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The Town and the Templum, in the Discussions by Nissen, Nietzsche, Valeton, Catalano and many others

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Abstract: According to Heinrich Nissen, in his Das Templum, 1869, the Roman town is a templum, an inaugurated space with its main axis, the decumanus, oriented towards the sunrise. The day on which the decumanus' direction was established, according to Nissen, was also the Dies Natalis of the town, and was associated with a festival in the Roman calendar. Nissen seems to have been the first to associate decumanus, sunrise, and festivals of the Roman calendar together. Nissen's Das Templum was used by Friedrich Nietzsche for his Der Gottesdienst der Griechen, which contains the lectures on the Greek cult that Nietzsche held between 1875 and 1878. Nietzsche endorsed Nissen's thesis regarding the decumanus. A totally different position is that of Isaac Valeton who, in his De Templis Romani (1983), shows that the town is not a templum and therefore does not require its decumanus ritually oriented to the sunrise. Valeton demonstrated that, according to Roman laws, the ground of the town is profane, and used by common people, subjected to the rule of the magistrate, not of àugurs. So Valeton criticizes Nissen's theory. We will also see in detail the discussion by Pierangelo Catalano, 1978, regarding the spatial aspects of the Roman juridical-religious system. In Catalano we find reiterated that the town is not a templum. Other scholar studies will be mentioned such as, for example, those by F. Castagnoli and J. Le Gall, which say the same. Regarding the centuriation, i.e. the subdivision of agricultural land, Castagnoli, Catalano and Le Gall stress that it is not a templum. Several scholars have therefore stressed that the town is not a templum, and the same for centuriation; this fact needs to be reiterated because archaeoastronomical approaches exist claiming to infer conclusions about the Roman world without considering Valeton, Catalano, Castagnoli, Le Gall and others' opinions about the templa.

Keywords: Surveying, Roman Surveying, Roman Religion, Centuriation

Introduction

In his Das Templum, 1869, Heinrich Nissen proposed the Roman city as a templum, an inaugurated space with its main axis, the decumanus, oriented towards the sunrise. According to Nissen, the day on which the decumans' direction had been established was also the Dies Natalis of the town, associated with a festival in the Roman calendar. Nissen's Das Templum was used by Friedrich Nietzsche for his Der Gottesdienst der Griechen, and for his lectures on Greek worship held between 1875 and 1878. Nietzsche endorsed the Nissen's thesis regarding the decumanus. A totally different position is that by Isaac Valeton who, in his De Templis Romani (1983), does not consider the town a templum and does not mention the town's decumanus as having an astronomical orientation. Valeton demonstrated that the ground of the town was profane and ruled by the Magistrate, not by the Augur. Therefore, Isaac Valeton strongly criticized Nissen's theory. The analysis made by Valeton was mentioned in 1978 and endorsed by Pierangelo Catalano, Professor of Roman Laws and Religion, in his scholarly work regarding the spatial aspects of the Roman legal-religious system. In Catalano we find reiterated that the town is not a templum. Therefore, there is no reason to ritually orient the decumanus astronomically, or, as proposed by Nissen, towards the sunrise. To complete the literature regarding the templum, other studies will be mentioned such as those by F. Castagnoli, J. Le Gall, and others, which say the same: the town is not a templum. Moreover, Castagnoli, Le Gall and Catalano, regarding the centuriations, say that these subdivisions of agricultural land were not templa.

It is evident that Nissen's Das Templum has been criticized in the past with well-founded criticisms. It was criticized even in the reviews that have been published as soon as the Nissen's book started its circulation. However, the main and most detailed criticism comes from Isaac Valeton. Archaeoastronomy, which seems to have as its main aim that of finding possible alignments with sun, moon and stars, almost ignored the works of Nissen, Nietzsche and Valeton. So, in 2007, an article by Giulio Magli (who does not mention Nissen, Nietzsche, Valeton) proposed the decumanus oriented towards the sunrise on the day of a Roman festival celebration. This article by Magli led to a revival of archaeoastronomical hypotheses in the Roman world. The fact that the town is not a templum concerns Roman Laws and Religion, and thus it is also affecting any related archaeoastronomical guess. It is necessary to stress that, since the Roman town is not a templum, it does not require any ritual astronomical orientation.

In 2012, I undertook archaeoastronomical studies of the Roman towns (in particular Augusta Taurinorum, today's Turin), precisely following what was said by Magli. Magli proposed that a solar orientation ritual

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had been used for the foundation of the urban area of Roman colonies, that is, that the Roman colony had been founded according to an Etruscan ritual, with its main street, the decumanus, aligned towards the sunrise. Magli, considering a limited number of Roman-founded towns in Italy, and neglecting the role of the natural horizon, noted some non-random alignments. From the analysis of the little data collected, Magli suggested that the direction of the decumanus corresponded to the sunrise azimuth on a day of a festival in the Roman calendar.

Further studies about the orientation of the decumani allowed me, in 2019, to consider the writings of the German scholar Heinrich Nissen. In his Das Templum of 1869, Nissen considered the inaugurated place called "templum", a special place where the Roman àugurs asked for Iuppiter's approval. Nissen then moves on to discuss temples, military camps, and towns, with an analysis of the literature of Roman land surveyors. It is in Heinrich Nissen's book that we find the town imagined as a templum, with the decumanus oriented towards the sunrise on the day of its foundation. For Nissen, this day is the town's Dies Natalis (birthday), a day which is associated with a festival. Therefore, the German historian Heinrich Nissen was the first to have associated decumanus, sunrise and festivals of the Roman calendar. No antecedents of this theory can be found in the available literature (to the best of my knowledge). An obvious problem exists: which day, in the long legal and religious sequence that characterized the process of founding a colony, was the day that the colonists celebrated as Dies Natalis? The following discussion will also clarify this point.

Roman Surveying

Briefly. The Roman land surveyors (gromatici) were responsible for dividing the land into regular, square or rectangular, lots. The lots were defined by means of a grid obtained with equally spaced parallel and perpendicular lines. The main grid lines were the Decumanus and the Cardo. This process of survey and land parcellation was the so-called "centuriation" or "limitation". For the town of the colonies, they used the same approach. Thus, the urban center of the colony was based on a regular chessboard of blocks, separated by streets which today are defined, in the same manner, as decumani and cardini.

Among the Latin authors who dealt with and wrote about land surveying (see Libertini, G. 2018, Gromatici Veteres), there are those who have mentioned the fact that the Romans followed a ritual of ancient Etruscan origin, which included a reference to rising and setting of sun and moon, "ab oriente ad occasum, quod eo sol et luna spectaret", as Varro would have said, with an orientation that looked at the apparent motion of the sun (and the moon). If this were orientation, with the equations related to the apparent motion of the sun we could find the two days of the year when the sun rises with the same direction as the decumanus (only one if it is a solstice).

Understanding the day of the town foundation as the one in which the direction of the decumanus was established, aligned with the sunrise, Magli concluded in his 2007 article that this day could have been linked to a Roman festival, such as Palilia for Rome and Terminalia for Bologna. Today, after the analysis of Das Templum, it is very clear to me that Nissen had already proposed an approach with the comparison between the decumanus direction and the sunrise azimuth, attaching to the book numerical tables to facilitate the comparison. The example proposed by Nissen is Brindisi, which has the Dies Natalis coincident with the festival of the Salus at Quirinal. And I am also aware that Nissen's theory has been analyzed and criticized. It has been shown that the town is not a templum. In addition, neither the military camp nor the centuriation are templa. Since they are not templa, they have no reference to astronomical orientations. Furthermore, no ancient writer says that the Romans celebrated the day the decumanus had been established by the surveyors, as the Dies Natalis of the colony. This is a Nissen inference, but the town is not a templum. At the same time, the centuriation is not a templum.

Pierangelo Catalano, 1978, in his article on the spatial aspects of the Roman juridical-religious system, discusses of the "limited places according to decumanus and cardo mistakenly considered templa". He says this: "The opinion that all the places limited according to decumanus and cardo were templa is erroneous. Valeton clarified that the land divided by magistrates to be assigned to private individuals were not templa, nor the vineae (often constituted according to decumanus and cardo: Pliny, Nat. hist. 17,169) and the castra ("era detta impropriamente templum una parte dell'accampamento": Livy 41, 18, 8)". Isaac Marinus Josué Valeton analyzed the templum in his writings of 1893 and 1895, to clarify what was told in the Nissen's Das Templum of 1869. Let us add, and we will see it in detail later, that Valeton demonstrated that the town is not a templum.

As clarified by Valeton and reiterated by Catalano, the lands divided by magistrates to be assigned to private individuals are not templa. The subdivision of the land was fundamental for the foundation of Roman colonies. It was an act required for the distribution of lots to the colonists (from the end of the Republic, they were mainly army veterans). The land of the colony had to be freed from the previous occupants and then became the subject of parcellation. According to

Lorenzo Gagliardi, Foundation of Roman colonies and expropriations of land to the detriment of the indigenous people, MEFRA, the land was not free but occupied by indigenous people or other Roman owners.
A Roman colony was primarily made up of a vast area of agricultural land. If an urban center did not already exist, it was created ex novo. The literature of the Roman land surveyors, the "gromatici", is illustrating the land "centuriation", which is the survey and parcellation of the land into lots to be assigned to Roman colonists. The Gromatici literature does not talk about the foundation of the towns. For this reason, "ab oriente ad occasum, quod eo sol et luna spectaret" must be understood as referring to the decumanus' orientation of the colony, not of the town, which generally had a different orientation from that of the centuriated "ager". For the colony of Augusta Taurinorum (Turin), surveying data show that the town and the countryside had the same direction as their main axis (Borasi, 1968, Borasi and Cappa Bava, 1968). It could also happen that the assignment of land to settlers took place in a land of an already existing colony; the new centuriation replaced in whole or in part the already existing centuriation. Usually, the urbs of the previous colony was not destroyed. Mark Antony destroyed a town to install one of his colonies; he was harshly criticized by Cicero.

Actually, the land surveyor and his assistants subjected the land reserved for the Roman settlers to a careful topographical survey; after the survey, data were recorded on a map with the related assignment of lots (see the entry "limitatio" in the Epigraphic Dictionary of Roman Antiquities, Dizionario Epigrafico di Antichità Romane, 1959). The map is known as the "forma urbis". Any reference to the orientation of the centuriation grid is related to the need of having a faithful representation of the colonial survey. Only inexperienced surveyors oriented the grid with the sunrise, confusing this direction, which changes every day of the year, with the East cardinal direction: this is what we find told in the literature of Roman land surveyors (Libertini, 2018). After the subdivision, the lots had to be numbered for their assignment. The Romans followed a "matrix" numbering system, ordering from east to west and from north to south. However, exceptions existed. The outcome of this assignment of lots was reported in the Lex of the colony, a Lex which accompanied the map itself (forma urbis). The lex and map were displayed in the colony's forum, and a copy sent to Rome. Any map requires orientation; the one with respect to the East-West axis was right, and this was well known by Roman surveyors, who said that this orientation was perfect.

In the Gromatici literature (Libertini, 2018) it is not said that the orientation of the centuriation main axis, the decumanus, necessarily had to be towards the sunrise. Furthermore, in the Latin literature on the town foundation, there is no mention of the orientation of towns' decumani along the rising or setting of the sun. This is a hypothesis made later. The first to propose it was Heinrich Nissen, who justified the proposal of a decumanus oriented along the sunrise reporting some passages from Gromatici literature, choosing and forcing them in order to fit his theory, as evidenced by the first reviews of Nissen's book.

The perfect orientation - tell the Roman surveyors - is that according to the directions of sunrise on equinoxes, the east-west geographical axis, and of local noon (the meridian, north-south geographical axis). Centuriations rarely have such directions. In fact, the land surveyors say that the nature of the place, the presence of rivers and of main roads, the proximity to mountains and coasts, are the factors that control the orientation of the colony. In any case, inexperienced land surveyors existed who, instead of using the East direction, used the sunrise which changes every day.

Who was Heinrich Nissen

In the preface of "Archaeoastronomy in the Roman World", Springer, 2019, we find written: "While such important physicists as Heinrich Nissen and Norman Lockyer (active in the late nineteenth and early twentieth centuries) could be considered as the fathers of modern archaeo-astronomy, …". The editors of the book are archaeoastronomers. It is told: "important physicists as Heinrich Nissen and Norman Lockyer". Heinrich Nissen (1839-1912) was not an important physicist; he was not even a physicist. Nissen was a German philologist and historian. Nissen linked azimuth of decumanus with azimuth of sunrise. He has provided astronomical tables to aid the reader in possible comparisons. He certainly should be considered a modern archaeo-astronomer, and Clive Ruggles tells the same. About Nissen, information available in Wikipedia.

The lines of the world

Before addressing Heinrich Nissen's approach, and since we mentioned gromatici in the introduction, let's see what had been said by one of them, Frontinus,
Frontinus told that, according to Varro, the art of land limitation comes from Etruscan discipline. The haruspices had divided the world into two parts, calling that which was under the north part the right and that which was under the southern part the left, going from east to west as the sun and moon are looking at. Some architects also wrote that the well-oriented temples are those towards the west. The haruspices then, with another line, divided the land from north to south, and starting from the south they called a part "àntica" (front), and the other "pòstica"

(rear). On this basis our ancestors established how to measure the land, based on decumanus and cardo. But many, ignoring these principles, followed other criteria. And the example in the Campania countryside, around Capua, is given.

Haruspices seem had a quadripartite view of the world. The Roman ancestors had taken this quadripartition as a model for surveying science. Based on this world divided by the haruspices, the centuriation goes from east to west, because the sun and moon move towards the sunset. The literal meaning is therefore related to the direction of the decumanus. The sentence does not say that the decumanus was established "oriente sole", towards the sunrise, or "orto sole", at sunrise. From the mere citation of Frontinus' passage, no one can argue for the need of an orientation towards the sunrise on the day during which the decumanus is delineated. Moreover, the passage concerns the agrorum mensura and not the foundation of a town.

Frontinus' passage is commented by Pierangelo Catalano, in "Aspetti spaziali del sistema giuridico-religioso romano". Catalano's article recalls that problems regarding the division of the caelum (and of the earth) according to the disciplines of haruspices and àugurs exist. Haruspices and àugurs are different figures. We can find this explained by Cicero, in M. Tulli Ciceronis de divinatione, Libri I-II (two in one), edited by Arthur Stanley Pease, 1920, at the Archive link. Cicero stressed the difference: haruspices look at entrails of animals and àugurs look at the sky for the signs of Iuppiter.

Decumanus

Let us now look briefly at literature preceding the Nissen's Das Templum, to have a better picture of the framework of his work. Here is an excerpt from L. Lange. Philologus Berlin. Zeitschrift für antike Literatur und ihre Rezeption Volume 8. 1853, where the decumanus is defined. Karl Wilhelm Göttling, German philologist, is mentioned.

"Göttling leitete das wort von dicis und mane (sonnenaufgang) her, sprachlich sehr gewagt und sachlich geradezu unmöglich, weil der decumanus nicht auf den sonnenaufgang, sondern auf den sonnenuntergang hinweist". Göttling derived the word from dicis and mane (sunrise), but this linguistically impossible, because the decumanus does not point to the sunrise, but to the sunset. The orientation of the decumanus is towards the west and not towards the east. Nissen provides in Das Templum a different etymology based on the number ten. In his theory, he inverted the direction of the decumanus, towards the sunrise.

Roma Quadrata

At the basis of Nissen's theory, there is the square shape of the town, which is thus supposed to be a templum. Ancient literature tells that a Squared Rome, Roma Quadrata, existed. We will see that what was told by Nissen about Roma Quadrata raised many criticisms. Let us read from Thomas Henry Dyer, The History of the Kings of Rome, 1868. Publisher: Bell and Daldy, book published a year before Das Templum.

At the origin of Rome, we can find the "western half of the Palatine Hill with a wall erected round its base in a quadrangular, or rather lozenge-like, form; whence the name of Roma Quadrata. The wall, according to the well-known description of Tacitus, was built with Etruscan rites; the pomerium, or sacred space around it being marked out by a furrow made with a plough drawn by a cow and a bull; the clods being carefully thrown inwards, and the plough being lifted over the profane spaces necessary for the gates; whence , according to Cato, the name of porta, a portando, because the plough was lifted. *We are thus to consider a city founded with these religious rites as a sacred enclosure, in fact a templum, whose limits, the pomerium, marked the extent of the city's auspices.* This enclosure was under the protection of a deity, or deities, as Rome was under Jupiter, Juno, and Minerva. So also Veii was protected by Juno, and could not be taken, it was thought, till the deity had given her consent. Such was the original Rome; a little fortress on a hill" (Dyer).

Dyer continues: "We are thus to consider a town founded with these religious rites as a sacred enclosure, in fact a templum, whose limits, the pomerium, marked the extent of the city's auspices" and "by this inauguration of the pomerium, the whole city became, as it were, a templum". Therefore, Nissen is not the first to consider the town as a templum; he was the first to link the decumanus to the sunrise and to the Dies Natalis. As we show in the following discussion, the town is not a templum and therefore it is not subjected to any astronomical orientation of the decumanus. We will also talk in detail about the pomerium, and how the inauguration of the pomerium is not an act that it transforming the town into a templum.

Critical reviews of Das Templum (1869 and 1870)

Before Nissen's words on decumani and festivals of the Roman calendar, it is necessary to read some reviews that appeared as soon as Das Templum was published. Nissen's book aroused great interest, but the reviews were critical.

The review in *Zeitschrift für die österreichischen Gymnasien*, Hölder, 1869, of Das Templum, is quite

short and concludes by recalling how Nissen analyzes several temples to verify his assumption regarding their long axis oriented towards the sunrise. But Nissen - says the review - describes this section of his book - which promises relevant information if successful - only as a first attempt to penetrate a very dark region, and at the same time as an invitation to continue in the wake of his intuition. The analysis should lead to the determination of the religious significance of the celestial regions, obtained through the direction of ancient buildings, first the temples. In fact, this review tells us what archaeo-astronomers claim is the aim of their discipline, let us say, that to penetrate a very dark region, where their analyses should lead to the determination of religious meanings of celestial regions, obtained through the direction of ancient temples. The review was published the same year of Das Templum, 1869.

Let us pass to the Review in the *Philologischer Anzeiger*: Als Ergänzung des Philologus, Band 2. Jan 1870. Dieterichsche Buchhandlung. Pag.117. This is a very critical review, but definitely a very interesting one.

The review says that Nissen's book deals with a topic - the templum - that has certainly given much headache to anyone who has ever engaged in research on Roman antiquities. And in fact, in this regard, various scholars are mentioned in the review, such as O. Müller who dedicated a detailed investigation of the templum in his book on the Etruscans [Karl Otfried Müller, Die Etrusker, 1828]. The concept of the augural templum had therefore been generally considered, but its practical application in many areas of the religious and political life of the ancients still required a clear definition. Nissen undertook this work.

Anyone who simply looks at the index of Nissen‘s book, or browse it, will be initially surprised by the various reports in which the doctrine of templum is implemented. It begins with limitation, the principles of which Nissen considers as the basis of the entire templum doctrine, then the book deals with an application of this doctrine to the Roman military camp arrangement and to the layout of Italic towns. At the end of the relevant chapter, Nissen concludes that the geometric principles of this doctrine must be an ancient characteristic of the Italic nation. Such principles could not have been achieved anywhere else; in fact, at the beginning of the migration into Italy, in the Po Valley, the theory was conceived. Nissen sees the river Po as the decumanus of this large plain and its tributaries as the cardines. This point of view pushes Nissen, in Chapter 4, to a digression on Italic traditions to extract historical evidence for the above supposition.

In Chapter 5, Nissen arrives to propose a sort of Italic constitution, starting from the house, the smallest constitutional element firmly anchored to the ground, where we have the same basic elements which are determining the layout of the town. Chapter 6 returns to the orientation of the templum to apply it to the ancient worship places. Consequently, the following is stated: the long axis of each temple stands in religious relationship with the celestial regions. According to the teachings of the àugurs, the vault of heaven or its horizon is divided into sixteen regions, each of which is assigned to a certain set of gods as dwelling place. Therefore, when arranging the temple, the procedure was to turn the axis of the temple to the corresponding region of the sky where the deity, to whom the temple was dedicated, resided. Even more precisely, this theory suggests that there was a specific relationship between the direction of the temple's axis and the date of its foundation. In many cases it was oriented at the point on the horizon where the sun rose on the day of the temple’s foundation. According to this, from the orientation of a temple it would be possible to draw conclusions about the day of its foundation and the deity to which it was dedicated, and vice versa. Some surviving temples are further examined to show the agreement of this theory with data obtained from the ruins. Finally, astronomical tables calculated by Berhard Tiele are added with instructions for use.

It must be admitted - says the review - that the author (Nissen) has brought his thesis into ever wider areas: it is surprising to see what, and how, is drawn into the field of his observation. He himself will certainly have had, in doing his work, the feeling of having found a new fruitful truth, which was giving him the key to understand many mysteries related to the first era of the Italic nation; and part of this feeling will also be communicated to the reader, because the ideas on which the book is based are brought forward with a richness of wit and insight which must have a stimulating effect from beginning to end. However, when you look at this work again, some weaknesses emerge, both small and large, some of which the reviewer wants to draw the reader's attention to.

As already mentioned, the basic concept of the doctrine of the templum had been consolidated for a long time. Regarding the classic words of Varro, let's be clear, the author (Nissen) expresses himself too carelessly when he says about the distinction of templum in caelo, in terra and sub-terra, that the latter category no longer has anything to do with the Italic people. He expresses himself in the following manner: the imagination and description of the underworld are matter regarding the world of Hellenes; for Italic populations, the depth of the underground hides only darkness, in which the

geometrically organized mind cannot find its borders either with the physical eye or with the spiritual eye. Yet there was certainly at least one underground templum in Rome, the Consi altar in the Circus Maximus (see Becker alterth. I, 468), also closely connected to the foundation of Romulus' pomerium. The Mundus, also called Roma Quadrata, seems to be understood as an underground templum (Fest. p. 258 M.). In general, it is striking that Nissen did not use all information we received on the establishment of the pomerium for his theory. Tacitus is so precise that conclusions can be drawn with a certain degree of accuracy.

Nissen says (p. 6): “Moreover, as a place where people gather, the town as a whole is a templum... The border of this templum forms the pomerium... The same goes for the area... of the augural temple, the same, are determined by àugurs”. Very good. But how do the town walls, the enclosure of the urban center, relate to the pomerium? A hint of this is only occasionally given when discussing the layout of Pompeii (p. 74). Part of the walls was demolished when the Sullan colony was added. "Since the city walls lost their practical significance as a fortification, it remained predominantly as a religious item only, and the latter was enough, as was the case in Rome, where the extended pomorium (sic) was indicated with terminal stones." It is not clear from these words whether the Pomerium and the walls originally coincided or not. This question is of the utmost importance for the history of the origin and development of Rome and for its urban topography. I reached the conclusion [says the author of the review] that the layout of the most ancient pomerium given by Tacitus actually corresponds to a square figure, which is circumscribed around the base of the Palatine Hill, and that, on the other hand, the walls within this space ran along the naturally or artificially rugged slopes of the mountain without touching at any point the pomerium marked by the “sulcus primigenius”. The pomerium thus designates the sacred space consecrated to the town’s divinity, expressly given as a square for Rome, within whose limits the town walls run in a concentric and less regular pattern for practical reasons.

This distinction between the mathematically regular space dedicated to the gods and the space used for practical purposes should, according to the author of the review, also be extended to the other practical uses of the templum. A surrounding land (see Marquardt alt. 4, 225) regularly belongs to the building of a temple, or at least frequently; the burial area is often much larger than the grave itself, and it is sometimes round, sometimes oblong, sometimes square, or otherwise shaped. The relationship of the Curia Hostilia with the Comitium, the latter was a templum, of which the Curia occupied only a part, offers a similar case (see Ann. of the inst. 1860, 131 ff.). What guarantee is given, that the axis of the temple (building) ,rather than the axis of the entire augural templum consecrated to the divinity, was oriented according to the augural theory? In the latter case, couldn't the building itself be arranged according to the conditions given by the ground surface, the adjacent buildings, the streets, or the squares?

These objections to Nissen's investigations may suffice for the moment. Going into a further detailed explanation would take too far for a review. However, we point out some difficulties. Nissen says Fr. 3 that according to clear ancient testimonies, the Romans had been content to divide the celestial templum into four parts, while the Etruscans had formed it into sixteen parts. In Nissen’s Chapter 6, we can find analysed the remarkable passage by Martianus Capella, in which a series of divinities is divided into sixteen regions. Nissen denied this division to Etruscan people and declared "Roman in all respects", one of the "most important traditions of the Italic religion", since "in the form where the fragment appears there is no trace of Etruscan divinities”. It could be, but wasn't the Etruscan doctrine of the gods, at least in its later form, a mixture of Greek, Italic, and native mythological fragments? When the Romans spoke of such doctrine, did they not usually use the appropriate names of the Roman deities? What is quoted on page 186 already demonstrates this fact enough. If Martianus does not name Etruscan deities, couldn't he intentionally omit them from his incomplete knowledge? In short, the whole application of this fragment to the Roman theory of the augural temple is forced; and, according to ancient testimonies it could only be traced back to the Etruscan theory of lightning; and it is well known how rigorous and quibbled the distinctions of àugurs were in this regard, and that we must be careful and not generalize too easily on the basis of the particular.

Of course, it is worth investigating Nissen's point of view to see how far he can go with these hypotheses, and for this reason we must take him into consideration. The chapters 6,7 contain interesting material. However, Nissen should have drawn attention to some limitations to which his conclusions must be subjected. Not all templar buildings are temples, Nissen himself reports Varro, and not all those that had a rectangular shape were temples, and who knows how many others were not. However, Nissen also considers the Roman Pantheon [which is round] as a templum (p. 223 ff.), for the niches of which he names individual gods as probable owners, and whose orientation is still of particular importance for his theory (p. 226).

Nissen has crossed the line several times, and various observations could still be made. But once again, the work contains a wealth of ingenuity and will certainly provide sufficient stimulus in order to subject this important field of antiquities to renewed and thorough investigation. We would only like to express the hope that the foundations of the investigation will first be made more certain, through a more complete and critical compilation of the various ancient written sources, which are giving information on many, often strange aspects of the augural discipline. In particular, however, the theory of the templum seems to us that needs to be applied with great attention to the layout of Rome and to the historically verifiable expansions of its pomerium. What Nissen says in this regard (p. 85): «The decumanus maximus of the Servian city is the sacred road, which separates the two northern regions from the palatine and the suburana», cannot be in agreement with the local existing conditions for sure. And in this manner the review in the Philologischer Anzeiger ends.

To the two reviews given above, we must add the review in Italian by Giulio De Petra. The three reviews immediately follow the publication of Nissen's book. Giulio De Petra's entire review is presented in Zenodo. De Petra highlights several weaknesses of Heinrich Nissen's approach. In particular, De Petra finds them in the selection and interpretation of ancient sources. And this is also said in the review in the Philologischer Anzeiger. Nissen appears to us as a person who moves only seeking confirmation to his theory, without taking into consideration everything that does not fit his thinking. Rather than looking for all the relevant proofs, Nissen constructs his arguments so that he receives only the answers that support his ideas. Giulio De Petra rightly points out this fact. For De Petra's biography see the link in Wikipedia

A fundamental criticism to Nissen's theory was provided by Isaac Marinus Josué Valeton who analyzed centuriation and town in complete detail, in his works of 1893 and 1895. He demonstrated that they are not templa. About Valeton, see please Wikidata . We will consider Valeton in the following.

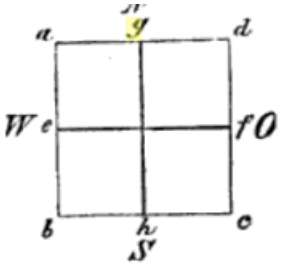

Fig. 323.

The Roman templum

Let us see some sentences from "La vita dei greci e dei romani, ricavata dagli antichi monumenti", by Ernst Karl Guhl and Wilhelm Koner, 1875, translated into Italian by Carlo Giussani. The discussion is about the quadripartition of the templum. Guhl and Koner work had been influenced by Das Templum.

In order to take the auspices and recognize the signs that appeared to the àugur as favourable or unfavourable, the book says that space was divided, or,the vault of the sky, by a line from east to west (fig. 323) in two parts, one of the day and the other of the night; and by means of another line that cut the first at right angles, that is, from north to south, another division was made in two sections too, that is, a morning and an evening section. The first line was called decumanus, the second cardo; and thus, the whole territorium was divided by these two crossed lines into four equal regions of square shape [Guhl & Koner].

The book explains that the àugur took his place at the point of intersection (decussis) of the two lines, and there he proceeded with his observations [Guhl & Koner]. W*hat did the augur observe? What were the signs he was looking for? Lightning and voices of birds*. Signs that appeared on the left side were always considered happy; those on the right as unfavourable. This division of the templum into four main regions was usual in the times of Cicero and Pliny, when the ancient discipline was no longer in use. Regarding the orientation of the Roman templum - tells the book – it originates from the Etruscans, who divided the sky into sixteen regions. The book tells that this division required an exact observation of the stars (Guhl & Koner). Guhl and Koner stress that the need of an astronomical orientation "was made clear by the acute research of Nissen (Das Templun)". Guhl and Koner justify this fact, because "we do not find at all that all the Roman temples were oriented in one and the same direction. That is to say: the orientation of the temple axis was regulated according to the point of the horizon at which the sun rose on the day in which the *first stone* of the temple was laid, which day was both the Dies Natalis and the main festival of the god to whom that temple was consecrated". As I have discussed in the "Cronologia dell'Ara Pacis Augustae", HAL, the Dies Natalis of a temple was coincident with its dedication, and not with the day when the first stone was laid. For a temple, the religion prescribed a sequence from its constitution to its dedication, passing through inauguration and consecration.
Let us continue reading the book. "The ancient Etruscan orientation of the temples, from north to south, seems to have been adopted only in rare cases

for Roman temples, as shown by the astronomical determinations of many temple axes made by Nissen. Since the Roman was facing east when he prayed, the sacred image that inhabited the temple and to which the prayer was praying had to face west." [Guhl & Koner]. Let us note that in Rome "the orientation of the building is usually linked to the urban layout; among the few cases of astronomical orientation are the temples of Largo Argentina, which have their front facing east" (Castagnoli, Topography and urban planning of Rome, 1958). They are oriented towards the geographic East.

Martin Erdmann (1883) and his review

Martin Erdmann (1883) reviewed the Nissen's work in his Zur Kunde der hellenistischen Städtegründungen, Strassburg. Erdmann tells that in Nissen's theory, the question of the Greek urban planning moves to a completely different area. That is, to the Italic limitation based on the two lines Kardo and Decumanus Nissen has posed his law which says that the direction of the Decumanus corresponds to the sunrise or sunset directions on the day the Templum was founded, that is, the space for the military camp, town and temple, is measured with the corresponding religious consecration. [To Nissen, military camps, towns and temples are templa] The day of the foundation is the birthday of the Templum, Dies Natalis, because - like every human being, deity and temple of a god or goddess - the Templum in its various applications has its birthday. From this it follows that from the ruins of a town or a temple we can deduce the day of its foundation, which for the temple is also the birthday or festival of the god worshiped there. Of the main street of the town, or the longitudinal axis of the temple, it is considered the deviation of it from the exact east-west line, measured in degrees, then the date is calculated astronomically - according to the tables in Das Templum - of the month in which the sun rises with that azimuth. Conversely, if the day of the foundation is known or, in the case of a temple, the festival of the god to whom it belongs, the direction of the main road or axis of the temple can be calculated.

Erdmann is stressing that this rule does not apply to all Italic temples. Nissen himself distinguishes three classes, the first of which includes those temples whose longitudinal axis is in direct relation to the sun in the manner previously indicated; in the second class, there are temples with an axis from north to south, and the transverse axis directed towards equinoctial sunrise or sunset; and finally, there is the third class where both axes have no relation to the sun. With one exception, the Temple of Apollo at Phigalia, the Greek temples, which have been preserved to present, all face east, that is, in such a way that the frontal entrance and the face of the worshipped image faced sunrise and the morning sun streaming through the door. The specific direction varies between 248 and 298 degrees, with east taken as 270 degrees. But all points are within the sunrise boundaries that pertain to those regions (latitudes). Nissen immediately concludes that this rule applies not only to Greek temples, but also, quite generally, to Italic temples.

We can find stressed by Erdmann, that the question of orientation, in particular for the urban settlement, is one of the most interesting regarding ancient topography and requires further clarification. For Italy, Wolfgang Helbig gave a very valuable contribution, as this hypothesis of Nissen was verified to be related to the true point of the sunrise, and not to the exact [equinoctial] one, by studying the many stilt houses in the Po Valley which have been examined. Helbig says that oblong partitions of the ground were formed, oriented towards the four regions of the sky. However, apart from one case, the orientation is not astronomically exact, but it seems empirically determined by the points where the sun rises and sets during spring. There is an interesting case of terramare - this is the name of the places with stilt houses - and it is that of Montecchio. Here there are three sets of stilt houses, one set above the other. While the two underlying arrangements are oriented in the usual empirical way, the arrangement of the upper layer corresponds exactly to the meridian. And this too, as Helbig himself says, could be due to the fact that the housing system was placed at the time of the equinox. For Greece, the search is made significantly more difficult by the Greek calendar, which, with its lunar months and relevant changes, is very resistant to the conversion to Julian dates. However, according to Erdmann, it is necessary to examine whether and to what extent the Nissen's rule also applies to Greek urban systems: a question that is still completely open.

The form of the templum and the dwelling places of gods

The review in the Philologischer Anzeiger, 1870, tells us that the concept of templum was well known at the time. Therefore, let us see from Der Salomonische Tempel by Carl Bähr, 1848, how it had been proposed before Nissen. We are interested to the square shape of the templum.

Carl Bähr writes that the square, as the fundamental form of the house of the Divine (world or sky), was used as a model "for the enclosure dedicated to the divinity associated with the idol, the temple. And in fact, this has been demonstrated with remarkable consistency since the earliest times in Asia as in Africa, in Europe as in America. The quadrilateral, and especially the perfect square, appears as the basic

form of the abodes of the gods, and for this reason the cosmic character of this form is expressed in most cases in the fact that the quadrilateral temple is a representation of the celestial quadrilateral" (Carl Bähr).

About the temple as viewed "by the youngest people of the ancient world, the Romans", Carl Bähr tells that "with the Romans, the cosmic character of the templar form emerges particularly clear. The word templum originally referred to celestial space, as it was divided into certain regions for the sake of àugury. The templum itself was strictly in the shape of a quadrilateral, like each of the regions, which the Romans assumed as four, the Etruscans four by four, the gods were divided into them. If a home for the gods was to be established on earth, the àugur had to transfer the heavenly templum to earth. With his crosier (lituus), pronouncing a sacred formula, he drew the line (cardo), that was the meridian line of the place, then he moved on to the decumanus, and then by means of drawing parallel lines he completed the square, of which he marked the four corners with stakes. Therefore, Servius explains the word Templum as locus, palis aut hastis clausus, modo sit sacer. This is how the upper templum was transferred to the earth, where the lower templum was considered to be in a magical connection with the upper one". Carl Bähr is also observing that, however, "round temples can also be found among the Greeks and Romans, but they are rare and in any case this form should not be considered strictly the holy one, as it was noted for the round temple of Vesta. Incidentally, this form also has a 'cosmic character', in which Plutarch expressly notes that this round structure is an image of the universe, the centre of which, according to Pythagorean teaching, is the hearth of fire, which is called Vesta!"

Now, let's move on to a publication following Das Templum. It is "Har-Moad or the mountain of the assembly. A series of archaeological studies", di Orlando Dana Miller, 1892, who is mentioning the Das Templum by Nissen. Miller is telling that "Fundamental … is the notion that God dwells, which was inseparable from the notion itself of divinity. The universe, or the house built by the Deity for his own habitation, is thus the model upon which all artificial temples or dwellings of God are constructed. From thence proceeds the fact, as already stated, that the theories of the cosmos and of the temple are substantially the same; so that if we would understand the ancient cosmogonies, it is necessary first to study the doctrine of the temple". Miller considered – as he is explicitly declaring - the Nissen's theory beyond any question. However, mistakes in Nissen's theory have been evidenced by De Petra, by the reviewer of Philologischer Anzeiger, and by Martin Erdmann. These scholars stressed the errors in Nissen's theory. We will then arrive at the conclusive analysis made by Valeton, who says that the divided lands and towns are not templa.

Miller, in his book, introduced several extracts from Dr. William Smith's - Dictionary of Greek and Roman Antiquities. "The ordinary manner of taking the auspices was as follows. The àugur went out before the dawn of day, and, sitting in an open place with his head veiled, marked out with a wand the divisions of the heavens. Next he declared, in a solemn form of words, the limits assigned, making shrubs or trees, called tesqua, his boundary on earth correspondent to that in the sky. The templum augurale, … was divided into four parts: those to the east and west were termed sinistre (left) and dextrae (right); to the north and south, anticæ (before) and posticæ (behind).". In Miller's discussion then, we can find told that "As partitioners of land, the Agrimensores were the successors of the àugurs". This is not true; land surveyors are technicians while àugurs are priests of the Roman state and the two figures coexisted. Miller continues telling that "the word templum, like the Greek temenos, simply means a division; its application to signify the vault of the heavens was due to the fact that the directions were always ascertained according to the true cardinal points. At the inauguration of a king or consul, the àugur looked toward the east, and the person to be inaugurated toward the south". The person to be inaugurated "was considered the chief, and the direction in which he looked was the main direction". Miller therefore stresses that, in the case of land surveying, "the àugur looked to the south; for the gods were supposed to be in the north, and the àugur was considered as looking in the same manner in which the gods looked upon the earth. Hence the main line in land surveying was drawn from north to south, and was called Cardo, as corresponding to the axis of the world; the line which cut it was termed Decumanus, because it made the figure of a cross, like the numeral X. These two lines were produced to the extremity of the ground which was to be laid out, and parallel to these were drawn other lines, according to the size of the quadrangle required. The limits of these divisions were indicated by balks, called limites, which were left as high roads, the ground for them being deducted from the land to be divided." (Miller). For what is regarding the Cardo, Miller adds that the term is related to the pivots of doors. "The form of the door … makes it manifest why the principal line laid down in surveying land was called Cardo; and it further explains the application of the same term to the north pole, the supposed pivot on which the heavens revolved. The lower extremity of the universe was conceived to turn upon another pivot, corresponding to that at the

bottom of the door; and the conception of these two principal points in geography and astronomy lead to the application of the same term to the east and west also. Hence our four points of the compass". Miller also adds that the two lines, Cardo and Decumanus, are providing a "relation between the temple and the cosmos, and of a direct analogy in respect to their theories. The cardinal divisions of the cosmos constituted it a temple, and the divisions of the temple, according to the cardinal regions, constituted it an image of the cosmos".

Miller is describing the Nissen's point of view about ager (the land surrounding the town) and urbs (town). "As the notion of the temple proceeded from that of division, so the town or city divided into squares and the entire territory of the state cut up into districts were both regarded in some sense as temples" (Miller mentioning Nissen). "The principles according to which the city was laid out were those of the system of land measuring. The Decumanus and Cardo maximus determined the direction of the two principal streets of the city dividing it and the territory occupied by it into four regions. In the various diagrams illustrating the scheme of these divisions, the cross forms the basis. Our authorities represent those forms as most complete where the intersection of the Decumanus and Cardo maximus falls exactly in the centre of the city, or the forum; and it is from this point, through four gates, that the two main lines extend each way over the entire country, which is thus like the city divided into four regions." (Miller mentioning Nissen). And also "The author [Nissen] shows that the military camp and even the vineyard, by reason of these divisions, since they were laid out with reference to the cardinal regions, were regarded in some sense as temples. The same, also, as regards the private dwellings". Therefore, according to Miller who is mentioning Nissen, in the places where the fundamental notion of division appears, we have a templum. And Miller, using the Das T'emplum, is stressing that "All historical development proceeds from two co-related ideas, property and secure possession. Both are summed up in the notion of division, separation. As the nation separates itself from the mass of nationalities, the race from the races, so the town is an off shoot from other towns, the class from other classes, the house from other houses. This notion of separation, of division, was incorporated by the ancients in the Templum , Greek Temenos, " a cut - off section , from the root *tem,* to cut." (Miller mentioning Nissen).

Orlando Dana Miller, 1892, does noy apply any critical review of Nissen's theory. The first detailed analysis of the Nissen's templum was made by Isaac Valeton with the works of 1893 and 1895. Note that the concept of "town", in Nissen, implies the separation from the other towns. *This is not true, because the town is characterized by the pomerium, which legally separates the urban space, where it is not possible ploughing the soil, from the space of the ager, the agricultural land.* The review in the Philologischer Anzeiger, 1870, is right: Nissen does not address the concept of pomerium, which is both a religious and legal concept. He doesn't confront himself with the pomerium, because the pomerium doesn't fit his theory of the templum. As it is regarding the lands of the colonies: they are not separated by any border limit. The borders of the colonies are established by the register of land maps. There is no "pomerium" of the colony.

As seen from the previously mentioned literature, Nissen's work was well known, and had been reviewed, commented, and criticized. Unfortunately, also accepted without a proper analysis. Everything was then forgotten, to such an extent that, after 150 years, we find the same things told without mentioning Nissen and, above all, without remembering the criticisms. In 2019, I recalled the existence of Nissen's work. Archaeoastronomy could use it to support its theses, but first of all, it must highlight that criticisms exist to the Nissen's theory that considers towns and centuriation oriented towards the sunrise. The well-posed criticisms are due to Valeton, Erdmann, Le Gall, Castagnoli, Catalano, and others. Therefore, I have to strongly underline that Valeton and Erdmann did not endorse the theory of the solar orientation of the templum. I am stressing this fact in order to avoid any misreport of their works.

Orientation of the towns

Let us consider Magli 2007. Magli does not mention Nissen.

"The foundation of a new town followed a ritual, which has been described by many Roman writers" [Magli]. "This ritual, as is universally known, comprised the observation of the flight of the birds and the tracing of the boundaries by ploughing a furrow. The art of taking auspices from the flight of the birds was ruled by the Etrusca Disciplina, the collection of writings of the Etruscan religion" [Magli]. "A fundamental part of all the rituals of the *aruspexes* was the individuation of the *auguraculum*, a sort of terrestrial image of the heavens (*templum*) in which the gods were "ordered" and "oriented" starting from north in the hourly direction" [Magli]. An example of auguranculum is at Bantia. "The individuation of the templum thus required astronomical orientation to the cardinal points (Aveni & Romano 1995, Pallottino 1997); at the corresponding "centre" (mundus) a deposit of foundation containing first produces of the fields

and/or samples of soil from the native place of the founders was buried. … proofs of foundation deposits have been discovered in the excavations of the Etruscan towns Misa and Tarquinia, while for the Roman period clear traces of the foundation ritual and of his connections with astronomy have been found in Cosa and in Alatri" [Magli, 2007]

We find it said by Magli that the haruspices identified the auguranculum, which was an earthly representation of the templum, where the gods were ordered and oriented, and that at the center of the templum there was the mundus. About Bantia, Magli cites Torelli (Torelli M., 1966). Note that haruspices are religious officials different from àugurs: the difference between haruspex and àugur is that haruspex is a soothsayer who practiced divination by inspecting entrails while àugur is a priest who inquires the divine by the behavior of birds or other animals, or by omens regarding celestial phenomena or unusual occurrences. It was the àugurs who used the templum. According to Cicero, soothsayers dealt with the entrails of animals.

Magli tells that, "according to the Agrimensores, their discipline included a symbolism connected with the sky, and this symbolism was ancient as much as the rules of the Disciplina. It goes without saying that indeed many examples of centuriations oriented to the cardinal points do exist: … In spite of this quantity of instances, the existence of astronomical references in the planning of Roman towns has been repetitively negated, or admitted only for functional, rather than symbolic, motivations" [Magli]. Magli is referring to the book by Adam, J.P. Roman Building: Materials and Techniques Routledge, 1999, who endorses Joël Le Gall, Les romains et l'orientation solaire. MEFRA, 1975. About Le Gall, Magli tells:
" his position assessed after the work by Le Gall (1975), who maintained that:
1) the Agrimensores just invented the symbolic and sacred content of their science, claiming for a derivation from the Etruscan Disciplina; 2) the astronomical orientation mentioned by them regards in any case only the centuriation procedure, and therefore cannot be extended to the towns; 3) as a consequence, there is no astronomical content in the planning of the roman towns." [Magli, 2007]

Regarding the first point, Le Gall does not say that Roman surveyors invented their symbolism. And, let me stress, it is true that surveyors talk about the agricultural land, ager, and not about the town, urbs. As F. Haverfield observed in his Ancient Town-Planning, 1913, the literature of the gromatici, the Roman surveyors, do not provide information on towns. They just say that the orientation of the urbs is generally different from that of the ager. Therefore, what is said about any astronomical orientation of the ager cannot be applied to towns. The town is separated from the ager by a border, the pomerium, which is also a legal limit.

At the link to SSRN a translation of the Le Gall's article is provided. If we mean that the surveyors used astronomy to orient the survey of the territory, and consequently have a precise map of it, then astronomical orientation is generally valid for both the territory and the town. If, by "astronomical content", we mean that the orientation of the decumani towards the rising or setting of sun, moon or stars was a symbolic orientation, then Le Gall is right because this is not found in Latin literature. Now let's try to understand why astronomical orientation is denied. We will see that orientation is denied because the urbs and the ager are not templa. So, let's start from the Etruscan rites.

Etruscan Rites
In Frontinus' words we find mentioned the Etruscans, the aruspices (soothsayers) and Varro.
Regarding the Etruscans, Varro in De lingua Lat., 5.143 says that in Latium many founded villages according to the Etruscan rite. After having yoked two oxen ahead, a bull and a cow inside, they plough a furrow; they did this for religious reasons, on a day when they took the auspices, in order to be protected by a ditch and a wall. They called the place from which they extracted the earth the "sulcus" and the "murus" the earth thrown inside. The perimeter that emerged behind these two elements was considered the beginning of the town; and since it was located behind the wall it was called pomerium; it was the limit of urban auspices". This passage immediately recalls the foundation of Rome by Romulus.

Is Varro mentioning the decumanus? No. Does Varro mention the sunrise? No.
Here what we find in Pierangelo Catalano's article, Aspetti spaziali del sistema giuridico-religioso romano, (1978). "According to the theology of the first century BC, Rome was founded Etrusco ritu: see Varro, De ling. Lat. 5, 143, ... Plutarch, Rom. 11 ... It is impossible to determine the age of this tradition (which many consider an anticipation of the urban layout carried out during the 'Etruscan monarchy'). Basanoff, by means of a comparison between archaeological data and literary tradition, excludes that the first delimitation of Rome (the so-called Roma Quadrata of the Palatine) included a sulcus-murus, that is, a pomerium in the Etruscan sense. However, it seems to be sure that the limits of Roma were set with divine approval: the àugural approval of the town limits must have been common to the Italic populations" (Catalano).

According to Catalano, thanks to the Etruscus ritus, Rome was born in a 'point of the space-time', in which the life of the Populus Romanus Quirites began, marked by Iuppiter, and thanks to Romulus, king and àugur. Not haruspex, àugur! The concept of Ritus is connected "to the spatial (as well as ethnic) aspects of the juridical-religious system. Within the system, the Graecus ritus is distinguished from the Romanus ritus"; and then a distinction is made between the Etruscan rite, "and the Gabinus ritus: the first in relation to the Etruria land (or ager Etruscorum), and the second in relation to the ager Gabinus" [Catalano, 1978]. "The use of the notion of ritus emphasizes the need for the founder to conform to a pre-existing divine order. Well, the activity of haruspices generally concerns rites: the Etruscorum books, concerning haruspicina in a broad sense, are divided into haruspicini, fulgurales e rituales" [Catalano, Cicero, Festus]. Rituales nominantur Etruscorum libri, in quibus perscribtum est, quo ritu condantur urbes, arae, aedes sacrentur, qua sanctitate muri, quo iure portae, quomodo tribus, curiae, centuriae distribuantur, exercitus constituantur, ordinentur, ceteraque eiusmodi ad bellum ac pacem pertinentia. Almost all, indeed. It starts with the foundation of the towns (condantur urbes), then we find the consecration of altars and haedes (arae, aedes sacrentur), then we have the holiness of "murus" and consequently the "ius portae". As explained by Elena Tassi Scandone, in "Sacer e sanctus: quali rapporti?", sanctitas is proper of murus, whereas the gates, which are breaking the murus, require the ius portae. This different condition was preserved until the end of the 1st century BC, as can be inferred from a text by Cicero, De natura deorum.

"The Populus Romanus Quirites, its magistrates, its priests and its senatus have constant relationship with the Etruscan rituals, a relationship characterized both by original derivation and by permanent diversity. Both derivation and diversity belong to the Romulus' religion (religiosity): the foundation of the urbs Roma (with the mundus and the pomerium) and the distinction of the ager Romanus from the land of the Etruscans" [Catalano, 1978]. This shows that there was a space-time origin point of the Quirites.

Haruspices work according to the Etruscan discipline. Catalano, 1978, notes that in Latin literature, the interpreters of the 'mind and will' of the Gods, according to the Etruscan divinatory technique, are called haruspices. Catalano stresses that we must say that typical of Etruscan divination was to seek the future, while the aim of Roman divination was to know the will of God, that is, essentially, his approval or disapproval of human actions, even those already completed. Bouché-Leclercq states that the Etruscan soothsayers adapted themselves to the needs of Rome.

According to Cicero, haruspices had to inquire the "exta degli animali sacrificati domi militiaeque; la fulguris conditio; l'interpretatio e la procuratio dei prodigia." (Catalano) The first mentioned is the interpretation of the entrails of sacrificed animals, to see if the sacrifice was appreciated by the god. If appreciated, it was a good sign (hostiae bene accette). "Gli exta sfavorevoli, in quanto significavano semplicemente il rifiuto delle hostiae da parte del Dio, richiedevano l'immolazione di nuove vittime (hostiae succidaneae). Infatti, gli *auspicia* sfavorevoli proibivano l'atto per il quale si erano manifestati, per tutta la giornata (diem diffindere, differre, vitiare)" [Catalano]. The bad exta, being the rejection of hostiae by the god, required the immolation of new victims (hostiae succidaneae). Actually, the unfavorable auspicia prohibited the act, for which they had manifested themselves, for the whole day (diem diffindere, differre, vitiare).

Towards the end of the Republic, the ancient Roman àugural art reduced to a simple set of formalities. However, the non-binding character of the haruspicine's deductions remains unchanged, as opposed to the binding one, clearly visible also in political life, of the Roman technique of the auspicia, controlled by the àugurs (Catalano, 1978). Let us be careful, we find here a fundamental religious character, that of the àugur. And, Romulus was an àugur.

The Templum (Catalano)

Let us consider what Catalano (1978) writes about the templum. A first definition of "templum" had been given by Varro, De ling. Lat. 7, 6ss.: templum tribus modis dicitur: ab natura, ab auspicando, a similitudine; ab natura in caelo, ab auspiciis in terra, a similitudine sub terra. According to other sources (among others, Gellius) this definition distringuishes the templa in terris, the locus designatus in aëre (Servius) and the locus auguratus (o templum inauguratum). Catalano writes that the "templum inauguratum e locus designatus in aëre sono fra loro connessi (come dimostra il fatto che Varrone li comprenda nella categoria del templum in terris), tuttavia è gravemente errato confondere le due nozioni". That is, the templum inauguratum and the locus designatus in aëre are linked but they are different entities. In a note, Catalano stresses that "la confusione delle due nozioni si trova nella più antica dottrina, secondo Niebuhr, Rubino, Mommsen, Valeton, e anche nelle importanti opere di A. Bouché-Leclercq, 1886. Più tardi, il Bouché-Leclercq accettò sostanzialmente i risultati del Valeton". The confusion of these two entities was present already in the ancient literature. Confusion remains in recent literature, as in Baranger e De Francisci.

"Il locus designatus in aëre (che la dottrina più attenta

chiama 'templum aërium', 'Schautemplum') è costituito per unilaterale attività di chiunque consulti Iuppiter attraverso i segni ex caelo o ex avibus; il templum inauguratum (che la dottrina più attenta chiama 'templum terrestre') viene costituito in conseguenza della domanda di un àugur e della risposta affermativa di Iuppiter". The locus designatus in aëre (which the most careful doctrine calls 'templum aërium', 'Schautemplum') is established by the unilateral activity of anyone who consults Iuppiter through the signs, ex caelo or ex avibus; the templum inauguratum (which the most careful doctrine calls 'templum terrestre') is constituted because of the question of an àugur and the affirmative response by Iuppiter. As we can see, in Catalano's explanation we find the àugur. "Ai templa in terris è connesso il templum in caelo: simiglianze e differenze appaiono: nell'orientazione (e nella divisione), nella limitazione." The templum in caelo is connected to the templa in terris: similarities and differences appear in orientation (and division), and in limitation. After defining the templum, Catalano discusses orientation, subdivision and limitation.

"La divisione del templum in caelo ci è così riportata da Varrone: Eius templi partes quattuor dicuntur, sinistra ab oriente, dextra ab occasu, antica ad meridiem, postica ad septemtrionem (Varrone, De ling. Lat. 7, 7). Tale divisione del tempio celeste non trova completa corrispondenza nella divisione del locus designatus in aëre, quando il soggetto che consulta Iuppiter sia orientato verso oriente" (si veda Livio e Isidoro, locus designatus ad orientem a contemplatione templum dicebatur. Cuius partes quattuor erant: antica ad ortum, postica ad occasum, sinistra ad septentrionem, dextra ad meridiem spectans)" (Catalano). Catalano stresses that we have a complete correspondence when the person is oriented towards the noon.

The templa inaugurata had various orientations. A general criterion is given by Vitruvius, not for all the templa but for those in which an aedes had been consecrated (Catalano mentioning Vitruvius, De arch. 4, 5. Regiones autem quas debent spectare aedes sacrae deorum immortalium, sic erunt constituendae uti si nulla ratio inpedierit liberaque fuerit potestas, aedis signumque quod erit in cella conlocatum spectet ad vespertinam caeli regionem, uti qui adierint ad aram immolantes aut sacrificia facientes spectent ad partem caeli orientis ad simulacrum quod erit in aede, et ita vota suscipientes contueantur aedem et orientem caelum ipsaque simulacra videantur exorientia contueri supplicantes et sacrificiantes. Sin autem loci natura interpellaverit, tunc convertendae sunt earum regionum constitutiones, uti quam plurima pars moenium e templis deorum conspiciatur. Item si secundum flumina aedes sacrae fient, ita uti Aegypto circa Nilum, ad fluminis ripas videntur spectare debere. Similiter si circum vias publicas erunt aedificia deorum, ita constituantur uti praetereuntes possint respicere et in conspectu salutationes facere. On the other hand – Catalano notes – according Igins, it seems that the general criterion changed ... non omnis agrorum mensura in orientem potius quam in occidentem spectat, in orientem sicut aedes sacrae. Nam antiqui architecti in occidentem templa recte spectare scripserunt: postea placuit omnem religionem eo convertere, ex qua parte caeli terra inluminatur".

We can find that in Rome, the orientation of the building is usually linked to the urban layout; among the few cases of astronomical orientation, we can find the temples of Largo Argentina, which have their front facing east. "Di fatto si osserva che in Roma "l'orientamento dell'edificio è di solito legato al tracciato urbano; tra i pochi casi di orientamento astronomico sono i templi del largo Argentina, che hanno la fronte volta ad oriente"." (Catalano is referring to Castagnoli, Topografia e urbanistica di Roma, 1958).

"La limitazione secondo il decumanus e il cardo non riguarda il templum in caelo né il locus designatus in aëre" (Catalano is mentioning Valeton). The limitation according to decumanus and cardo does not concern the templum in caelo nor the locus designatus in aëre (Catalano quotes Valeton). It is debated whether the templum inauguratum was limited according to decumanus and cardo [in the note, Valeton is cited affirmatively]; certainly, it was marked by a star or crux.

"Tra i templa inaugurata, alcuni erano essenzialmente destinati alle consultazioni augurali: oltre che il notissimo auguraculum dell'ara capitolina, un auguratorium sul Palatino e un auguraculum sul Quirinale. Per questi templa inaugurata più evidente appare la somiglianza strutturale e funzionale con il locus designatus in aëre, quale che sia il significato da attribuire al termine templum minus". [Catalano]. Among the templa inaugurata, some were essentially intended for àugural consultations: in addition to the very well-known auguranculum of the Capitoline altar, there were an auguratorium on the Palatine and one on the Quirinal. For these inaugurated templa, the structural and functional similarity with the locus designatus in aëre appears more evident, whatever it is the meaning to be attributed to the term "templum minus" (Catalano).

"Dalle simiglianze e differenze tra templum in caelo, locus designatus in aere, templum inauguratum possiamo ricavare: a) ciò che è inaugurato è posto in comunicazione, in una simmetria efficace con il cielo, con le regiones caeli ove gli àuguri trovano i mezzi

della loro azione; ciò che non è inaugurato resta essenzialmente terrestre [Dumézil]; b) la tecnica della limitazione secondo il decumanus e il cardo non è caratteristica né originaria degli augures". [Catalano]. From similarities and differences among templum in caelo, locus designatus in aere, and templum inauguratum, we can conclude the following. a) What is inaugurated is placed in communication, in an effective symmetry, with the heavens, with the regiones caeli where the àugurs find the means of their action; that which is not inaugurated remains essentially terrestrial [Dumézil]. b) The technique of limitation according to decumanus and cardo is neither characteristic nor original of the àugurs (Catalano).

In a note, Catalano writes to consider the works by Valeton and Weistock. It is also told that it is important to remember that according to Varro the origin of the limitation of the ager is found in Etruscan discipline, that is, in the art of harispices; from this art derives the art of land surveyors (see Frontinus). Totally hasty, therefore, is the assertion by M. Torelli, that the "procedures of urban subdivision, land surveying and auspicium procedures derive from the same juridical-sacral base and used similar methods. Note that the orientation for the limitatio, according to Etruscan discipline, was west. For a comparison with the midday orientation, used by Attus Navius in the famous augurium in the vineyard, see A. Szabó, regarding the Etruscan influence in this procedure of augurium stativum, see P. Catalano, Diritto augurale. On the permanent distinction between Roman augury art and haruspicine see P. Catalano, Aruspici. The precise question of Cicero, De div., 2, 35, 75, must be repeated here, due to the implicit reference to the templum: Quid enim scire Etrusci haruspices aut de tabernaculo rede capto aut de pomerium iure potuerunt?" [Catalano]. What could the Etruscan soothsayers know about the right way to erect the tent (tabernacle) or the laws of the pomerium? Cicero says so.

Then, let us consider Varro and the "verba". "In terris dictum templum locus augurii aut auspicii causa quibusdam conceptis verbis finitus; Varrone nota che i verba non sono gli stessi per ogni luogo, e riporta quelli relativi all'auguraculum capitolino" (Catalano). Who is consulting Iuppiter through the augural rites, in particular by means of the signa ex caelo and ex avibus, in reference to a place in terries, he designates a place in aere. Within this place, based on the legum dictio [a formula for requesting a sign], the signa take on defined meanings in response to the question (si est fas) [if the answer is positive, what is asked about is permitted]. This way of consulting the divinity through the designation of an aerial templum is common not only to the Latins, but also to the Osco-Umbrians. Equivalents of the Capitoline auguraculum have been found, thanks to archaeological research, in the Latin colony of Cosa and in the Oscan city of Bantia. The Gubbio Tablets report an Umbrian ritual of designation of an aerial templum [Catalano].

Valeton [Isaac Marinus Josué Valeton] had noticed that not only the legum dictio, but also the templum in aere are characteristic elements of Italic divination, while they seem to be missing among the Greeks and Etruscans. Catalano notes that it certainly cannot be said that these two elements do not find correspondents among other peoples; what is certain, however, is that they reveal how, in the Italic environment, the augural rules had a specific development in reference to the signa imperativa (i.e. requests to the divinity on pre-established questions and with defined methods). The religious value of the templum can only be understood by posing it in relation with the definition of valid signs (and of their effectiveness, possibly limited to the day) through the legum dictio, and with the predisposition of the observation of birds (Catalano).

According to the Roman religion, human activity, in its culminating moments, requires the divine authority: and this authority, except in special cases, is not refused. "We find here the religious and juridical root of 'Roman humanism'" [Catalano]. From the notes in Catalano article, let us report an observation: "about the similarities and differences between Roman and Etruscan augural rites: the latter certainly left more space for emotion and supernatural, which could be considered superstitio by the Romans" (Catalano).

Attus Navius

About Attus Navius we can find information in Storia di Roma: Volume 1, Ruggiero Bonghi, Jan 1884, Fratelli Treves. Let us here report from Cicero in Latin: "Multis annis post Romulum, Prisco regnante Tarquinio, quis veterum scriptorum non loquitur quae sit ab Atto Navio per lituum regionum facta discriptio? Qui cum propter paupertatem sues puer pasceret, una ex iis amissa, vovisse dicitur, si recuperasset, uvam se deo daturum, quae maxima esset in vinea; itaque, sue inventa, *ad meridiem spectans* in vinea media dicitur constitisse, cumque in quattuor partis vineam divisisset trisque partis aves abdixissent, quarta parte, quae erat reliqua, in regiones distributa, mirabili magnitudine uvam, ut scriptum videmus, invenit. Qua re celebrata, cum vicini omnes ad eum de rebus suis referrent, erat in magno nomine et gloria." . Tullius Cicero, De Divinatione, Libro I.

Inauguratio and dedicatio-consecratio

Let us continue with Catalano's article, about inauguration, dedication, and consecration.

What is an inaugurated templum? Servius: tempia in quibus auspicato et publice res administrarentur et

senatus haberi posset. Gellius: in loco per augurem constitute, quod 'templum' appellaretur. Cicero: in illo augurato templo ac loco. From these and other passages it is possible to obtain that “templum” was also an inaugurated place, that is a portion of the ground for which it had been requested the divine approval, to be used for the public activities of magistrates and priests (Catalano).

It is necessary to distinguish the inauguration of templa from the dedicatio-consecratio of aedes, aediculae, arae, pulvinaria, simulacra, ect.: however, consecration could also happen in inaugurated places, such as in aedes Vestae. Some templa (like the curia Hostilia and rostra) were not consecrated, for the impediments to public activities that would have resulted; on the other hand, some aedes sacrae were not inaugurated, to keep away the acts related to the administration of public affairs (Catalano). It should therefore be noted that the consecration of a place posed impediments to public activities.

“Competenti ad inaugurare i templa erano esclusivamente gli àugures. Peraltro, presupposto del valido esercizio del potere di inaugurazione era la richiesta fatta dal magistrato che aveva compiuto la scelta del luogo da inaugurare. Inoltre, gli augures erano tenuti a procedere all'inaugurazione richiesta dal magistrato: l'inaugurazione poteva però ovviamente avere anche esito negativo” (Catalano). Who were the persons, competent to inaugurate the templum? How effective was the inauguratio? What were the elements of the inauguratio other than consulting the divine will? And we must know what were the magisterial and priestly acts that had to be performed in the inaugurated templum. Persons competent to inaugurate: exclusively the àugurs were competent to inaugurate the templa. Furthermore, the prerequisite for a valid act of inauguration was the request made by the magistrate who had made the choice of the place to be inaugurated. Furthermore, the àugurs were required to proceed with the inauguration requested by the magistrate: however, the inauguration could obviously also have a negative outcome (Catalano). The effectiveness of the auspicious consultation, with a positive result, was not immediate: the place was to be considered inaugurated only when the activities following the àugural consultation had been carried out so that the place becomes “effatus” (Catalano).

The revealed divine rule in the positive inauguration (permissive: fas est) is a juridical reality different from the (imperative) rule according to which certain acts can only be performed in the templum (so that the acts are “justa” and accorded by auspication). The control over the conformity of acts with “ius”, regarding the inaugurated place, was exercised by the college of àugurs (Catalan). The verb 'inauguro' can also be used in a broad sense, to indicate (also) the acts subsequent the consultation and required for effectiveness, that is, the “liberare locum”, set free the place, and the delimitation of the place, that is the “effari locum” (Catalano).

For the place to be freed (in a literal and spiritual sense) and delimited, the àugur’s word was enough (effari locum).
Let's add the phrase again in Gellius, when he talks about the Senate. Gellius, Noctes Atticae, 14, 7. “Tum adscripsit de locis, in quibus senatusconsultum fieri iure posset, docuitque confirmavitque, nisi in loco per augures constituto, quod "templum" appellaretur, senatusconsultum factum esset, iustum id non fuisse. Propterea et in curia Hostilia et in Pompeia et post in Iulia, cum profana ea loca fuissent, templa esse per augures constituta, ut in iis senatusconsulta more maiorum iusta fieri possent. Inter quae id quoque scriptum reliquit non omnes aedes sacras templa esse ac ne aedem quidem Vestae templum esse. Post haec deinceps dicit senatusconsultum ante exortum aut post occasum solem factum ratum non fuisse; opus etiam censorium fecisse existimatos, per quos eo tempore senatusconsultum factum esset. Gellius is mentioning the places established by law for the Senate meetings. A decree of the Senate is illegal if it was not made in a place delimited by àugurs, that is, a "templum". This is the reason why the Curiae of Hostilius, Pompey and Caesar, although profane places, were made templa by the àugurs. Thus, the Senate consultations are held as in the custom of the ancestors. It is also noted that not all buildings dedicated to the gods are templa. For instance, the Vesta's aedes is not a templum. A Senate consultation rendered before sunrise or after sunset is not valid. The censors will check it.

Let's continue reading Catalano’s article. The norms according to which certain priestly and administrative acts had to be performed in templum to be iusta, were norms of ius augurium, The priests had to publicly worship the Gods, carry out the consecrations, and inaugurations while standing in a templum. The magistrates had to agere cum patribus, agere cum populo, auspicare ex caelo and ex avibus, swear, carry out the operations for enlistment in army, perform sortitiones (within the first milestone), dedicationes, and various other acts, while standing in templum. About reasons, Valeton observed that it was necessary to establish certain places in which to hold assemblies of Senate and meetings to prevent them from being held clandestinely or with few citizens, that is, to avoid arbitrariness on the part of magistrates; and that public utility also required magistrates to carry out the operations for enlistment in army, to demand the money for the state treasury, to act with the Gods, and to take oaths in certain places. The ultimate reason, however, must be seen, in my [Catalano] opinion, in a

broader religious and juridical framework: here too we can see how the augurium is a divine validation of something already consciously wanted by man and therefore valid. The law of augurium is expressing the human needs, which are therefore finding their support in the belief that the magistrate's action must conform to the will of Iuppiter and therefore must take place on days in which there are no adverse auspicia (die auspicato) and in a place approved by Iuppiter in advance: this is so that we can say that we have acted auspicato. The reason for the norms relating to priestly acts was the same (Catalano).

Catalano wonders if public acts could be performed in any templum; as far as the agere cum patribus, there does not appear to exist any limitation (agere cum patribus = to address the senators). As it is regarding the agere cum populo, rules connected to the pomerium established that curiate meetings were held inside the pomerium and centuriate meetings outside. Regarding the acts of worship, they had to be performed in templa determined according to pontifical law (Livy 1, 20, 5)128. (Catalano).

For what is regarding the *auspicare ex caelo and ex avibus* **(**Navius acted ex avibus), the suggested reading is "Àuguri, gli indovini dell'antica Roma", by Santiago Montero, 2021, Storica . In this article we find that the àugurs were not intermediaries between gods and humans but, as Cicero claims, "interpreters of the gods". In fact, the true intermediaries (internuntiae Iovis) that the god used to communicate with humans were the birds, not the àugurs.

Geburtstag, the Dies Natalis

Thanks to Catalano, we have seen some basic notions, which are required to properly evaluate what a templum is. Then, we can return to Heinrich Nissen, who insists on what he theorized as the Italic 'constitution', that he imagined existing prior to the Etruscan discipline. It is from this common constitution of people who arrived in the Italian peninsula that Etruscan discipline also originated.

We have already mentioned the article by Magli (2007), where a link was proposed between the day of the foundation and the Roman festivals. Magli brought examples from Rome (Palilie) and Bononia (Terminalia). But Magli's 2007 work was not the first to link the Dies Natalis to a Roman festival. The first was Heinrich Nissen, who in his book Das Templum, 1869, proposed that the colonies were founded with the decumanus oriented towards the sunrise on the day of the foundation (for Nissen, towns were templa). Nissen gives the example of Brindisi, whose Dies Natalis (birthday) is known from a letter by Cicero. This day coincided with the Nones of August, the festival of Salus at Quirinal. So, for Nissen, towns were founded with the decumanus oriented towards the sunrise on a roman festival.

For the temples, Nissen states that the day of their foundation was celebrated annually with a festival. Since Nissen assumes the long axis of the temple as oriented towards the sunrise on the day of foundation, if you do not know the deity to which the temple is dedicated, you can just use the sunrise azimuth and find the corresponding date. With the date and the corresponding festival, the related divinity is determined. The idea is not bad, but not very feasible, since the ancient calendar was lunisolar. A lunisolar calendar is a lunar calendar, synchronized with the sun. To obtain this synchronization, every two or three ordinary lunar years, there is a year to which a month is added, called the intercalary month, or "embolismic", or "mercedonio" in Rome. In lunisolar calendars, therefore, the ordinary year is made up of 12 lunations, while the embolismic one is made up of 13. The Greek and Roman calendars, before the introduction of the Julian Calendar, were lunisolar. Even today we have a lunisolar rule, associated with the Julian and Gregorian solar calendars. It is the rule used for calculating Easter. To understand the impracticality of Nissen's idea of finding the divinity associated with the temple, let's think of a church that was founded with the sunrise on an Easter day. The direction of the solar azimuth would depend heavily on when Easter falls. Easter, depending on the year, can be "low" (from March 22nd to April 2nd), "medium" (from April 3rd to 13th), and finally "high" (from April 14th to 25th). There is a huge difference between the direction of sunrise on a High Easter or Low Easter day. We then add that for the Greek and Roman world, for various time periods there is a lack of certain data on the relative lunisolar calendars: Nissen's approach fails to be applied to lunisolar dates.

Let us report the Nissen's words, regarding the Dies Natalis and the decumanus.

"Diese Erklärung, welche sich aus den Worten der Gromatiker mit Notwendigkeit ergiebt, eröffnet eine ganz neue Betrachtungsweise. Wie jeder Mensch, so hat auch der Gott und die Götterwohnung und das Templum in seinen verschiedenen Anwendungen überhaupt einen Geburtstag. Dies gilt ebenso von der Stadt: einige Geburtsjahre italischer Städte sind S. 56 zusammengestellt. So wenig wir hiervon wissen, erscheint unsere Kunde bezüglich der Geburtstage doch noch weit dürftiger. Für Rom wird er bezeichnet durch das Parilienfest am 21. April, für die Colonie Brundisium durch das Fest der Salus auf dem Quirinal am 5. August. Nach dem oben Gesagten muss also die Richtung des Decumanus entsprechen dem Sonnenaufgang am Gründungstag des Templum. Und um die Theorie auf gegebene Fälle anzuwenden, lässt sich aus dem Decumanus der Gründungstag finden,

oder falls der Tag bekannt, die Richtung des Decumanus" [Nissen, Das Templum].

In his "Orientation, studien zur geschichte der religion, del 1906, Nissen says "Die römischen Colonien feierten ihren *dies natalis.* In Brundisium am 5. August (Cicero an Atticus IV 1, 4) und dies ist das einzige überlieferte Datum. Eine Inschrift aus Beneventum (Dessau 4186 = CIL. IX 1540) führt unter den Ehrentiteln eines Bürgers auf, dass er am natalis coloniae ein Gladiatorenspiel gegeben hatte. Aus diesen beiden Beispielen darf man unbedenklich auf eine Allgemeinheit der Feier schließen". We find the example of Brindisi again, with also Benevento, but the date of the Dies Natalis of that city is unknown. And Nissen asserts that, from these two examples, we can safely conclude that the colony's Dies Natalis celebration existed in general. Like people, Roman colonies also had their own birthday.

If exact measurements were available, Nissen says, one might wonder whether religious considerations, related to the course of the sun, might have played a role in the foundation of the towns. "So z. B. scheinen nach den Plänen zwei Gründungen des Angustus, Augusta Taurinorum Turin nach der Winterwende, Augustodunum Autun nach der Sommerwende orientiert zu sein: indess der Schein mag trügen". For example, we have two cities of Augustus: Augusta Taurinorum, Turin, oriented to the winter solstice, and Augustodunum, Autun, oriented to the summer solstice. However, appearances can be deceiving. Verifications are necessary, says Nissen.

Turin, rather than being oriented towards the winter solstice, Winterwende, i.e. the "turning point" of winter, appears oriented towards the beginning or end of winter, a season which for the Romans went from November 10th, sun in Scorpio, to February 7, sun in Aquarius, as Varro tells us. The Romans placed the solstices and equinoxes in the middle of the seasons, and not at their beginning, as we do today. In “Winterwende” the German preserved the ancient manner of seeing the division of the year into seasons.

After Nissen, the solar orientation of the Roman colonies is mentioned in the book by Francis J. Haverfield (1913), for the city of Timgad whose orientation was discussed by Barthel, (1911), Römische Limitation in der Provinz Africa. Barthel follows Nissen's approach for the foundation of the colonies, and in his text, he reports the example of Brindisi which we already find in Das Templum and in Orientation, studien zur geschichte der religion.

Barthel too is an archaeoastronomer, since he analyzes the direction of the decumanus by comparing it with the solar azimuths. In Barthel the "augusteischen Turin" appears, as a model of Roman planimetry, as it was already for Nissen. The importance of Roman Turin, as an example of a town with a perfect plan, comes from the publication of Carlo Promis's book on Julia Augusta Taurinorum. In fact, there is an article by Nissen from 1870, Die Limitation von Turin. Rheinisches Museum für Philologie, JSTOR which is based precisely on Promis' text.

The role of natural horizon

In 2007 Magli considered the astronomical horizon. But the physical horizon, also defined as the natural horizon, i.e. the line that represents the profile of the landscape (Gaspani, 2000, 2001), is usually different. By astronomical horizon of a point (in which the observer's eye is located), we mean the plane passing through that point and perpendicular to the vertical of the point itself. Due to atmospheric refraction, the horizon is wider, and thus we have a visible (or optical) horizon, which is the line that, on sea, separates sky from water. The evident difference in establishing the direction according to which the sun rises (natural, astronomical or optical horizon), and consequently in determining which azimuth has to be compare with that of the decumanus, was a fact that had already been underlined by Heinrich Nissen in his Das Templum, using one of the passages from the literature of the gromatici.

The case studied by Nissen was the Via di Nola in Pompeii. Nissen deduced its orientation towards the sunrise on the summer solstice, although not exactly visible in that direction, because of the presence of a mountain. In Chapter VI of his book, Das Templum, 1869, he recalls the question, already mentioned above, relating to the fact that inexperienced gromatici confused the geographic East with the sunrise. For Nissen, this happens because some gromatici do not know the true dimensions of the world. And based on this consideration, he arrives at establishing that the Via di Nola in Pompeii was deliberately oriented according to the solstice, even if the sunrise is not visible, because it is rising beyond a mountain.

Instead of the decumanus, some could use the cardo, or even move to another decumanus or cardo. So: how many degrees of freedom does archaeoastronomy possess? Can some take decumanus or cardo as he likes? Can some take an observation point or another? A horizon or another? Can some act without specifying where the sun is observed from, considering this place as an unknown variable, to be fixed according to the desired model? One thing is certain: decumanus and cardo are not elements of the pomerium, and it is the pomerium which is separating the town from the countryside: before the creation of the pomerium, the urbs did not exist.

Let's take the case of Turin. The city and the ager have a limitation that has the same direction (Borasi and Cappa Bava, 1968). The decumanus of the ager coincides with that of the urbs and therefore the center of the ager coincided with the center of the urbs, as specified by Antonietta Dosi (2010). We have no choice. The center of the colony is that of the town. We cannot go to another site and say that this is the place where the land surveyor observed the sunrise. Moreover, we are not sure that the surveyor actually observed the sunrise. If he acted correctly, determining the geographical north and east, he rotated the colony's grid so that it had best fitted the territory.

Dies Natalis (according to Marta Conventi and other scholars)

In previous discussions, I have considered the scholar literature about the Dies Natalis of roman colonies and towns. The discussions are in Italian. I will provide in a future work the discussion in English. Let me stress now that the Latin literature is not telling what the day was, in the long sequence of events required for the creation of a new town or colony, that the Roman considered as its birthday, the Dies Natalis. However, let us stress that for a temple, it was its dedication to the divinity, which was the Dies Natalis. Among the scholars that discussed about the Dies Natalis, we can find Marta Conventi, "Città romane di fondazione". She is mentioning the Dies Natalis as the day on which the Map (forma Urbis) and the Lex of the colony had been fixed in the Forum. Then we can find A. M. Eckstein, 1979, who wrote about the Dies Natalis, proposing it as the day when the pomerium was defined. He mentioned Theodor Mommsen, and his Römisches Staatsrecht, 1882. Gianfranco Tibiletti, (1968), discussed the foundation of Pavia and its orientation, and also Giorgio Luraschi and Giuliano Romano, about Como and Ravenna. Romano seems endorsing the Nissen's approach. In 1995, Giuliano Romano published "Orientamenti Ad Sidera: Astronomia, Riti e Calendari per la Fondazione di Templi e Città". Here, let us stress once more that such an archaeoastronomical approach, based on Decumanus and Cardo, was in origin proposed by Nissen.

There is no need to involve decumanus or cardo in the creation of the pomerium, and even less to carry out the ceremony when the sunrise aligns with decumanus. This is evident from Valeton, Catalano, Castagnoli, Le Gall and so on.

By the way: how many dies natalis we know? Just a few. Eckstein remembers four towns: Saticula: 1 January, Brundisium: 5 August; Placentia: in all probability, 31 May; Bononia: 28 December. Eckstein is referring to Cicero too. "But who is there who is ignorant of what a triumphant return mine was? how the people of Brundisium held out to me on my arrival the right hand, as it were, of all Italy, and of my country herself; and when the same day, the fifth of August, was the day of my arrival, and also the birthday of my dearest daughter, whom I then beheld for the first time after our long regret for one another, and our mourning; and was also the day consecrated as the day of the foundation of that very colony of Brundisium; and also the anniversary of the dedication of the temple of Salus, as you know". Let us stress that here we find an evident distinction in Cicero between dies natalis of the colony and festival of Salus. They are not the same thing.

Let us add the date 27 November, for Colonia Iulia Augusta Numidica Simitthensium. J. Linderski, in the"Natalis Patavii", 1983: "It is well known that not only homines and dei, but also collegia, templa and urbs had their dies natalis. First of all we have the natalis of Rome on April 21, the feast of Parilia …. When in 57 BC Cicero was coming home from his exile (and Linderski remembers the Cicero's letter). n a later period, in 185 AD, an inscription from Simitthus in Africa Proconsularis records the natalis civitatis, no doubt of Simitthus. In the fourth century we hear that Constantine celebrated the natalis of Trier, but above all we should not forget the birthday of the New Rome, the genetlia of Constantinople on 11 May. And finally, an entry in the lexicon of Souda contains information about the feast of Astydromia which was celebrated para Libusin to commemorate tes poleis genetlia, presumably of Cyrene." In a note of the article by Linderski, we find interesting details, also about a decree by Curia Iovis. "The prescript reads as follows: curia Iovis, acta /V k. December / Materno et [A]ttico cos. / natale civi[t]atis … The concilius of the curiales took place on 27 November, the anniversary of the foundation of the colonia … Simitthus was established as a colony by Augustus." As you can see, there is a colony of Augustus founded on November 27th. The dates I proposed in 2012, for Turin, Augusta Taurinorm, were January 30th and November 10th. Regarding the date of November, compared with the date of January 30, some observed that no colonies were founded in November, because it was an inauspicious month, that is, a month of bad omens. History says otherwise. Today, there are persons who claim to know more than Augustus did about the colonial foundation.

About Brundisium and Bonomia we wrote in the past. About Bononia, let us remembers that «Eodem anno ante tertium Kal. Ianuarias Bononiam Latinam coloniam ex senatus consulto L. Valerius Flaccus M. Atilius Seranus L. Valerius Tappo triumviri deduxerunt. Tria milia hominum sunt deducta; equitibus septuagena iugera, ceteris colonis quinquagena sunt data. Ager captus de Gallis Bois

fuerat, Galli Tuscos expulerant.» (Livio, Ab urbe condita, XXXVII 57, 7). It is clear that the date is that of a decree ex S(enatus) C(onsulto), that is ex SC. So the day of the foundation of Bononia is that of the related Senatus Consultus. Of altars and monuments, the Romans remember their constitution ex SC and dedication ex SC (see "Cronologia dell'Ara Pacis Augustae, la costituzione (constitutio arae) al 4 Luglio del 13 a.C. e la dedica (dedicatio) al 30 Gennaio del 9 a.C.", available https://hal.science/hal-03696403/

Inauguration of colonies

Let us consider once more Catalano and his "Aspetti spaziali del sistema giuridico-religioso romano". Roma, as urbs, was inaugurated by Romolo rex àugur. Catalano writes that it could be assumed that the inaugurations of the pomerium of colonies, as well as the inaugurations of the variation of the pomerium of Rome were carried out by the augures publici populi Romani. But there is no unanimity of opinion on this. According to Valeton, the pomerium of the colonies was not inaugurated by the Roman àugurs, but by the new àugurs of the future colony, in a place not far from its borders; he bases his thesis on Appian. However, this passage is not conclusive … In any case, we must consider it as a certain fact that the haruspices could also be consulted on questions related to the foundations of the colonies, since it was an Etruscus ritus. It is probable that the inaugurations of pomeria of colonies did not take place in the arx of the Capitol. Obviously, the inauguration of the colony must be distinguished from the previous auspicia, regarding the dies of the foundation itself, which had to be consulted by the magistrates" (Catalano).

Catalano writes that Valeton believes the new àugurs of the future colony are involved in a templum inauguratum not far from the colony. Valeton excludes that it was inaugurated in the very place of the future colony, and quotes Ennius who narrates that Romulus inaugurated on the Aventine about the Palatine. Catalano observes that Valeton, while noting that Livy and Ennius do not speak of an inauguratio for the choice of the place, confuses the inauguratio regarding the command and the name of the town with that of the approval of the place. This distinction must instead be kept in mind because it is a question of defining the rule of àugury as they appeared at least in the republican age. In fact, according to the most complete reconstruction given to us by Ovid, the approval to plough the furrow (i.e. of the place of the pomerium) is requested from Iuppiter distinctly and precisely on the place itself (Catalano).

From constitutio to dedicatio

The term 'constitutio' is regarding templa and altars (Gasparri, C. 1979, Simpson, J. 1991). The constitutio was a first step to build the temple. Usually, it is told that the building of a temple follows five steps: 1) *votum*, the promise to build a temple to a god; 2) *locatio*, the choice of the place to build the temple; 3) *inauguratio*, before the construction, the place was delimitated by àugurs; 4) *consecratio*, at the end of the construction, the templum was consecrated to the divine; 5) *dedicatio*, that is the public dedication to the god. The day of the dedication is the dies natalis, celebrated by a festival every year. If there is no inauguration, we have an aedes. About the rituals, see also the Thesaurus Cultus Et Rituum Antiquorum, by J. Paul Getty museum, where we can find told that an aedes publica, with its consecration, becomes of a god's property, and therefore cannot be violated, being it sacer. The natalis dei (or natalis aedis or templi dies consecrationis: Serv. Aen. 8, 601) corresponds to the opening of the building to the cult, accompanied by a lex aedis, also defined lex dedicatio (Plin. Epist. 10, 50).

In the Thesaurus we do not find the "constitutio". This term appeared for the first time in Cicero. Let us consider the Temple of Concordia. Concordia had a temple in Arce and an aedes in the Forum. Therefore, for the Aedes in Forum, the *locatio* already existed. To rebuild it as a temple, C. J. Simpson writes that in 7 a.C., Livia, Augustus' wife, took part "in the re-building – specifically, the constitution – of the Temple of Concord in the north-west corner of the Roman Forum". "As well, further support will be found for the position, occasionally questioned, that the constitution of public sanctuaries in Rome was a two-part process involving (a) a decision by the Senate and (b) a ceremony formally inaugurating the site. It will thus become clear that the Senate decision and the consequent ritual of inauguration need not have taken place on the same day" [Simpson, J. (1991)]. The Senate decree, when a temple was constituted, was preceding the inauguration. Therefore, constitution and inauguration are different moments. They did not happen on the same day.

Simpson, 1991, also wrote that "the belief that constitution necessitated a Senate decision has been questioned by Fishwick; though not by J. E. Stambaugh, "The Functions of Roman Temples". The Ara Fortunae Reducis was constituted on the day that Augustus returned to the city in 19 B.C. … *Constitution was always considered to be a significant event in the life of a sacred structure*" [Simpson, J. (1991)].

About the "constitutio", it has been discussed by Giliberti, 2014. The term 'constitutio', occurring for the first time in Cicero's Republic in connection with political institutions, cannot be simply translated into 'constitution'. Many scholars hold indeed that Rome was a "city without a constitution". Nevertheless,

magistrates, assemblies and the Senate were expected to operate on the basis of legal rules, produced by costumes, 'constitutional conventions' and legislation. Some of these rules were paramount principles and norms which were theoretically unchangeable. They may be considered as the real 'constitutional Roman law'. But one has always to bear in mind that their interpretation was influenced by political contingency and depended on the 'examples' of the ancestors and of the major politicians of the past." [Giliberti, G. (2014)]. Besides Giliberti, see please also Giuseppe Giliberti, 2014.

Dies Natalis and Lex, from temple to town

For the temples, the Dies Natalis was celebrated coincident with the last act, that is the act of their dedication and definition of the Lex, or their opening to the public. For towns it is said that the Dies Natalis coincides with the last act, that of placing the Forma Urbis and Lex in the forum, as written by Conventi in her work about the Roman towns. But one of the very few dates that are remembered regarding the foundation of roman colonies, that of Bononia, is related to a Senate consultation.

Temples and towns are two different legal entities, even if they have a Dies Natalis in common. The town is not a templum. When we will return to examine Pierangelo Catalano's article, we will see that this fact has been established by Valeton: "Sed ipsum urbis solum, quamvis viae quae in eo ducebantur essent vel esse deberentlimites secundum rationem Decumani et Cardinis constituti, minime erat inauguratum" . Catalano and also Ferdinando Castagnoli have the same opinion. Ferdinando Castagnoli, a well-known scholar awarded by the Accademia dei Lincei, in the articles consulted so far does not take into consideration the Nissen's connection with the holidays of the day the decumanus was determined. And it cannot be otherwise: for temples, the Dies Natalis and the related celebration marks the final act, that of the dedication, not the day of inauguration. But what is fundamental is that the town is not a templum.

As it is regarding the form of the urbs, we recommend the article entitled Formae Urbis Antiquae, by Emilio Rodríguez-Almeida (2002). The author is mentioning, among the maps, the monumental marble version of the land-register of Orange (Arausium), in France. As an example of Lex of the colony, Zamora in Spain, it is mentioned a bronze fragment related to a divisio agri et finium (territorial and borders description).

Valeton and the town

As it is regarding the creation of the pomerium, Pierangelo Catalano (1978) stresses that it does not appear from the ancient sources, that this ritual required for the inauguration of the pomerium "a limitation according to decumanus and cardo (although this obviously remains a possibility) ; nor that it required a certain orientation. About the orientation, there is agreement between the written sources and the archaeological data". The pomerium legally separated the town from the countryside (note that the perimeter did not necessarily have to be rectangular).

To Nissen, castra (the military camps), towns and the centuriated land were templa. This is not true, as demonstrated by Valeton, I. M. J. (1893). De Templis Romani. In Valeton's work all the reasons are clearly expressed. Consequently, it makes no sense to think that the town should have been oriented with a ritual like that used for the templum. I. M. J. Valeton was a professor at the University of Amsterdam; hewrites his discussion in Latin.

Valeton writes, regarding the town's soil and decumani and cardini:" Sed ipsum urbis solum, quamvis viae quae in eo ducebantur essent vel esse deberent limites secundum rationem Decumani et Cardinis constituti, minime erat inauguratum; viae constituebantur non ab augure, sed a magistratu conditore urbis; viae erant profanae et poterant prout usus ferebat a publico consilio sine auspiciis mutari aut loco moveri. Solum urbis neque dicebatur neque erat templum; primum absurdum hoc erat, in templo nova templa inaugurari, cum tamen multa templa in urbe essent condita; deinde solum urbis ab auguribus liberatum servari non poterat, neque poterat habere religionem templorum, cum esset traditum communi et vulgari usui multitudinis urbanae".

In English: But the ground of the town, although the streets that we can find inside are, or should be, determined as limits established according to a layout based on Decumani and Cardini, the soil has not been inaugurated for sure. The streets were not established by the àugur, but by the magistrate, who was the founder of the town. The streets were profane, and could be modified or moved, depending on uses and needs, without the auspices of a public council. The ground of the town was neither called nor was it a templum. First, it would be absurd for new temples to be inaugurated in a templum, since many temples were going to be founded in the town. The land of the city could neither be kept free by the àugurs, nor could it be subjected to the religion of the temples, since it was devoted to common use and the urban population made common use of it.

Conventi, Eckstein and other scholars mentioned by Eckstein), do not consider the starting of the land surveying, or that of the layout of the decumanus, as the dies natalis of the town.

The inauguration according to Magdelain

The construction of the temples was subjected to a sequence of actions, including that of the inauguration. To what we have already told, let us add a passage from the work by André Magdelain, L'inauguration de l'urbs et l'imperium. In this article we find again that in the religion of ancient Rome, the inauguration was the rite by means of which the àugurs, after a verification of the divine consent, conferred the requested specific quality of being inaugurated to a person (for instance to Numa Pompilius) or to a place (to be a temple). André Magdelain observes that there is a generic use of the term inauguration, but there is also a specific use. The inauguration has its full technical value only if the delimitation of the place possesses the augural approval, as it happens for the temples. I. M. J. Valeton also underlines that there are auspicia for a place and for an action. In particular, Valeton says: *Auspicia, quatenus de urbe condenda captabantur, fuerunt auspicia de actione, non de loco, capta.* The auspicia, in so far as the town had to be founded, were auspicia taken regarding the action, not the place.

Pomerium

Pierangelo Catalano (1978) writes that, according to the definition given by Livy, pomerium was the place on which a divine approval had been requested, that is, inaugurated, so that the walls could be built there; hence the walls of the urbs were sancta. The creation of the pomerium has its aim in the purpose of building the walls (ducturi, wrote Livy) and not in the effective construction of the walls themselves. These two actions must be kept separated: the inauguration which makes the place suitable for the construction of the walls, and the construction of them: it is the first action which constitutes the pomerium. In this manner it is explained way in some cases there was the pomerium without the walls and in other cases the walls without the pomerium. The pomerium, that is the place inaugurated for the walls, had two essential features: it had to surround the urbs without interruption and it had to be unique. The two requests are coming from the fact that it was the border of the urbs, to which a series of juridical-religious norms were connected. Catalano says that: “The pomerium was an inaugurated place, but it was not a templum, nor the urbs Roma and the colonies were templa.”

And then Catalano writes again, “The inauguration of the urbs’ border differed from that of the other places (and for this reason the pomerium was not a templum): the request for the approval concerned a specific public use, and not the public and religious activities in general as for the templa; the rite (called Etruscus ritus) had its own characteristics, among which the ancient sources are mentioning the plough of the furrow by means of a bronze plough. It is necessary to underline that the ancient sources do not show that the Etruscus ritus required, for the inauguration of the pomerium, a limitation according to decumanus and cardo (although this obviously remained possible); nor that it required a certain orientation. And there is concordance between the written sources and the archaeological data.

Regarding the town and decumanus and cardo, let us repeat Valeton: “Sed ipsum urbis solum, quamvis viae quae in eo ducebantur essent vel esse deberent limites secundum rationem Decumani et Cardinis constituti, minime erat inauguratum”. To determine decumani and cardines, auspicia are requested about the action, not the place. It was not the inauguration of a temple. For more details and further passages by Valeton, see please Zenodo .

Let us add a note from Catalano's article: Against a persistent error among scholars of antiquity, despite the results already achieved by Valeton, 1892, 387 n.1; 1893, 63s.; 425; 1895, 64ff.; see 1893, 62—91 (par. 3: De ratione decumani et cardinis diversa a ratione templorum terrestrium et aliena a reliquis templis); 397—440; 1895, 15—24 (par. 4: 'De religion limitationis'). Quite relevant is the severe criticism formulated, about Lavedan and Hugueney, Histoire de l'urbanisme. Antiquité, 1966, by R. A. Staccioli, Urbanistica etrusca, Classical Archeology 20 (1968). Staccioli, however, exaggerates in stating that "we know exactly nothing about the Etruscus ritus"; see also R. Lambrechts, Les inscriptions avec le mot 'tular' et le bornage étrusque, Florence 1970.
In the Appendix, some specific passages of Catalano’s article are reported in Italian.

Treacherous analogy

> “The resemblance between surveying and augury has proven treacherous for those who assume that similar processes must have similar ends. Thus, some think centuriae must have been templa … But Valeton, “De templis romanis,” demonstrated that centuriae had nothing to do with templa. Others have maintained the contrary position: since the two processes did not lead to the same result, they must have had nothing in common; see Catalano, “Aspetti spaziali” and Hinrichs, Gromatischen Institutionen””. From “Lands, Laws, and Gods - Magistrates and Ceremony in the Regulation of Public Lands in Republican Rome”, by Daniel J. Gargola, 2016.

Augury and auspices

Here a remarkably lecture from Linderski, J. (2006). Founding the city. In his work, Linderski mentions his "The Augural Law," (1986) and Pierangelo Catalano, Contributi allo studio del diritto augurale I (1960), e Aspetti spaziali del sistema giuridico-

religioso romano. Linderski is mentioning Valeton too, and let us repeat from the Valeton's work that "Auspicia, quatenus de urbe condenda captabantur, fuerunt auspicia de actione, non de loco, capta".

"Ennius … followed strictly the established practice. The person who intended to auspicate would spend the night outdoors, and sleep in a hut (tabernaculum); he would rise early in the morning (mane), in silence, so that no untoward noise would disturb the auspices". Auspices are living beings, not to be disturbed. "He took his seat on a solida sella, apparently constructed of one piece, often of stone, so that again no creaking noise would be heard, and while looking out for birds he sat motionless, never turning his head or body." Auspices are living beings, the birds. "With his eyes, he was thus marking out his field of vision. In augural parlance, this is a templum, a term not employed here by Ennius but appearing in a similar context already in Naevius with respect to Anchises, who was in Roman tradition regarded as knowledgeable in every art of augury …" (Linderski).

Then the author moves on to illustrate the way to decipher the divine "language" based on signa, or rather how we can decipher how the Romans were deciphering the divine language. "The augurs (and pontiffs) classified the signa in various ways; … the Roman augures publici distinguished five categories of signs: from the sky (ex caelo, that is, from thunder and lightening), from the birds (ex avibus), from tripudia (ex tripudiis, that is from the eating matter of the sacred chickens, the pulli), from quadrupeds (ex quadripedibus), and finally from unusual or frightful occurrences (ex diris). The particular importance that was attached to the avian signs can be gleaned from the fact that etymologically auspicium derives from avis spicium, the sighting or observation of birds. The term then becomes synonymous with signum, and came to denote a whole variety of divinatory phenomena that had nothing to do with bird" (Linderski).

The signs have a hierarchical order. There are very important signs and unimportant signs. The signs from the sky, thunder and lightning, are the maximum (auspicia maxima). "Next, a sign could be sent by the Deity asked or unasked. This consideration produced two further divisions of signs, on the one hand the signs especially solicited or impetrated (impetrare), signa or auspicia impetrativa, and on the other the signa or auspicia oblativa, that "offered" themselves spontaneously to a viewer" (Linderski).

We have also to distinguish action and status. "Further, we have to distinguish carefully between action and status, and consequently between the signs that pertained to a concrete and well defined undertaking, contemplated or being executed, and those signs that referred to the status of persons or things. The former are the auspicia; the latter the auguria; hopelessly confused in everyday Latin and by modern students, but religiously distinguished by the augurs and by Ennius. Auguria were administered solely by the augurs, and the augurs appear to have used the auspices only in connection with the auguries. The auspicies referred to action. And any action proceeded through two distinct augural phases: the phase of contemplation and the stage of execution. The impetrative auspices pertained to the stage of contemplation, ad agendi consilium (Cic. Leg. 2.32). Before any important task was executed it was prudent to ask for divine permission. Every person could address a deity. If we reformulate this statement in the language of augurs, we can say that every person had the auspices (auspicia habere is the technical term). But these auspices were latent. To be used they had to be activated. The activation occurred at the ceremony of auspication. At this ceremony, the auspices were "taken"; the technical term was auspicia capere or captare. This was accomplished by watching for the signs, servare, and by observing, comprehending, and accepting the message (conspicere)." (Linderski).

Auspicia, quatenus de urbe condenda captabantur, fuerunt auspicia de actione, non de loco, capta (Valeton). "The auguries, on the other hand, had no temporal limitation. Through this ceremony, a special enhanced status was imparted to places and persons; in the language of augurs, they were inaugurated. An inaugurated locus becomes a templum, and the inauguration was also necessary for higher priests and kings. The adjectives used about such people and places were augustus and sanctus, "increased" and "holy." This status was doctrinally different from that of sacer, "sacred" (the latter was the province of pontiffs). Not every aedes sacra was a templum and not every templum was an aedes sacra. The holiness lasted until it was removed by a reverse ceremony of exauguratio. The auguries were enacted by the means of auspices" [Linderski].

Vrbem condere/coloniam deducere

What is the Latin term for "foundation"? Well, it does not exist. This fact has been stressed by Michel Tarpin, in "Vrbem condere/coloniam deducere : la procédure de « fondation » coloniale", 2021. "Founding a colony, during the Roman Republic, was a longer and more complex pragmatic procedure than we could believe when reading, for instance, that Ariminum was "founded" in 268. Modern languages make no real distinction between the foundation of the city as an urban space, and the institutional constitution of a political community, whereas the Latin vocabulary makes several nuances. "Founding", in a modern

meaning, doesn't exist in Latin." [Tarpin]. In fact, we have the "constitution of a political community", that is the "constitutio" of a colony (see the case of Bononia).

"The Romans made a clear distinction between urbem/oppidum condere and coloniam deducere, two verbs which are far from being synonymous. Another difficulty is the important difference between the Greek and the Roman manners of colonization, and the related lexical differences. For instance, there is no Greek word to translate deducere. We will have to question the classical concepts deriving from an old prejudice according to which colonies were replicas of Rome, "founded" according to the Varronian sulcus primigenius ritual. The sources, … show that a city destined for the establishment of a colony had to be "founded" only if it doesn't already exist as an urban center or if it has been ritually destroyed. Oppidum condere (which we could translate as "founding a town") was not the most important operation in the colonial procedure. Founding a new town may as well have been part of the consulare imperium, and we have examples of towns founded by magistrates without any popular vote or senate's advice, and without any deductio. The most important act was in fact the deductio, which came as the conclusion of a one to two years procedure, and which was considered as the date of the beginning of the colony's existence, even if not yet an independent town" [Tarpin].

Centuriation (F. Castagnoli)

On centuriation, we suggest reading "Ancient agricultural landscapes of Italy in the AGEA databases", by Michele Fasolo, 2006. We also suggest the entry "Centuriation" in the "Turin Museum". Moreover, we useful is the entry "Centuriation", by Ferdinando Castagnoli, in the Encyclopedia of Ancient Art (1959). Treccani

"The scholars of the end of the Republic combined the land surveying technique with the Etruscan doctrines of the division of heavens, establishing a parallel between the quadripartition of a territory obtained with the crossing of decumanus maximus and cardo maximus and the quadripartition of the sky determined by the crossing of the two ideal axes imagined in the E-W direction (according to the apparent motion of the sun) and N-S (the hinge of the universe). But this alleged dependence of land surveying on the Etruscan ritus is very probably unfounded, and it must be believed that the Romans were inspired almost exclusively by practical purposes, that is, with the uniform division into squares they wanted to create a clear cadastral basis. Another purpose of this grandiose land surveying work was naturally the creation of a road network and the water system of the territories. A bronze map of the divided and assigned land was drawn up and remained in the colony, while a copy was sent to Rome" [Castagnoli].

Friedrich Nietzsche lectures

Heinrich Nissen's Das Templum was used by Friedrich Nietzsche for his lectures on the Greek cult, lectures that Nietzsche held between 1875 and 1878. They were the last lectures of his career as a professor of classical philology in Basel. These lessons were collected in Der Gottesdienst der Griechen (Alterthümer des religiösen Cultus der Griechen (Winter 1875/76 und Winter 1877/78) and in 2012 they have been translated by Manfred Posani Löwenstein for Adelphi, with the Italian title "Il servizio divino dei Greci".

Here how Posani Löwenstein is rendering Nietzsche when he is talking about Decumani.

"In complesso, la religione italica si è conservata in maniera più pura, l'antropomorfismo greco è una formazione relativamente recente. Inoltre, quella è molto più forte e sistematica. Su questo punto, le ricerche sui templi, sulla loro orientazione, gettano una luce particolare. Come dato generale risulta questo: il rapporto dell'asse longitudinale con il sole levante indica, presso i Greci come presso gli Italici, il giorno della fondazione e della festa del tempio. Sul picchettamento del decumano pesa una solennità più grande: la groma viene esposta auspicaliter, vale a dire dopo aver consultato la volontà degli dèi: lo stesso fondatore è presente, la cerimonia simboleggia il giorno di fondazione del tempio [templum]. Il decumano corrisponde alla direzione in cui cadono i primi raggi del sole levante. Al pari di ciascun uomo, anche il dio e la dimora divina hanno un anniversario; così come la città. Ora, se la direzione del decumano corrisponde al sorgere del sole nel giorno della fondazione del templum, allora a partire dal decumano è possibile ricavare il giorno di fondazione, oppure, una volta conosciuto il giorno, trovare la direzione del decumano. Sul sorgere e sul calare del sole pesa una particolare solennità religiosa ..." [Posani Löwenstein].

The Italic religion has been preserved in a purer way, being the Greek anthropomorphism of relatively recent formulation. Furthermore, it is much stronger and more systematic. On this point, research on the temples, on their orientation, throws a particular light. The relationship of the longitudinal axis with the sunrise indicates, among Greeks and Italics, the day of the foundation and the feast of the temple. A greater solemnity resides in the staking of the decumanus: the groma is exhibited auspicaliter, that is to say, after having consulted the will of the gods: the founder himself is present, the ceremony symbolizes the day

of foundation of the templum. The decumanus corresponds to the direction along which the first rays of the sunrise fall. Like each man, also the gods and the divine dwelling places have an anniversary, as does the city. Now, if the direction of the decumanus corresponds to the sunrise on the day of the foundation of the templum, then starting from the decumanus it is possible to derive the day of foundation, or, once the day is known, we can find the direction of the decumanus. A particular religious solemnity resides on the rising and setting of the sun.

And Nietzsche continues with the importance of the sunrise for Babylonians and Romans. And thewe arrive to festivals. “The Italic orientation, like the Hellenic one, derives from the same representation, from which it follows that originally even the festivals and their position within the cycle of nature were the same. The days of the Parthenon fall in the same period as the festivals of the Parilia and the Ludi. … We find here a trace that indicates how Athena is a Greek-italic goddess of love and spring: … Here there are still various things to discover." (Posani Löwenstein, translated in English). Let us consider some words by Nietzsche in German:

Im Ganzen hat sich die italische Religion reiner erhalten, der griechische Anthropomorphismus ist eine verhaltnissmässig junge Bildung. Ueberdies ist jene viel strenger und systematischer. Darüber werfen besonders Licht die Forschungen über Tempel und deren Orientirung. Als etwas Gemeinsames ergiebt sich dies: das Verhältniss der Längenaxe zur aufgehenden Sonne bezeichnet den Gründungstag und Festtag des Tempels, bei Griechen wie bei Italikern. Ueber der Absteckung des decumanus ruht eine höhere Weihe: die groma wird aufgestellt auspicaliter, d. h. nach Befragung des Götterwillens, der Gründer selbst ist anwesend, die Ceremonie bezeichnet den Gründungstag des Templum. Der decumanus entspricht der Richtung, in welche die ersten Strahlen der aufgehenden Sonne fallen. Wie jeder Mensch, so hat auch der Gott und die Götterwohnung einen Geburtstag; ebenso die Stadt. Wenn nun die Richtung des decumanus dem Sonnenaufgange am Gründungstage des templum entspricht, so lässt sich aus dem decumanus der Gründungstag finden oder, falls der Tag bekannt, die Richtung des decumanus. üeber Sonnenauf und Untergang ruht eine besondere religiöse Weihe ...

Nietzsche moves beyond the Nissen’s framework. This is what we further find in Posani Löwenstein's translation. "La costituzione di un tempio ha quale diretta conseguenza l'appropriazione di uno spazio delimitato da parte di uno spirito. Non solo la città, ma anche il compitum (crocevia) e la casa, non solo il terreno coltivabile, ma anche ciascun campo e ciascun vigneto, non solo la casa considerata come un tutto, ma ogni spazio al suo interno possiede il suo dio. Ogni dio racchiuso in uno spazio ha una sua identità e un suo nome, attraverso il quale può essere invocato da un uomo. Se si riconduce la divisione spaziale al tempo, allora otteniamo gli dèi degli indigitamenta" [Posani Löwenstein].

Indigitamenta was the name given by the Romans to the sacred formulas by means of which the divinities were invoked. Nietzsche's idea of adding time to space is very interesting. Time marks the individual acts of life, whether private or public, and undertakings of all kinds. Thus we pray to the deity to be propitious. About indigitaments, details are available in a item by Giulio Giannelli in the Enciclopedia Italiana.

Nietzsche's idea of adding the time dimension to the spatial one is very beautiful and original. Considering the space, Nietzsche doesn't see in it just a templum, he sees a spirit or divinity everywhere. And in fact, he says that the establishment of a temple has "as a direct consequence the appropriation of a delimited space by a spirit". Beyond the town, Nietzsche lists the crossroads and the house, the fields, and the vineyards. The house is not only considered as a whole, but every parcel of space within it has its own god. "Every god enclosed in a space has his own identity and his own name, through which he can be invoked by a human being".

Nietzsche was inspired by Nissen for sure, but he has his own synthetic vision of the templum, which is more linked to the otherworldly world than that proposed by Nissen, a world which is no longer just a celestial space transferred to earth. Let's continue with a question: how did the Italic populations come up with the idea of a cross-shaped templum, that is a quadripartite space? The idea comes from nature. And Nietzsche repeats the Nissen’s theory of the Po river decumanus. Nissen proposed the idea in his Das Templum.

The Po Valley is a land with the Alps to the north, bounded by the Appennines to the south, a land which opens onto the sea to the east, but it is a sea without gates, because of its marshy coasts. The Alps descend sharply towards the plain. The mountain range presents itself everywhere as something limiting, separating populations. It is this great barrier which isolates Italy: beyond another climate, other land products, other languages and history. The Apennine range has a much lower elevation, the passage is milder; but they are also clearly marking the border. The whole country appeared as a single large Templum, created by the Po as Decumanus maximus, limited by its Alpine and Apennine tributaries as

cardines. It is here, that the elements of geometry the migrants brought with them from the East, like other germs of culture, took root. What a great system of thought, which shrink all the problems of life into the same simple laws, was here worked out in detail. Centuries have led the descendants to the narrow valleys of Apennines, to the lush coasts of Campania, ...".

The town is not a templum (Castagnoli)

Valeton told it, Catalano explained it clearly, now let's see what Ferdinando Castagnoli writes in Il Tempio Romano: Questioni di Terminologia e di Tipologia. 1984. The given reference is a text that proposes a clarification of the terms templum, aedes, auguranculum.

At the beginning we [Castagnoli] recalled the technical meaning of Templum: "locus augurii aut auspici causa quibusdam conceptis verbis definitus" (Varro). The templum is the delimited place where the observation of skies is practiced. It is therefore necessary to reject the theory that considers the entire town as a templum and even to admit that the inauguratio urbis has a direct and material consequence on the urban layout, as has been proposed for the town of the Four-Regions, and above all for the Roma Quadrata. As it was explained very clarity by A. Magdelain, Romulus' augurium is the means by which Rome was changed into a locus augustus, in the sense ad avibus significatus. Then, the concept of templum must be narrowed in the sense that has been clearly indicated in the Varro's words. Templum is therefore (besides the temple) every delimited place on which the divine approval has been requested for carrying out the activities of magistrates and priests (Curia, Rostri, Comitium, Saepta), and, in particular, the auguranculum of the arx, and also that of the Latiaris hill (a part of the Quirinale) (Castagnoli).

The auguranculum must have been a square or rectangle of limited dimensions oriented astronomically. Thus are the augurancula found in Cosa and Bantia, thanks respectively to F. E. Brown and M. Torelli, both augurancula on the towns's acropolis. A famous passage by Livy refers to the auguranculum of the arx of Rome: the àugur is facing East, and, prospectu in urbem agrumque capto (the observation extends beyond the city to its territory), establishes the regions, of course those of the sky, following exactly the four cardinal points. Therefore, for town is out of the question. I do not admit [says Castagnoli] any possibility for the L. Richardson's recent proposal that the via Sacra was an axis dividing the templum observed by the àugur from the arx: it is for this reason that the via, according to Richardson, had been named sacred. We can note that the Via Sacra, with respect to the arx, is in South-East direction, and furthermore that it is not an axis because its path is not straight. Moreover, above all, these axes, and regions, as it has been said, must be understood in the sky, not on the earth. The location of the auguranculum of the arx is not known. Perhaps, it is likely that it was on the top, where the Aracoeli church is today. The temple of Juno Moneta was thought to be located here, but recently G. Giannelli... , and Castagnoli continues with his discussion. Castagnoli refers to the work by A. Magdelain, L'inauguration de l'urbs et l'imperium, 1969.

In the Castagnoli's book, Orthogonal town planning in antiquity, Cambridge, Mass., MIT Press, we find stressed the same, that the town is not a templum. We find mentioned Valeton and Thulin, but also Werner Müller, and his Kreis und Kreuz, and Karl Otfried Müller, known in Italy with the name Carlo Ottofredo. In his text on the Etruscans, entitled Die Etrusker, Karl Otfried Müller recalls the importance that the auspicia and the vault of heaven had for Etruscan people. Auspicia were drawn, at night, before the sunrise. The Templum was created before dawn. As regarding Cardo and Decumanus: Müller says that at a certain moment of Roman history the "unwissende", ignorant land surveyors arrived, who instead of taking the equinoctial line as a reference line, orient themselves with the sun.

In his Orthogonal town planning in antiquity, Castagnoli stresses that the system of urban and agricultural limitation has nothing in common with the Templum, as evidenced by the east-west orientation in the centuriation, rather than the north-south orientation of the templum. Castagnoli adds that W. Müller, however, maintains that there was a relationship between the Templum of auspicia and the uses of the limitation, and considers the limitation as a transposition of an ancient concept of celestial and solar calendar. But it is the city - underlines Castagnoli - that it is particularly interesting to us. "The theories of K. O. Müller and Nissen of a city being a temple have just been denied by Valeton and by Thulin" (Castagnoli).

Effatio and Liberatio

Before establishing a templum, some procedures were necessary. Varro, De lingua Latina: "Fatur is qui primum homo significabilem ore mittit vocem. ... Hinc fana nominata quod pontifices in sacrando fati sint finem; hinc profanum, quod est ante fanum coniunctum fano; hinc profanatum quid in sacrificio atque Herculi decuma appellata ab eo est quod sacrificio quodam fanatur, id est ut fani lege fit". In the passage, Varro says that, from the same root of "fatus", it comes the definition of the proper (fas) days, during which the praetors can pronounce certain legal formulas without being guilty, and also of the

(nefas) days, in which it is forbidden to utter formulas and, if they pronounce them, they must make amends. Hence the term "effata" (declaration) given to the words by means of which the àugurs declared the limits of the fields in extra-urban areas for the observation of the auspices; hence we have the expression effari templa, determination of the areas of observation of the celestial signs, when the àugurs declare the boundaries. Hence the term fona (temples), because the pontiffs in consecrating them indicated their limits; hence the profanum is said to be that which is in front of the temple, connected with it.

We have already seen what was the "inaugurato". Let us here consider a discussion provided by Chiara Zanforlini (2016). She describes the praecatio (or vota or supplicatio), the effatio or liberatio of the place, and then the inauguratio. Three moments existed regarding the inauguratio. The central moments were the conregio, conspicio, and cortumio. During the conregio, the àugur, velato capite, draws the templum with his lituus. Then the àugur observes the space in front of him, looking at a reference point (conspicio). Then he pronounces the legum dictionem, proclaiming the subject about which he was asking the divinity. He is looking for good or bad signs [Chiara Zanforlini (2016)]. Zanforlini notes that Varro consider the term “templum” coming from tueri (to look at, to observe). Zanforlini explains that the augural templum is defined by Varro as a quadrangular space, with or without borders, with a single entrance and set free [liberatio] from impurity and negativity.

The control of space and time

Let us read from the Religions of the Ancient World. A Guide, di Sarah Iles Johnston, 2004, Harvard University Press. “Just as it exercised mastery over time, the city defined and controlled the spatial environment that it shared, as it were, with the deities” (Johnston). The space of the urbs was liberatus ef effatus. During the rite, made by àugurs, the urban space was “released from all divine charge upon the land. Such was the case for the ancient territory of Rome (ager Romanus antiquuus), the city (urbs), and the templum.” (Johnston). Once the space was set free, it was inaugurated. The urbs had the pomerium. “This limit was established by the official foundation ritual. It thus applied only to Rome, to the ancient cities of Latium, and to the roman colonies, and it is incorrect to use it for every Roman city during the imperial era … *The urbs was neither a templum nor a sacred space: the function of the pomerium was to mark out and protect the privileged status of the city’s ground for taking the auspices and other augural activity*; the rest of the city’s territory, outside the pomerium, did not enjoy this privilege. To take the auspices, a templum first had to be traced within this privileged space, to install a deity there, part of the space had to be consecrated. To preserve the integrity of the space within the pomerium, it was forbidden to site tombs within it; the army – that is, armed soldiers – did not enter the space (except on days of triumph). The pomerial line constituted the limit between the imperium domi (civil power within the city) and the imperium militiae (unlimited power for the command of the army and the conduct of war outside Rome)” [Johnston, 2004].

“Consecration was a complex operation, possible only on a Roman territory that had been “liberated and defined” and in some cases inaugurated. After the official decision to go ahead with a consecration (called the constitutio), the space in question was purified, the borders of the site were marked, and the first stone laid. Once the building was completed, it was dedicated or consecrated. The officiant grasped the doorpost (or touched the altar) and pronounced the formula of dedication (lex dedicationis) under the dictation of a pontifex: this caused the building and space to pass from the public domain into that of the deity, and from then on, the site was sacred. The lex dedicationis also articulated a certain number of stipulations concerning the forms of worship” (Johnston, 2004).

Sanctus, that is inauguratus

Elena Tassi Scandone, in Chapter 6, Sacer and sanctus: what relationships?, talks about the sacrum and the holiness. “Originally sanctus is everything that has obtained the divine augurium”. In this regard, the author highlights a passage taken from the first book of Ovid's Fasti. The Augustan poet writes: Sancta uocant augusta patres, augusta uocantur templa sacerdotum rite dicata manu / huius et augurium dependet origine uerbi / et quodcumque sua Iuppiter auget ope. The fathers called “sancta” the things which are “augusta”, and the temples inaugurated by priests, according to the rite, are called augusti (that is, those who have received the augurium). Even the augurium originally derives from this word, and also everything that Iuppiter increases by his power (Tassi Scandone).

Tassi Scandone reiterates that "the templum, in the technical sense, is an inaugurated place, that is, a part of territory for which the divine approval has been requested, but it is not consecrated to God. The inauguration, which ends with the definition of the boundaries and the construction of an enclosure by the àugurs, makes “sanctum” the templum. For what is regarding the walls, with related templum minus, due to the influence of the Etruscus ritus, the perimeter has been marked by means of the plough.

The VRBS therefore enjoys a dual protection: Iuppiter's augurium and the walls, built in the place indicated by the god (Tassi Scandone).

Tassi Scandone is talking about the walls and the space needed to inaugurate the walls (hence templum minus). Let us therefore remember the distinction between pomerium and walls. “L'inaugurazione del confine dell'urbs differiva da quella degli altri luoghi (e per questo il pomerium non era un templum): la richiesta di approvazione riguardava un particolare uso pubblico (v. par. 1) e non le attività pubbliche e religiose in generale come per i templa” (Catalano). According to Catalano “The inauguration of the urbs border differed from that of other places (and for this reason the pomerium was not a templum): the request for approval concerned a particular public use, and not public and religious activities in general as for the templa". According to Tassi Scandone, “The furrow is drawn religionis causa, so that the new town is defended by a ditch and a murus. Varro explains that the place from which the earth is extracted is called a sulcus, while the earth thrown inside is called a murus. The circle (orbis) behind the ditch (post ea) constitutes the Principium Urbis. It is called pomerium, because it is placed behind the murus and marks the end of the urban auspices [Note 20]” [Tassi Scandone].

Is the city a templum? No. Let us report here what is said in a note byTassi Scandone's article. Quite interesting is the Gellius's text, which comes from a particularly reliable source, namely the Libri de auspiciis written by the College of Augurs (Gell., 13, 14, 1-3): pomerium est locus intra agrum effatum per totius urbis circuitum pone muros regionibus certeis determinatus, qui facit finem urbani aupicii. The problem of the pomerium is one of the most debated issues, due to the objective difficulty of finding a solution. The sources collected by Lugli 1952, p. 115-131 highlight how the ancients already had very different opinions. Mommsen, 1876, highlights the problems connected to the identification of the pomerium, as a material structure, as a locus and as a legal concept (see Liou-Gille 1993, Magdelain 1977, Magdelain, 2015). A review of the different positions of the doctrine can be found in Andreussi 1999. Recently, De Magistris, 2007, appears very critical of the reconstruction of Magdelain 1977, who hypothesizes that the whole city was a templum. This thesis is clearly denied by the sources which recall the existence, within the urbs, of many templa. Furthermore, - Tassi Scandone is stressing - as highlighted by Catalano 1960, p. 306 «if the whole city had been a templum, there would have been the absurdity of inaugurating places within an inaugurated place». See Catalano 1978, p. 476, and for distinction between auspicia urbana and auspicia militaria, see in particular Catalano 1960, p. 303 ff. And this is what told by Tassi Scandone in her note. Catalano, P. (1960), concerns the “Contributi allo studio del diritto augurale”.

Le Gall and the foundation rituals

Le Gall observed in his Les romains et l'orientation solaire, 1975, that towns, military camps and centuriations are not templa. The discussion, in English, is proposed in SSRN. In a previous article, 1972, Le Gall had discussed of the foundation rituals. The article is entitled Les rites de fondation des villes romaines. Le Gall notes that it is generally told the foundation of a roman town composed by the following acts. 1) It is observed the direction of the sunrise on the day of foundation, so to determine the decumanus. 2) The cardo is determined perpendicular to the decumanus, and then the other decumani and cardini were determined. 3) The urban area was delimited by the sulcus primigenius, to have the pomerium, that is a religious border of the urbs. Since the cardo represents the axis of the world, "une telle ville, image du mondem étaut un templum, et ces opérations tiraien leur origine de la tradition étrusque". Actually, this is the Nissen’s theory. Then, Le Gall criticises this modern remake of the ritual.

"Cette théorie, devenue traditionnelle, passe pour être attestée par des textes antiques et par la comparaison avec les camps militaires, templa eux aussi ; elle paraît surtout justifiée par les plans de villes neuves que nous connaissons, tels celui de Timgad en Afrique et celui de Venta Silurum (Caerwent) en Bretagne pour la pleine époque impériale, celui d'Augusta Praetoria (Aoste) pour l'époque augustéenne et celui du Castrum d'Ostie pour le iv siècle avant notre ère; justification aussi, le succès avec lequel on arrive à déterminer l'orientation le jour du anniversaire des fondations en comparant l'orientation du decumanus maximus et celle du lever du soleil aux divers jours de l'année » (Le Gall) . This theory, which has become traditional, is said to be attested by ancient texts and by comparison with military camps, also templa; it seems especially justified by the plans of some towns that we know, such as that of Timgad in Africa and Venta Silurum (Caerwent) in Brittannia, founded during the imperial period, that of Augusta Praetoria (Aosta) for the Augustan period, and that of the Castrum of Ostia for the 4th century BC. Le Gall is also remembering the Dies Natalis, that is the anniversary of the foundation, that according to Nisses could be determined by comparing the orientation of decumanus maximus with the sunrise azimuth. However, Le Gall adds that when you look at these cases more closely, difficulties arise. Venta

Silurum has a decumanus but it does not have a cardo. In Calleva Atrebatum (Silchester) there is the cardo, but not a gate-to-gate decumanus. The town plan is polygonal. Cosa has an orthogonal plan but it is planned according the local terrain. Let us add that Aosta has been claimed having the cardo oriented ritually, but this is possible also for the decumanus.

"Loin de prouver l'exactitude de la théorie, ces efforts n'en ont été que des applications et la fragilité des résultats auxquels ils ont abouti conduit à la mettre en doute". The efforts that are made to provide examples, such as those given above, do not demonstrate the accuracy of the theory, they are only applications of it, the fragility of which gives rise to doubts in its regard.

After several interesting comments, Le Gall is mentioning Festus and Varro. Le Gall notes that there is only one rite for the urbs foundation, that of the sulcus primigenius. This rite is described in detail by Servius who indicates that Cato the Elder already spoke of it. For him as for Varro, the rite of the sulcus primigenius is the only rite required by urban foundations; it goes without saying that auspices had to be taken before celebrating the rite, since it was an important act and certainly linked to religion, but this in no way implies that the urban territory became a templum. To rule out this interpretation, it is enough to note that auspicia necessarily took place before its delimitation, since they were the auspicia which authorized the delimitation (Le Gall).

The only relevant rite is that regarding the pomerium. Is this rite really Etruscan? "Cicéron déclare formellement que les haruspices étrusques n'étaient pas qualifiés pour se prononcer sur les questions relatives au pomerium". Cicerone, De Divinatione, II, 25, 75. So we can conclude repeating: Quid enim scire Etrusci haruspices aut de tabernaculo rede capto aut de pomerii iure potuerunt?

Appendix

Here we report some passages in Italian, from the Catalano's article, for the convenience of the reader.

"Differenza tra templum inauguratum e pomerium. - Luogo inaugurato era altresì il pomerium. Ma esso non era un templum, né erano templa l'urbs Roma e le coloniae. Bastino poche considerazioni: la richiesta di approvazione del templum riguardava le attività pubbliche e religiose in generale (quella del pomerium riguardava in particolare la costruzione delle mura e il confine degli auspicia urbana); il templum era costituito secondo il decumanus e il cardo (mentre solo talvolta, se il luogo era opportuno, le urbes erano costituite con limiti rettangolari); se tutta l'urbs fosse stata un templum, si sarebbe avuto l'assurdo di inaugurazioni di luoghi all'interno di un luogo già inaugurato; infine, non sarebbe certo stato possibile applicare le norme per il rispetto dei luoghi inaugurati (v. infra, par. 6) a tutta l'urbs" (Catalano, 1978).

"Luoghi limitati secondo decumanus e cardo erroneamente ritenuti templa - È erronea poi l'opinione che tutti i luoghi limitati secondo il decumanus e il cardo fossero templa. Il Valeton ha chiarito che non erano templa gli agri divisi dai magistrati per assegnarli ai privati, né le vineae (spesso costituite secondo decumanus e cardo: Plinio, Nat. hist. 17,169), né i castra (anzi, era detta impropriamente templum una parte dell'accampamento: Livio 41, 18, 8)" (Catalano, 1978).

"Per ritenere che la limitazione secondo decumanus e cardo fosse, secondo le fonti, parte essenziale del rito etrusco di fondazione delle urbes, si può trovare appiglio solo nei passi relativi alla cosiddetta Roma quadrata, fondata da Romolo sul Palatino … , ed inoltre in Tacito, Ann. 12, 24, ove è ricostruito il tracciato del primitivo pomerio; in particolare, si è visto un riferimento al decumanus e al cardo nella spiegazione di Varrone, in Solino 1, 17: … dictaque primum est Roma quadrata, quod ad aequilibrium foret posita: vedi, ad es., E. Täubler, Roma quadrata und mundus, Mitteilungen des deutschen archaeologischen Instituts, 1926; e (nonostante le diverse conclusioni storiche) F. Castagnoli, Roma quadrata, Ippodamo di Mileto e l'urbanistica a pianta ortogonale. … D'altra parte, i dati archeologici fanno escludere che la città dell' VII secolo raggiungesse la linea del pomerio descritto da Tacito: vedi P. Mingazzini, L'origine del nome di Roma ed alcune questioni topografiche attinenti ad essa: la Roma quadrata ecc., … ; e Tacito stesso mostra trattarsi di "una semplice induzione" (noscere hand absurdum reor): cosi F. Castagnoli, Roma quadrata. Comunque, anche ammesso che la concezione della città primitiva come quadrata (con riferimento al decumanus e al cardo) fosse tradizionale, non se ne potrebbe ricavare che secondo le fonti la limitazione in base a decumanus e cardo fosse parte necessaria del rito etrusco di fondazione: vedi, a proposito di Varrone in Solino, 1, 17, Valeton, 1893, 64; cfr. 1892, 387 n. 1; C. O. Thulin, Die etruskische Disciplin 3 (cit. η. 6) 30ss. Altro è, ovviamente, che la limitatio secondo decumanus e cardo fosse dai Romani considerata di origine etrusca; sul problema vedi C. O. Thulin, F. Castagnoli, R. Lambrechts, F. T. Hinrichs, O. A. W. Dilke. Un cenno va fatto alle tesi dello Szabó: senza negare valore a quanto esposto da questo studioso circa il significato di quadratus, rilevo che, tenendo conto dell'insieme dello ius divinum, non è possibile vedere in Cicerone, De div. 1, 30, un riferimento alla concezione religiosa (ipotizzata dallo Szabó anche in base a Plutarco e Varrone) dell'urbs come superficie

circolare divisa in quattro parti eguali da decumanus e cardo : basti pensare che l'aedes Vestae, rotonda, non era templum inauguratum" (Catalano, 1978).

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