This is the kind of being he attributes to Solomon's temple in the letter. Solomon's temple is a "real being": its essence is in God's attributes as a determinate object outside of God's intellect. It is the correspondence of this essence to its idea that makes the idea true and yields a true definition, exactly as Spinoza stated of the non-existent building in the TIE. Solomon's temple may or may not have existed historically; its actual existence is irrelevant to the truth of its idea and definition. Solomon's temple is a true idea that corresponds to some being of essence, like the architect's idea of a building at TIE 69.

The image of a temple that a person imagines, as something he might like to build, is characterized, by contrast, in the terms of a "being of reason":

[A] Being of reason is nothing but a mode of thinking, which helps us to more easily *retain, explain, and imagine* the things we have understood. [... T]hese modes of thinking are not ideas of things, and can not in any way be classed as ideas. So they also have no object that exists necessarily, or can exist. (CM 1.1)

The imaginary temple of letter 9 fits this description: it is conjured up in thought and set out for the purposes of examination and explanation. The inadequacy of this idea does not prevent a person from setting out imaginatively what he means the temple to be, its spatial requirements and construction materials. A theologian may construct an image of a temple

from reading I Kings or Ezekiel, and he may set out conjectural definitions, descriptions and drawings of a reconstructed temple. But the theologian does not have a true idea of the temple, and his description should not be taken to be a true definition. This kind of definition is put forward for examination. It does not describe the essence of any thing because there is no thing: there is no real being in God's attributes.

All of these examples, briefly mentioned and spread over several texts, add up to a remarkably consistent view about architectural thinking. The thinking of the skilled architect originates with a true idea. True ideas necessarily correspond to some "being of essence", but do not necessarily correspond to any actual existence. A building understood in this way is understood in its true definition, from which its geometrical properties can be deduced. The architect may have many true ideas that she never sees constructed. By contrast, the thinking of the architect-pretend originates with images. The theologian who imagines he can reconstruct Solomon's temple on the basis of the Biblical description has inadequate ideas based on images. Anyone can dream up the image of a building and imagine its construction, but only the architect, with her rational-intuitive mind, truly understands the essence and definition of a building, and when, where, and how to construct it.

## **Construction**

I now proceed to the extrapolative part of the paper, where I consider what we may surmise about a Spinozian view of architectural practice.

The architect has rare cognitive powers. All reasoners have some adequate knowledge, usually as the result of a long process of comparing common properties, deducing what follows from them, and making inferences. The architect is capable of conceiving adequately not only the common properties of the things he experiences, but the essences of certain singular things themselves, intuitively, *a priori* and *sub specie*

*aeternitatis*. Like the mathematician, the architect understands the essences of those things in terms of their geometrical definitions, and understands how to deduce from those definitions the things' essential properties. From his true idea of the eternal essence of a building, it seems the architect can construct it like a geometrical figure.

Yet a building is not only geometrical. Actually constructing that building, as a durationally existing thing in a particular set of material circumstances, draws on a broader range of scientific knowledge. The *durational* idea of the building involves empirical perceptions of land and materials, carefully considered with reference to principles of geometry and physics. The architect therefore relies on imagination as well as reason and intuition. Imaginative architectural thinking, while it is confused, is nevertheless an important aspect of design and construction. Imagination is, after all, not an epistemic failing, but a power to affirm ideas and hold them up for consideration (E IIP49S). Appetites, desires and imagined benefits, when held up in the light of one's rational knowledge of physical properties, can provide the impetus for realizing a building. Whereas conceiving the building *sub specie aeternitatis* is rational-intuitive, we might say that conceiving it *sub specie durationis* is rational-imaginative.<sup>26</sup> The eternal idea of the building is constructed durationally through experience, affects, common notions, and rational inference. Just as the concept of a sphere may be formed by rotating a semi-circle around its centre (TIE 72), the durational idea of the building must be *generated* from a consideration of how geometrical parts can be realized in specific circumstances.<sup>27</sup> Geometrical knowledge is necessary but not sufficient for architectural design. For Spinoza, as for Vitruvius, architecture surely draws on the full range of scientific knowledge.<sup>28</sup>

Furthermore, what the architect builds is not a replication of the eternal idea she intuitively: as we saw earlier, a building is not an instantiation of a Platonic form. The architect must bring the building into existence, meaning that she must transform the eternal idea of

the building into the idea of a durational thing that will take its place in a world of interacting finite modes. Design and construction are not based on the replication or repetition of an idea,<sup>29</sup> but on the transformation of that idea from eternal to durational. This transformation is effected through transitions between the three kinds of architectural thinking: rational-intuitive thinking that grasps essences; rational-imaginative thinking that understands laws of nature, causes and effects, and common properties; and imaginative-affective thinking that is inflected by sense perception, passions and desires. The idea of the building changes according to the laws, images, possibilities, and constraints that each kind of thinking makes possible, and the unforeseeable and unavoidable contingencies the building encounters as it affects and is affected by other existing things. The architect oscillates between adequate understanding of the essence of the building and inadequate understanding of how the building will look, feel, act, change, and relate to its surroundings and users. Design is not a matter of replicating ideas held in the intellect, but of causing an eternal, fixed, clear and distinct idea to change into something durational, affective, uncertain, partial and confused: something that can be brought into existence in a specific time and place, something that is “part of nature” and subject to its vicissitudes. The ability to cause ideas to change in this way is the architect’s “art”. Architecture is not a matter of ascending through the three kinds of knowledge to eternal ideas, nor of perfectly realizing eternal ideas, but of thinking in all three ways and making constant transitions between them.

Architecture is not, of course, an exclusively intellectual process of thinking and transforming ideas. It is simultaneously a physical process of acting and transforming materials. For Spinoza, thinking and acting are “equal”: the mind and body are “one and the same thing, expressed in two ways” (E IIP7S). Those with a strong capacity to understand adequately have “the power of ordering and connecting the affections of the body according to the order of the intellect” (E VP10Dem.). It follows that the architect who conceives the

eternal idea of a building “in orderly fashion” (TIE 69) can physically draw and construct it from its geometrical definition. Again, the design and construction of a building involves much more than this, for architecture is not the mere actualization of an eternal essence. What the architect draws and builds follows partly from his nature alone, and partly from the natures of other things that determine and affect it: building materials, environmental conditions, and the desires, images, and passions of the building’s clients and users. Where the architect’s mind oscillates between adequate understanding of the essence of the building and inadequate understanding of how it will work durationally, his body oscillates between being the building’s adequate and inadequate cause.<sup>30</sup>

The architect’s thinking does not precede and direct the physical construction; the two unfold in parallel. This is the point that Spinoza stresses when he invokes temple-building in the Scholium to *Ethics* IIP2 (“The body cannot determine the mind to thinking, and the mind cannot determine the body to motion, rest, or to anything else”):

[W]hen men say that this or that action of the body arises from the mind, which has dominion over the body, they do not know what they are saying [...]. They will say, of course, that it cannot happen that the causes of buildings, of paintings, and of things of this kind, which are made only by human skill, should be able to be deduced from the laws of Nature alone, insofar as it is considered to be only corporeal; nor would the human body be able to build a temple, if it were not determined and guided by the mind. But I have already shown that they do not know what the body can do, or what can be deduced from the consideration of its nature alone [...].

This passage is often taken as evidence of a kind of materialism: the view that temples and paintings emerge blindly from material nature without mental intentions.<sup>31</sup> But Spinoza is not denying that mental intentions and conceptual processes are involved in the creation of works

of art and skill. He is arguing that the mental process of conceiving the work of art is parallel (and not prior) to the physical process of constructing it. While we must not lose sight of the body in the process of architectural design and construction, we must equally recognize that this process can be understood and described in mental terms.

If Spinoza is sometimes wrongly characterized as a materialist, he is just as often wrongly regarded as an intellectualist, who valorizes the mysterious third kind of knowledge above the other kinds of thinking. The case of the architect shows that it is not reaching the third kind of knowledge that matters most, but the ability to integrate the three kinds of knowledge to understand how the true ideas of things can be made durational in particular circumstances. Indeed, Spinoza makes clear that a rational-intuitive thinker “may have as many inadequate ideas as” a largely imaginative one; the former has a more powerful mind because adequate ideas constitute the greatest proportion of his mental content (E VP20S).<sup>32</sup> The architect is an exemplary thinker because he can integrate his inadequate ideas with adequate ones, effectively moving between the three kinds of knowledge to transform eternal ideas into ideas that will function well in a particular time and place.

In this sense, the architect resembles the virtuous political leader more closely than he does the artist. Virtue, for Spinoza, is intrinsically linked to adequate knowledge.<sup>33</sup> It is no accident that Solomon is both the temple architect and a leader who “excelled all others in wisdom” (TTP ch. 2; G III/29). Societies, like buildings, must be designed, and the idea of community transformed to fit the particular circumstances: there is no blueprint of the best society that can be realized in all places and times. The virtuous political leader develops structures that meet the needs, mitigate the passions, and further the freedom of a specific people. The virtuous architect, similarly, develops structures that are well-adapted to the requirements of their human inhabitants. Spinoza’s philosophy suggests that true understanding will yield results that are good for human flourishing, for as a person’s

knowledge of God is greater, so too is his desire for that which is good for himself and others (E IVP37). Spinoza therefore seems to hold that an architect who thinks with a high degree of adequacy will tend to build structures that support human flourishing.<sup>34</sup> His building will be “good” for its particular circumstances if the architect can integrate his intuitive grasp of God’s ideas with his rational understanding of the laws of nature and his imaginative understanding of how materials look and feel, what people want and how they feel, and how these elements interact.<sup>35</sup> Architecture and building are “religious”, in Spinoza’s special sense of that term:<sup>36</sup> every building that follows from adequate understanding is a temple, motivated by true understanding of God and the desire to promote that understanding in others.

In conclusion, it is clear that for Spinoza, as for so many other philosophers, the architect concretizes a key metaphysical principle: that the human mind can understand God’s eternal ideas of real beings, regardless of their actual existence, and deduce their geometrical properties. But Spinoza believes that architectural thinking is much more than having an intuitive grasp of eternal truths. The architect integrates imaginative, rational, and intuitive modes of thinking to consider how an eternal truth may translate into specific, durational circumstances. This integrative way of thinking constitutes the architect’s virtue: her “power to bring about certain things” from her understanding of God, or nature (E IVD8, IVP28). This power does not consist in the godlike ability to make eternal ideas actual, but in the human *artistic* capacity to interpret those ideas in the light of sensory, affective, and relational factors. Thus, while Spinoza does not advance a distinctive theory of architecture, his use of architectural examples reveals a notion of architectural thinking that moves decisively beyond the Platonic, Renaissance, and Cartesian models. For Spinoza, the architect is no longer a divine mathematician or rational builder, but is on her way to being an artist.<sup>37</sup>

## Bibliography

- Curley, Edwin. 'Spinoza on Truth'. *Australasian Journal of Philosophy* 72, no. 1 (1994): 1–16.
- Deleuze, Gilles. *Difference and Repetition*. Translated by Paul Patton. New York: Columbia University Press, 1994.
- Deleuze, Gilles. *Spinoza, Practical Philosophy*. Translated by Hurley Robert. San Francisco: City Lights Books, 1988.
- Descartes, René. *Meditations on First Philosophy: With Selections from the Objections and Replies*. Edited and translated by John Cottingham. Cambridge: Cambridge University Press, 2013.
- Gatens, Moira. 'Spinoza on Goodness and Beauty and the Prophet and the Artist'. *European Journal of Philosophy* 23, no. 1 (2015): 1–16.
- Heyman, Jacques. 'Geometry, Mechanics, and Analysis in Architecture'. In *Geometrical Objects: Architecture and the Mathematical Sciences 1400-1800*, edited by Anthony Gerbino, 193–201. Springer International Publishing, 2014.
- James, Susan. *Spinoza on Philosophy, Religion, and Politics the Theologico-Political Treatise*. Oxford: Oxford University Press, 2012.
- Kodalak, Gokhan. 'Spinoza, Heterarchical Ontology, and Affective Architecture'. In *Spinoza's Philosophy of Ratio*, edited by Beth Lord, 89–107. Edinburgh: Edinburgh University Press, 2018.
- LeBuffe, Michael. 'Change and the Eternal Part of the Mind in Spinoza'. *Pacific Philosophical Quarterly* 91, no. 3 (2010): 369–84.
- Mitrovic, Branko. *Philosophy for Architects*. New York: Princeton Architectural Press, 2011.
- Morrison, James C. 'Why Spinoza Had No Aesthetics'. *The Journal of Aesthetics and Art Criticism* 47, no. 4 (1989): 359–365.
- Newlands, Samuel. 'Spinoza and the Metaphysics of Perfection'. In *Spinoza's Ethics: A Critical Guide*, edited by Yitzhak Y. Melamed, 266–84. Cambridge: Cambridge University Press, 2017.
- Primus, Kristin. 'Scientia Intuitiva in the Ethics'. In *Spinoza's Ethics: A Critical Guide*, edited by Yitzhak Y. Melamed, 169–86. Cambridge: Cambridge University Press, 2017.
- Rawes, Peg. 'Dissimilarity: Spinoza's Ethical Ratios and Housing Welfare'. In *Spinoza's Philosophy of Ratio*, edited by Beth Lord, 108–24. Edinburgh: Edinburgh University Press, 2018.
- Rawes, Peg. 'Spinoza's Architectural Passages and Geometric Compartments'. In *Spinoza Beyond Philosophy*, edited by Beth Lord, 66–86. Edinburgh: Edinburgh University Press, 2012.
- Spinoza, Benedictus de. *The Collected Works of Spinoza*. 2 vols. Edited and translated by E. M. Curley. Princeton, N.J: Princeton University Press, 1985 and 2016.
- Steinberg, Diane. 'Knowledge in Spinoza's Ethics'. In *The Cambridge Companion to Spinoza's Ethics*, edited by Olli Koistinen, 140–66. Cambridge: Cambridge University Press, 2009.
- Thomas, Christopher. 'From Complex Bodies to a Theory of Art: Melancholy, Bodies, and Art in the Philosophy of Spinoza'. *Epoché: A Journal for the History of Philosophy* 22, no. 2 (2018): 367–87.
- Touber, Jetze. 'Applying the Right Measure: Architecture and Philology in Biblical Scholarship in the Dutch Early Enlightenment'. *The Historical Journal* 58, no. 4 (2015): 959–85.

- Viljanen, Valtteri. *Spinoza's Geometry of Power*. New York: Cambridge University Press, 2011.
- Vitruvius Pollio. *Vitruvius, the Ten Books on Architecture*. Translated by Morris Hicky Morgan. Cambridge: Harvard University Press, 1914.
- White, Stefan. 'The Greater Part: How Intuition Forms Better Worlds'. In *Spinoza's Philosophy of Ratio*, edited by Beth Lord, 125–40. Edinburgh: Edinburgh University Press, 2018.
- Wilson, Margaret D. 'Spinoza's Theory of Knowledge'. In *The Cambridge Companion to Spinoza*, edited by Don Garrett, 89–141. Cambridge: Cambridge University Press, 1996.

---

<sup>1</sup> Spinoza's views on art have been discussed by Morrison, 'Why Spinoza Had No Aesthetics'; Gatens, 'Spinoza on Goodness and Beauty'; and Thomas, 'From Complex Bodies to a Theory of Art'.

<sup>2</sup> Mitrovic, *Philosophy for Architects*, 39–40.

<sup>3</sup> Heyman, 'Geometry, Mechanics, and Analysis in Architecture'.

<sup>4</sup> Descartes, *Meditations on First Philosophy*, first meditation.

<sup>5</sup> Heyman, 'Geometry, Mechanics, and Analysis in Architecture'.

<sup>6</sup> I use Curley's translations throughout, from Spinoza, *Collected Works* (2 vols.). References to the *Ethics* (E) are to part number (roman numerals) and to proposition (P), axiom (A), definition (D), corollary (C), or scholium (S) number, or to a demonstration (Dem.) or preface (Pref.).

<sup>7</sup> A growing scholarly literature explores the relevance of Spinoza's naturalism to architecture. Spinoza allows for a conception of the built environment continuous with the natural environment, leading us to think of buildings as active components of our affective fluctuations, and contributors to, or detractors from, our flourishing and our freedom. See Rawes, 'Spinoza's Architectural Passages'; Rawes, 'Dissimilarity'; Kodalak, 'Spinoza, Heterarchical Ontology, and Affective Architecture'; and White, 'The Greater Part'.

<sup>8</sup> For more detail on Spinoza's theory of knowledge, see Wilson, 'Spinoza's Theory of Knowledge'; and Steinberg, 'Knowledge in Spinoza's *Ethics*'.

<sup>9</sup> "Perfectly adequate" and "imperfectly adequate" are my terms, not Spinoza's. For a longer account of intuitive knowledge, see Primus, '*Scientia Intuitiva* in the *Ethics*'.

<sup>10</sup> On this puzzling point, see LeBuffe, 'Change and the Eternal Part of the Mind in Spinoza'.

<sup>11</sup> References to Spinoza's correspondence (Ep.) are to the letters' standard numbers.

<sup>12</sup> The *Treatise on the Emendation of the Intellect* is abbreviated TIE, with references to paragraph number.

<sup>13</sup> See Newlands, 'Spinoza and the Metaphysics of Perfection'.

<sup>14</sup> The tabernacle in the time of Moses is described at Exodus 25-27, Solomon's temple at I Kings 5-7, and Ezekiel's vision of a future temple at Ezekiel 40-48. For a helpful overview of this topic, see Touber, 'Applying the Right Measure'.

---

<sup>15</sup> This was Jacob Judah Leon's 1642 *Retrato del Templo de Selomoh*; James, *Spinoza on Philosophy, Religion, and Politics*, 58.

<sup>16</sup> References to the *Theological-Political Treatise* (TTP) are to chapter number and page number in the Gebhardt (G) edition.

<sup>17</sup> On the prophetic use of fictions, see Gatens, 'Spinoza on Goodness and Beauty'.

<sup>18</sup> See Touber, 'Applying the Right Measure'.

<sup>19</sup> See Wilson, 'Spinoza's Theory of Knowledge', 107–9.

<sup>20</sup> Spinoza's *Appendix Containing Metaphysical Thoughts* is abbreviated CM, with reference to part and chapter numbers.

<sup>21</sup> The same thought is expressed at E IP8S2. For further discussion, see Viljanen, *Spinoza's Geometry of Power*, who argues that for Spinoza, "the being of essences is the prime layer of reality itself" (11).

<sup>22</sup> To explain the difference between essence and existence, Spinoza offers the example of the craftsman: "go to some sculptor or woodcarver [who] will show [you] how they conceive in a certain order a statue not yet existing, and after having made it, they will present the existing statue" (CM 1.2).

<sup>23</sup> See also E IP24C and IIP45C.

<sup>24</sup> Relatedly, in the *Ethics*, Spinoza refers to "the order of the intellect" (e.g. E VP10).

<sup>25</sup> See Curley, 'Spinoza on Truth'.

<sup>26</sup> Rawes, 'Spinoza's Architectural Passages', 73–74, uses the term "sense-reason" to describe the thinking with which the architect moves from geometry to materiality. She argues that Spinoza's philosophy enables us to understand architecture as the translation of a geometrical process into embodied human relations.

<sup>27</sup> Whereas the eternal idea of the building is defined by its geometrical essence, we might say that the durational idea of the building "gives a genetic definition of itself" (Deleuze, *Spinoza, Practical Philosophy*, 84).

<sup>28</sup> Vitruvius, a key source for early modern architectural thinking, states that the architect requires knowledge of history, astronomy, music, philosophy, medicine, and law, as well as geometry and the practical skills of drawing and building (Vitruvius Pollio, *The Ten Books on Architecture*, Book I, ch. 1).

<sup>29</sup> In this, I draw on Deleuze's critique of the philosophical notion that the actual is a replication of the concept (Deleuze, *Difference and Repetition*). White, 'The Greater Part' discusses how architectural thinking may be non-replicative in this sense.

<sup>30</sup> On the relationship between adequate-inadequate understanding and adequate-inadequate causation, see the definitions and first three propositions of *Ethics* Part III.

<sup>31</sup> Morrison, for example, argues that the artist for Spinoza is "a kind of sleepwalker" (Morrison, 'Why Spinoza Had No Aesthetics', 364 n. 12). See Gatens, 'Spinoza on Goodness and Beauty', 1–3, for criticism of this view.

<sup>32</sup> See LeBuffe, 'Change and the Eternal Part of the Mind in Spinoza'.

<sup>33</sup> The argument for this connection is developed through *Ethics* Part IV. See especially E IVD8, IVP20–28, and VP25.

<sup>34</sup> An architect may, however, be forced by external circumstances or authorities to build structures that detract from the flourishing of others. And of course, architects whose rational thinking and virtue are at a low ebb may design poor quality buildings.

<sup>35</sup> See Kodalak, 'Spinoza, Heterarchical Ontology, and Affective Architecture'.

<sup>36</sup> "Whatever we desire and do of which we are the cause insofar as we have the idea of God, or insofar we know God, I relate to religion" (E IVP37S1).

<sup>37</sup> This paper was first presented to the London Spinoza Circle at Birkbeck College London in 2018. It was subsequently presented at a conference on Spinoza and the arts at Manchester Metropolitan University, and at the Universities of Warwick and Glasgow. I would like to

---

thank the organizers and audiences for comments and questions that helped the paper's development. Special thanks to Peg Rawes, Christopher Thomas, and John Heyderman for discussion of Spinoza and architecture, Gokhan Kodlak for his comments on an earlier draft, and two anonymous referees for their helpful comments. Finally, I would like to thank Moira Gatens and Anthony Uhlmann for their support and invitation to contribute to this volume.