Phenomenologies of the City

Studies in the History and Philosophy of Architecture

Edited by
Henriette Steiner
and
Maximilian Sternberg
Squaring the City: Between Roman and Rabbinic Urban Geometry

Gil P. Klein

One of the famous stories told by Vitruvius describes the Greek philosopher Aristotle, a follower of Socrates, as shipwrecked on the Island of Rhodes with his companions. The survivors' despair is alleviated when Aristotle observes geometrical diagrams drawn on the sand and declares, 'There are good hopes for us, for I see human footsteps!' Soon after this discovery, the philosopher and his companions find the gymnasium in the city of Rhodes, where they are given shelter and are honoured for their philosophical education. For Vitruvius, geometry is, therefore, a marker of a civilized city, and an indication that philosophy dwells therein. In Aristotle's story, as in Plato's Republic, geometry and philosophical dialectics lead us from the darkness of a shadowy existence (here, the bottom of the sea, in the Republic, the cave) to the knowledge of the good city.

A slightly later rabbinic story suggests a parallel movement from sea to city via geometry. The Mishnah (third century CE collection of rabbinic legal traditions) tells of Rabban Gamaliel, who is travelling back from Italy on a ship with other rabbis. The ship makes landfall at the harbour, perhaps in one of the port cities of Roman Palestine, on the eve of the Sabbath. According to the rabbinic laws of Erwin, which I will discuss below, one must not walk beyond a specific distance on the Sabbath, and the rabbis on the ship debate whether they should disembark and risk crossing this permitted distance. Gamaliel determines that they may indeed walk away from the ship on the basis of an observation he had made that the vessel was within the city's Sabbath boundary, that is, within the permitted walking distance, at nightfall. In its commentary on the Mishnah, the Palestinian Talmud (redacted in the fifth century CE) later explains Gamaliel's geometrical ability to calculate the distance by attributing to him the use of a viewing tube, which was an instrument of land measurement.

Hence, similarly to Aristotle's story, geometry and a dialectical discussion (albeit of Torah and not philosophy) lead the seafarers from darkness into the safety of the city. The port city and the proper observance of rabbinic law that its Sabbath boundary facilitates, is anticipated through geometry, which thus ensures access to civilization and, ultimately, to truth. It may be said, therefore, that in Vitruvius...
and the rabbis' works (both of which are products of the Roman world), geometry functions as an orienting element towards the universal, which it mediates through cultural institutions such as the gymnasium or the rabbinc association, in constant negotiations with the changing conditions of nature and culture.

In Platonism, geometry's structuring power of analogy and proportion was seen as crucial in the preparation of the soul for the philosophical dialectic that would lead it to the knowledge of the good. What makes geometry suitable for this task of preparation and mediation, according to Plato, is its capacity to produce internal images that are closer to the sphere of ideas than the mere representations of things we see in the world around us. Thus, in Platonist thought, geometry is central to the problem of the relationship between universal truth, the physical world, and the human soul. It is important to note in this regard that geometry's utilization is aimed at the sphere of ideas and not at the shaping of the physical world: in his elaboration of the ideal polis in the Republic, for instance, Plato never suggests what form this city should take. By stating that the ideal polis can be found nowhere on earth and that perhaps there is a pattern of it laid up in heaven for him who wishes to contemplate it and so behold it constructively himself, Plato stresses its status as a remote possibility, which is fully accessible only internally.

The rabbis, whom the late antique heirs of Platonic philosophy would have probably considered sophists rather than philosophers, but who may nevertheless have known Plato's work indirectly, made a few references to a heavenly city. One such reference describes Jerusalem above, into which God returns. If Plato, the ideal polis may be attained and inhabited only through contemplation, for the rabbis. Entering heavenly cities, temples or gardens is only possible in the afterlife, or in an eschatological future, as well as through spiritual procedures and study. Although, for the rabbis, geometry did not have the same educational and philosophical significance as for Plato, as evident in Gamaliel's story above, it was, nevertheless, an important religious framework. In its expression as a set of Biblical urban measurements and proportions, geometry was used by the rabbis explicitly, and in close correspondence with the Greco-Roman culture, as a vehicle for the mediation between God, the world, and humans.

By focusing on this mechanism in what follows, I explore rabbinic urban geometry and its Greco-Roman background as an instance of mediation between universal truth and the civic and religious order of a lived city. As shall be demonstrated, although the rabbis were deeply interested in urban shapes, like Plato, they never used geometry to prescribe how to build a city. Before analyzing the particular rabbinic practices, I would like, first, to situate the question of mediation and geometry within the philosophical tradition of phenomenology.

CITIES BETWEEN EARTH, WORLD AND THE DIVINE

In 'The Origin of Geometry,' Edmund Husserl explores the central questions pertaining to the knowledge of geometry as a universal truth that is shared by all humans. How is it possible, Husserl asks, that geometrical shapes that emerged in the mind of their hypothetical first inventor, exist in the same way for everyone anywhere, and in all times? His answer is that humans are bound to the world and to other humans through their primary mode of action in and communication with their surroundings: that is, through language. Hence, we are able to share in the geometrical forms in the minds of others, first, because we are able to represent such forms linguistically and graphically to one another, but also because our existence in the world is always already relational and communicable. Husserl famously speaks of the world as the horizon of 'human life,' as a horizon of 'things' (real objects), of our actual and possible interests and activities. Another defining element that is shared by all humans in Husserl's philosophy, which brings us closer to this chapter's concern with land, city, and geometry, is the earth. The fact that we are earthbound and move horizontally as bodies on its surface defines our existence: the earth determines the possibilities of our actions, establishing our relations with other bodies, with other humans. For Husserl, the earth is therefore the 'ark of the world,' the ground of the human horizon. In this sense, the earth is not an object—it is, even when we see it as far as a planet, our inherent experience of it is as the ground of our existence, and not as a body alongside ours.

This notion became particularly important for Martin Heidegger. Husserl's student and colleague (who later turned his back on him with the rise of National Socialism in Germany), in Heidegger's later work, Earth is understood through the Greek term physis (best rendered as 'nature'), which, as in Husserl's understanding, is a universal dimension and the ground of human existence. For Heidegger, Earth is the 'grounding agent,' which provides the conditions of being, the ground that allows a World to emerge. 'World' in Heidegger's philosophy, similarly to Husserl's horizon, is equivalent to culture; it pertains to a structure of significant relationships between humans and things, as well as between humans themselves. It is within and through the World that the universal, or, in Heideggerian terms, Being, is disclosed to humans in their particular and finite existence.

For both Husserl and Heidegger, language is a central factor in this process of disclosure (although the latter sees language as equally capable of concealing). Language, and its capacity to represent and make present the universal in the human sphere is, related to what Heidegger calls 'Work': Work, exemplified in Heidegger's 'The Origin of the Work of Art,' an essay by the figure of a temple, mediates the distance between World (culture) and the two universal dimensions of Earth (nature) at one end and the divine, or the 'highest good,' at the other. A temple, understood here as Work, sets up a World because it allows humans to represent the universal within conditions of finitude and mortality, within history. Elsewhere in his writings, Heidegger refers to this relationship between Earth, World, humans, and gods as a 'fourfold.'

As part of my discussion of urban geometry in this chapter, I would like to turn to the moment in which representation goes away, and to Heidegger's critique of this moment. According to Heidegger, the modern period and the project of humanism brought about a forgetfulness of Being; it is a forgetfulness of the universal dimension, which can be manifested in the world of humans only through representation, and always partially. In modernity, humans are both the subjects
and the objects of representation, their world—culture—becomes a picture (in the sense of a manufactured image), and the earth is no longer the ground, but rather an abstract set of coordinates: space. What Heidegger calls 'world picture' is expressed, for example, in projects in which human history, art or cities, are understood as the ultimate representations of the universe as a whole.\footnote{In his article 'City Image versus Topography of Praxis,' Peter Carl analyzes the city in view of this problem. Carl links Heidegger's 'world picture' to the notion of 'city-image'—a representation of culture and the cosmos as a whole through the geometrical structure of a city. As he notes, what started in the Renaissance with the notion of the ideal city, which was mostly apparent in the pictorial representations or distinct urban buildings, became, in the eighteenth and nineteenth centuries, fully fledged architectural projects in the work of such figures as Nicolas Lebrun. In these kinds of projects, the city was made to embody an ideal social and cultural order, and the geometrical forms imposed on it became the central means through which to achieve such conceptual coherence.}

In contrast, the topography of praxis pertains to the spatial and symbolic relationships between different urban activities and cultural representations. In the topography of praxis, the cosmic and cultural order in its entirety exists only as a remote potentiality that could never be fully manifested in the reality of the city. To go back to The Age of the World Picture, according to Heidegger, ancient Greece exemplifies this kind of idea; in the age of the Greeks, the world will never become a picture.\footnote{As we saw in Plato, the implementation of geometry as part of the task of building was certainly not the means through which to achieve an ideal polis. It is, therefore, not a coincidence as Carl notes, that a perfectly circular city, for instance, was rarely ever built in the ancient world; it existed in textual speculations, but hardly ever in reality.}

One of Carl's main concerns is our architectural understanding today, and the danger that the notion of the 'city-image' holds. For Carl, the danger of city-image (and the related term 'built form' or 'material culture') has to do with the implied idea in that material, or form, can capture the entirety of a lived world by means of a particular method, theory, or style. As he notes, 'city as image' should be translated 'city as concept'; this term 'would seem, intrinsically useless for analysis of all but post-Enlightenment cities and, correspondingly, may bear on our current persistent inability to make decent cities.\footnote{A prominent example of a contemporary city as concept in the context of geometry is architectural parametricism, a computerized design system, which produces entire urban plans on the basis of mathematical values. The parameters of such plans are the abstract forms and measurements programmed into the system, which can expand, contract, or multiply urban elements on the basis of geometrical manipulation. Such a system replaces, therefore, the lived conditions of a city with precise formulas; geometry with its scales and dimensions, which was understood in the ancient and medieval worlds as mediating between the universal and the particular, becomes here a mere formal and visual mechanism in the hand of man. In this regard, the fascination of modern and contemporary formalism with proportion would not have been possible without the pre-modern traditions, from which it, nevertheless, radically broke away.}

In his critique of contemporary architecture and its discourse, Carl turns first to ancient and medieval urban thought, in which an ideal geometrical structure was imagined in speculation, but never fully realized on the ground. Guiding my discussion of rabbinic urban geometry here therefore, is the mediated distance explored by Carl between the universality of earth, or the divine, and the particularity of human life in the context of pre-modern cities. For urban architecture today, such a historical analysis is significant because it reveals an alternative mode of thinking about cities, but also because it illuminates a potent, if latent, dimension of western tradition, one that is in the background of contemporary culture.

For the purpose of this analysis, I will start with the uniquely Roman engagement with cities as part of the endeavor to represent the empire through architecture. The discourse of power, evident in the regulation and representation of cities as images or objects served, and still serves, in their colonization and conversion. Jerusalem, for example, is one such instance of a city whose architectural and visual representation has been used by several imperial powers throughout history in an attempt to claim religious and political authority. In the following discussion, I will turn to the textual and archaeological evidence, which provides the basis for comparison between Roman and rabbinic practices. The subsequent examination of the Sabbath place and Roman land survey will focus on the two main elements of this rabbinic practice—the body and the city with its urban outskirts—as well as on the different modes of geometrical representation they reveal. In my conclusion, I will also consider the political dimension of representation through architecture, exploring the possible implications of a discourse of empire for rabbinic self-understanding, and for our thinking about architecture today.

When discussing pre-modern cities, Carl considers the case of Vitruvius' circular city described in his Ten Books on Architecture. He notes that Vitruvus would like to see the cosmic meaning in the architecture, displacing the content of the mediating order from the praksis of the polis to the visual domain of its architecture.\footnote{Vitruvus' circular city was, in fact, a wind-rose diagram common in the Greco-Roman world, which he transformed into an actual urban plan. Such a cosmic diagram, Carl argues, marks a conceptual urban perception, which would naturally promote the synthetic thinking necessary for a 'figured city.' In rabbinic literature, we see such an understanding of a 'figured city' in the formal imagination of the future Jerusalem or the temple precinct; for example, the geometry and configuration of the walls that encapsulate the national and religious orders. This way of thinking about Jerusalem seems to emerge from biblical texts such as that of Ezekiel, and brings to mind the articulations in the Dead Sea Scroll of the New Jerusalem or those in the Book of Revelation. It is important to note, however, that Vitruvus' wind-rose city remained, after all, a textual construct that was never built into what Carl calls city-image. For various reasons, the rabbis, for their part, did not promote the building of a New Jerusalem and a third temple.}

In the ancient and late antique worlds, there was always a temptation to geometrically shape real cities on the basis of cosmic models and cultural
paradigms, especially in the context of imperial powers such as Rome, which used architecture to represent and promote themselves. However, urban geometry remained, in almost all cases, deeply rooted in the praxis of land distribution, political negotiation, and religious ritual. As I would like to show in this chapter, the application of urban geometry in both rabbinic and Roman imperial practices served precisely to mediate between the universal dimension of the cosmos, or the divine, and the particularities of a lived city.

On the basis of recent work, we already think of the rabbinic as engaged members of the broader Roman world, and it would not be surprising therefore to discover striking parallels between rabbinic and Roman materials on urban geometry. Nevertheless, the parallels I wish to illuminate here between rabbinic texts (and specifically Palestinian ones) and Roman works such as Vitruvius's *De Architectura* or the land survey collection known as the Corpus Agrimensorum Romanorum is a collection of several first to fifth centuries CE works on Roman land survey in Latin, recorded in illuminated manuscripts whose earliest version dates to the sixth century CE, merit particular attention. Apart from the fact that these parallel have not been identified before, and that they suggest rabbinic familiarity with official Roman land survey practices, reviewing these two sets of materials expands our understanding of urban perception in late antiquity. The apparent rabbinic correspondence and appropriation of Roman geometrical urban practices reveals a unique instance of cultural translation in matters concerning cosmic orientation, religious foundation, and the dynamics of imperial authority. In this regard, the rabbinic geometry of the Sabbath boundary may be seen as one of the shapes that Roman engagement with the urban landscape takes, providing a distinctive solution to the problem of representing the universal in the particular.

One of the central laws pertaining to the Sabbath comes from Exodus 20:8, which states: *Let everyone remain where he is; let no one leave his place on the Seventh Day.* By prescribing certain ritual acts and religious rules, which employ techniques such as measuring, calculating, and marking boundaries, the rabbis established and defined the place of the Sabbath through the procedures of geometry. This geographically established place was fundamentally urban, and the majority of the texts dedicated to the prohibition from Exodus revolve around cities or settlements. In these texts the rabbis used the biblical repository of urban dimensions associated with the Levitical commandments and the Temple precinct as geometrical building blocks for their Sabbath place. Geometry, in this regard, served as a mediating element between the divinely sanctioned order of sacred enclosures/holy days and the daily life of an ordinary town.

Before turning to the mechanisms of the Sabbath place, I would like to briefly review the Roman practices of land survey as described in the *Corpus Agrimensorum Romanorum* (henceforth CAR), and their explicit and implicit acknowledgement in rabbinic literature. Two examples of Roman application of land survey in Palestine include the urban layout of Tiberias and Sheiphos, which figure in the literature as major rabbinic centres. These two cities boast a well-ordered rectangular plan, with main axial streets and a recognizable urban core (Figure 2.1). Rabbinic literature also mentions sages using Greek-Roman land survey devices such as the *doctro* we read about in Gamaliel's story, and...
The full extent of his height and the span between his stretched arms is, in an area of four cubits.\textsuperscript{9} This statement describes the human body in geometrical terms: the hands reach the body's vertical and horizontal dimensions as forming a square, the two axes of which are equal in length.\textsuperscript{3} This formulation bears striking resemblance to the Vitruvian rendering of the body's proportions, which was made famous in the Renaissance by Leonardo da Vinci's drawing.\textsuperscript{11} For Vitruvius, the human body may, likewise, be enclosed within a square.

Per if we measure the distance from the soles of the feet to the top of the head, and then apply that measure to the outstretched arm, the head would be found to be the same as the height of a square whose side is perfectly equal in length.

Nevertheless, in spite of these parallels, the understanding of the body in Vitruvius is significantly different from that of rabbinic literature. Unlike the rabbinic members, the members of a Jewish provincial sub-elite whose concern is fundamentally religious - Vitruvius also has a professional interest in architecture, and is specifically concerned with the Roman culture and its representation. For the rabbinics, the geometry of the 2,000 cubic boundary, which one may traverse on the Sabbath, is purely speculative. The square boundary of an individual in the field has no physical manifestation; no boundary markers or even measuring procedures are prescribed. In fact, the Tosafist's language suggests that the square boundary exists solely in one's mind, and that this geometrical image is supposed to guide the individual in the field when, perhaps, he or she counts the steps towards the edge of the permissible area. Conversely, for Vitruvius, the proportionate set of bodily measurements is a template for actual acts of building. When discussing the correct way of building a temple, for instance, Vitruvius says:

For without symmetry and proportion no temple can have a regular plan; that is, it must have an exact proportion worked out after the fashion of a finely-shaped human body.\textsuperscript{12}

Here, geometry, as it is reflected in the body, is a modus operandi for architecture, dictating the design and shape of buildings.

From the human body and its extended boundary, we move to the next unit of place in the sequence of scale, the city. For the rabbis, the individual's corporeal place of the Sabbath fuses with the architectural body of an enclosure, a building, or a settlement. Once one is within a structure or a city, they become one's place for the duration of the Sabbath.\textsuperscript{13} Beyond such a place, one is once more, only allowed to traverse an area of 2,000 cubits. The problem arises for the rabbis at the irregular margins of town where a clear urban limit now becomes necessary. Without such a limit, it would be impossible to determine where the city ends and where the 2,000 cubits of the extended permissible walking area of the Sabbath begins. The rabbinic solution is, first, to extend the city's limit in order to include in it various structures on the margins. This practice is called in rabbinic literature \textit{but ha-r} - the augmentation of the urban settlement.\textsuperscript{14} Most significantly, \textit{but ha-r} does not entail a random extension of the city's limit in whatever direction this city may be sprawling. For the rabbis, such augmentation involves a component of geometrical regulation. When describing the procedure of the city's augmentation, the Mishnah, for example, states:

And we make it the city with its augmented limit as a square table, so that the residents may gain the additional area of the corners.\textsuperscript{15}

In prescribing the urban limit as a square, the Mishnah turns the irregular outline of the city, with its dispersed architectural elements, into a basic shape. When examined in the context of Roman land measurement practices, this squaring of the city (\textit{ruba ha-r}) suggests a correspondence with Roman practices of urban foundation. The central preoccupation of land survey texts such as the CAR is centuratio or \textit{imbaratio} - the institution of an orthogonal matrix of boundaries, which divides the territory of the newly founded settlement into square or rectangular plots. The procedure of centuratio began with the eugenic interpretation of omens at the site of a new settlement, which established its sacred enclosure - the templum. The templum was seen as a reflection of the celestial sphere with its four quarters and was likewise divided into east-west and north-south axes.\textsuperscript{16} Starting with this cross, which eventually became the intersection of the main urban streets - the \textit{kardo maximus} and \textit{decumanus maximus} - land surveyors set a grid of parallel lines by stretching ropes at right angles so as to form squares of a specific dimension. These squares would be subdivided down to the size of a single plot and would be allotted to a settler and his household for dwelling and cultivation by imperial decree (Figure 2.2). The fact that this allotment was understood as sanctioned by the god of boundaries - \textit{Terminus} - indicates that centuratio was not only a fundamental civic and economic enterprise, but also a religiously meaningful act.\textsuperscript{17}

It is important to note that, both the rabbis and the Roman land surveyors were far from constructing a 'figured city.' While the rectangular geometry of Roman centuratio had an impact on the city's architectural features and became somewhat of a marker of Roman towns, it functioned as a text background and not as a visually coherent and all encompassing representation. Its main concern was to lay the basis for a spatially clear division of plots, which would ensure a political consensus, manageable passageways, and legally binding units of land ownership.\textsuperscript{18} Furthermore, as evident in the extensive discussion of the topographical and architectural conditions of the urban sites in the CAR, centuratio was determined by the irregularity of mountains, rivers, forests, and randomly situated buildings.

![Illustration of a square plan of a Roman city](https://example.com/roman_city_plan.png)
at least as much as it was determined by the geometrical regularity of the grid. Thus, the primary domain of centuriation was that of praxis, its geometry, though cosmically oriented, was hidden from sight, visible in its entirety only to the trained eye of the surveyor, who could decipher the marks on boundary stones and on the copper rolls kept in the city's records. Likewise, in the case of the rabbinic square city limit of the Sabbath, geometry was not only manifested in an intangible outline circumscribing the city once a week, but it was also deeply embedded in the changing architectural reality of the urban setting. It was not in any way understood as an urban form that should shape the architectural reality of the city.

Another significant parallel between Roman land survey and the rabbinic Sabbath Boundary has to do with cities whose squaring presents a greater geometrical challenge. The Tosefta states:

If the city is shaped like a bowl, or, like the Greek letter gamma, we regard it as if it was even.16

The problem facing the Tosbefta in this ruling has to do with the difficulty of squaring cities that are spread out linearly, enclosing an area, which is empty of buildings. The first example is that of a city whose structures are arranged along a curved line (like a bowl); the second example is of a city whose structures are arranged in two narrow perpendicular strips (like a gamma). The rabbinic solution for these two cities is to enclose them in a full shape - a semicircle for the former, a square for the latter.

Interestingly, one of the works in the Corpus Agimenseon Romanorum, the Casser Liturrarum II, bears great resemblance to the rabbinic formulation from the Tosefta. This work, which seems to have been a mnemonic device for land surveyors, describes the outline of settlements by equating them with the forms of Greek letters, and is accompanied by illustrations (Figure 2.3). The settlement that has the form of the letter gamma is comprised of two perpendicular linear elements that stand next to a spring and a river. The letter sigma, marked in the works illustration as a lunato sign (ς), represents a bow-like settlement whose empty region faces a similar river. Following this comparable intersection of letters and settlements in the Casser Liturrarum II and the Tosefta, it may be said that although the rabbinic sometimes use the term 'gamma' to mean 'right angle', and although their reference to a city shaped like a bowl does not actually mention the letter sigma, the fact that they specifically articulate urban landscapes in this manner is more than a coincidence (Figures 2.4 and 2.5).

This iconographical formulation of cities in both the Roman and the rabbinic texts marks, therefore, a more conceptual level of urban representation. Nevertheless, in spite of such a use of language and geometry, both texts fall short of transforming cities into 'city-images', as they do not seek to represent the culture as a whole in the realm of architecture through linguistic signs.

This is not to say that the geometry of the rabbis' square limit or of Roman centuriation was devoid of cosmic meanings. An additional resemblance between the rabbinic construction and Roman centuriation has to do with the explicit procedure of orientating the urban limit of the Sabbath. The Tosbefta, for example, states that the city's augmented limit, which is made as a tablet, should be a 'universal square' - ribe alom (literally: 'a world square') - a square whose four sides are aligned with the four cardinal directions4 (Figure 2.6). This orientation supposedly comes from the cosmic alignment of the Levitical cities, as described in Numbers 35:3-5. The instructions on how to determine the cardinal directions in the Tosbefta are given through a quote from Rabbi Yose, who applies astronomical calculations of the course of the sun in the sky and the line it makes during the summer and winter solstices, as well as during the vernal and autumnal equinoxes. Similarly, when speaking about the orientation of the axes of the kord and decumanus as part of centuriation, Julius Frontinus and Hyginus, for example, whose works are...
included in the CAR, discuss comparable techniques of following the sun's movement in the sky during the same days of the year (Figure 2.7). 14

Hence, for both the rabbis and the Roman land surveyors, urban geometry makes the universal conditions present in the reality of the city through astronomy. Nevertheless, neither of them is interested in transforming the city into a cosmic diagram, and the world as a whole is represented in the landscape only tacitly. In the case of the rabbis, the cosmic geometry of the Sabbath square limit leaves no traces in the architecture; in the case of Roman centurialization, such traces remain in the distant background, and the grid is only indirectly experienced in daily life.

The last stage of the Sabbath Boundary, which extends the city's limit 2,000 cubits further onto the urban outskirts, is equally elaborate, and its discussion would require more space than is available for this essay. It is important to note, however, that this strip of land surrounding the city, whose dimensions appear to be taken from the biblical measurement of pastureland assigned to the Levitical cities, uses among other geometrical calculations, the Pythagorean theorem (Figure 2.8). As in the case of the Sabbath Boundary's mechanics we have seen, clear parallels are evident in the work of the Roman surveyors. In the work of Marcus Junius Nipsus, for example, we find the application of the Pythagorean theorem in centurialization, which is explicitly described there as 'squaring the land.' 15 In addition, the extended Sabbath Boundary resembles the pomerium — a vacant sacred strip of land with apotropaic powers and political significance, which surrounded Rome and other Roman cities and was marked with boundary stones. If a recently discovered stone from the Galilee, which is inscribed with the Hebrew word 'shabbat,' indeed dates to late antiquity, as one scholar has suggested, it implies that, in spite of its ephemeral nature, this boundary also had a physical manifestation, using the Roman method of boundary marking 16 (see Figure 2.9). Finally, the establishment of the pomerium through ritual ploughing of a furrow around the city evokes rich religious symbolism of fertilization, echoed perhaps in the rabbinic notion of 'tor ho'-tor — the impregnation of the city — and reasserts the mythical establishment of Rome by its founder Romulus. Hence, through the sacred area they secure around urban settlements, both the Roman and rabbinic boundaries mediate the mythical past and its urban paradigms present in the life of late antique cities. They did this, however, in the symbolic language of geometry, without turning the cities themselves into the monuments of their respective social and religious orders.

THE POLITICAL SIGNIFICANCE OF THE SABBATH BOUNDARY: FINAL THOUGHTS

By way of conclusion, I would like to turn to the political question of rabbinic activity under Roman rule, and to point to another significant aspect of the similarities between the Roman and rabbinic urban practices. If, as I have suggested, the rabbis indeed appropriated the techniques and practices of Roman land survey in the institution of a Sabbath place, this appropriation would also reflect on the question of rabbinic authority and self-understanding. Measuring, dividing, and allocating land was a strictly imperial prerogative; the Roman Empire's territories were hers to bestow, and the establishment of new cities was often a way to reward veterans and officials for their services, as well as to ensure their support. In using land survey for their religious project, the rabbis may have instituted, therefore, a form of political sovereignty through religious ruling. 17 This rabbinic appropriation of land survey techniques may thus be seen as a way of assuming the procedures of Roman occupation in order to make a Jewish place. Being confined to the sphere of ritual and speculative geometry, this place had the advantage of establishing a symbolic Jewish community in Roman Palestine without building settlements or erecting walls.

NOTES

1 Vitruvius, De Arch., VI. Preface, 1.
2 Mishnah (hereinafter m), Eruv 4:2.
4 Palestinian Talmud [Jerushalmi] (hereinafter p), Eruv 4:2, 21d.
5 See Plato's divided line, the core of which is discussed in the Republic 5094–511e. On the line itself as an act of measuring see Statius, 284c. And see Peter, Cali, City-Image versus Topography of Praxis. In Cambridge Archaeological Journal, 10(2), (2000), p. 329.
6 Plato, Republic, 596a-6b

7 Babylionic Talmud (hereafter b) Tm 5a. This passage interprets Psalms 122:3: "Jerusalem built up, a city knit together!"


9 Husserl, p. 98.

10 Husserl, p. 97.

11 Husserl, p. 130.


16 Carl, p. 328.


18 Carl, p. 328.

19 Carl, p. 329.

20 Yeravius, De Arch, I,5,13. For Aristotle's understanding of the wind-house see Meteorology, 365a27-365a4, and see the diagram in Oswald A.W. Dilke, Greek and Roman Maps (Baltimore, MD: Johns Hopkins University Press, 1968), p. 28.

21 Carl, p. 330.


25 NIPS translation.

Medieval Moderns? Cistercians and the City

Maximilian Sternberg

From its inception as a distinct historical epoch in modern historiography, the Middle Ages has served as a counter-point to the present. Enlightenment rationalism condemned the medieval epoch as one of oppressive barbarism, while the Romantic tradition represented the medieval as belonging to a long-lost age of spiritual transcendence. The Inheritance of the Middle Ages has thus remained a deeply ambivalent cultural paradigm, both attracting and repelling successive modern onlookers. Some of the most vivid symbols of this persistent historical 'other' belong to the domain of urban architecture. Two leading architectural motifs define the spectrum of such modern visions of medieval urban order: on one side stands the soaring Gothic cathedral, on the other the walled city, enclosing a dense maze of gabled houses grouped around a central marketplace. Modern architects have consciously evoked both the cathedral and the market town as points of reference in their conceptions of the contemporary city, and different artistic strands of the nineteenth century, notably the Arts and Crafts movement, had already sublimated Gothic architecture and the 'primitive' creativity of the medieval craftsman. In effect, the Modern Movement, despite its radical claims, never truly emancipated itself from the images of either medieval or classical culture, categories that remain rooted in the architectural imagination, whatever the particular attitude adopted toward them.

As Bryant argues in Chapter 11 of this volume, the early Bauhaus masters enduringly translated the Gothic cathedral into the promise of abstracted crystalline structures, as a 'pledge of order', in Gadenne's phrase. Later, Aldo Rossi was to evoke images such as that of medieval Lucca or Padua as paradigms of the typological cultural layering of the city. Few responses are as telling of the modern architectural reception of medieval urbanism as that of Le Corbusier. He abhorred the medieval city, and his appropiation of the Gothic cathedral wavered ambiguously between admiration and rejection. Yet his true interest was located in another medieval inheritance, one that effectively lies between cathedral and city, namely the monastery. This fascination was first provoked, according to his own accounts, by his encounter with the Carthusian abbey of Ema in Florence during...