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MICHEL FOUCAULT



Security, Territory, Population

LECTURES AT THE COLLÈGE DE FRANCE,

1977-1978



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General perspective of the lectures: the study of bio-power. ~ Five proposals on the analysis of mechanisms of power. ~ Legal system, disciplinary mechanisms, and security apparatuses (dispositifs). Two examples: (a) the punishment of theft; (b) the treatment of leprosy, plague, and smallpox. ~ General features of security apparatuses (1): the spaces of security. ~ The example of the town. ~ Three examples of planning urban space in the sixteenth and seventeenth centuries: (a) Alexandre Le Maitre's La Métropolitée (1682); (b) Richelieu; (c) Nantes.

THIS YEAR I WOULD like to begin studying something that I have called, somewhat vaguely, bio-power.¹ By this I mean a number of phenomena that seem to me to be quite significant, namely, the set of mechanisms through which the basic biological features of the human species became the object of a political strategy, of a general strategy of power, or, in other words, how, starting from the eighteenth century, modern Western societies took on board the fundamental biological fact that human beings are a species. This is roughly what I have called bio-power. So, to begin with, I'd like to put forward a few proposals that should be understood as indications of choice or statements of intent, not as principles, rules, or theorems.

First, the analysis of these mechanisms of power that we began some years ago, and are continuing with now, is not in any way a general theory of what power is. It is not a part or even the start of such a theory.

This analysis simply involves investigating where and how, between whom, between what points, according to what processes, and with what effects, power is applied. If we accept that power is not a substance, fluid, or something that derives from a particular source, then this analysis could and would only be at most a beginning of a theory, not of a theory of what power is, but simply of power in terms of the set of mechanisms and procedures that have the role or function and theme, even when they are unsuccessful, of securing power. It is a set of procedures, and it is as such, and only as such, that the analysis of mechanisms of power could be understood as the beginnings of something like a theory of power.

Second indication of choice: the relations, the set of relations, or rather, the set of procedures whose role is to establish, maintain, and transform mechanisms of power, are not "self-generating"* or "self-subsistent"†; they are not founded on themselves. Power is not founded on itself or generated by itself. Or we could say, more simply, that there are not first of all relations of production and then, in addition, alongside or on top of these relations, mechanisms of power that modify or disturb them, or make them more consistent, coherent, or stable. There are not family type relationships and then, over and above them, mechanisms of power; there are not sexual relationships with, in addition, mechanisms of power alongside or above them. Mechanisms of power are an intrinsic part of all these relations and, in a circular way, are both their effect and cause. What's more, in the different mechanisms of power intrinsic to relations of production, family relations, and sexual relations, it is possible, of course, to find lateral co-ordinations, hierarchical subordinations, isomorphic correspondences, technical identities or analogies, and chain effects. This allows us to undertake a logical, coherent, and valid investigation of the set of these mechanisms of power and to identify what is specific about them at a given moment, for a given period, in a given field.

Third, the analysis of these power relations may, of course, open out onto or initiate something like the overall analysis of a society. The analysis of mechanisms of power may also join up with the history of economic transformations, for example. But what I am doing—I don't

say what I am cut out to do, because I know nothing about that—is not history, sociology, or economics. However, in one way or another, and for simple factual reasons, what I am doing is something that concerns philosophy, that is to say, the politics of truth, for I do not see many other definitions of the word "philosophy" apart from this. So, insofar as what is involved in this analysis of mechanisms of power is the politics of truth, and not sociology, history, or economics, I see its role as that of showing the knowledge effects produced by the struggles, confrontations, and battles that take place within our society, and by the tactics of power that are the elements of this struggle.

Fourth indication: I do not think there is any theoretical or analytical discourse which is not permeated or underpinned in one way or another by something like an imperative discourse. However, in the theoretical domain, the imperative discourse that consists in saying "love this, hate that, this is good, that is bad, be for this, beware of that," seems to me, at present at any rate, to be no more than an aesthetic discourse that can only be based on choices of an aesthetic order. And the imperative discourse that consists in saying "strike against this and do so in this way," seems to me to be very flimsy when delivered from a teaching institution or even just on a piece of paper. In any case, it seems to me that the dimension of what is to be done can only appear within a field of real forces, that is to say within a field of forces that cannot be created by a speaking subject alone and on the basis of his words, because it is a field of forces that cannot in any way be controlled or asserted within this kind of imperative discourse. So, since there has to be an imperative, I would like the one underpinning the theoretical analysis we are attempting to be quite simply a conditional imperative of the kind: If you want to struggle, here are some key points, here are some lines of force, here are some constrictions and blockages. In other words, I would like these imperatives to be no more than tactical pointers. Of course, it's up to me, and those who are working in the same direction, to know on what fields of real forces we need to get our bearings in order to make a tactically effective analysis. But this is, after all, the circle of struggle and truth, that is to say, precisely, of philosophical practice.

Finally, a fifth and final point: I think this serious and fundamental relation between struggle and truth, the dimension in which philosophy

* autogénétiques: in inverted commas in the manuscript.

† autosubsistantes: in inverted commas in the manuscript.

has developed for centuries and centuries, only dramatizes itself, becomes emaciated, and loses its meaning and effectiveness in polemics within theoretical discourse. So in all of this I will therefore propose only one imperative, but it will be categorical and unconditional: Never engage in polemics.²

Now I would like to begin the lectures. Their title is "security, territory, population."³

The first question is obviously: What are we to understand by "security"? I would like to devote today and maybe next week to this question, depending on how quickly or slowly I go. I will take an example, or rather a series of examples, or rather one example modulated in three stages. It is a very simple, very childish example, but we will start from there and I think it will enable me to say certain things. Take a completely simple penal law in the form of a prohibition like, say, "you must not kill, you must not steal," along with its punishment, hanging, or banishment, or a fine. In the second modulation it is still the same penal law, "you must not steal," and it is still accompanied by certain punishments if one breaks this law, but now everything is framed by, on the one hand, a series of supervisions, checks, inspections, and varied controls that, even before the thief has stolen, make it possible to identify whether or not he is going to steal, and so on. And then, on the other hand, at the other end, punishment will not just be the spectacular, definitive moment of the hanging, fine, or banishment, but a practice like incarceration with a series of exercises and a work of transformation on the guilty person in the form of what we call penitentiary techniques: obligatory work, moralization, correction, and so forth. The third modulation is based on the same matrix, with the same penal law, the same punishments, and the same type of framework of surveillance on one side and correction on the other, but now, the application of this penal law, the development of preventive measures, and the organization of corrective punishment will be governed by the following kind of questions. For example: What is the average rate of criminality for this [type]*? How can we can predict statistically the number of thefts at a given moment, in a given society, in a given town, in the town or in the

* M.F.: kind (*genre*)

country, in a given social stratum, and so on? Second, are there times, regions, and penal systems that will increase or reduce this average rate? Will crises, famines, or wars, severe or mild punishment, modify something in these proportions? There are other questions: Be it theft or a particular type of theft, how much does this criminality cost society, what damage does it cause, or loss of earnings, and so on? Further questions: What is the cost of repressing these thefts? Does severe and strict repression cost more than one that is more permissive; does exemplary and discontinuous repression cost more than continuous repression? What, therefore, is the comparative cost of the theft and of its repression, and what is more worthwhile: to tolerate a bit more theft or to tolerate a bit more repression? There are further questions: When one has caught the culprit, is it worth punishing him? What will it cost to punish him? What should be done in order to punish him and, by punishing him, reeducate him? Can he really be reeducated? Independently of the act he has committed, is he a permanent danger such that he will do it again whether or not he has been reeducated? The general question basically will be how to keep a type of criminality, theft for instance, within socially and economically acceptable limits and around an average that will be considered as optimal for a given social functioning. These three modalities seem to me to be typical of different things that we have studied, [and of] those that I would now like to study.

You are familiar with the first form, which consists in laying down a law and fixing a punishment for the person who breaks it, which is the system of the legal code with a binary division between the permitted and the prohibited, and a coupling, comprising the code, between a type of prohibited action and a type of punishment. This, then, is the legal or juridical mechanism. I will not return to the second mechanism, the law framed by mechanisms of surveillance and correction, which is, of course, the disciplinary mechanism.⁴ The disciplinary mechanism is characterized by the fact that a third personage, the culprit, appears within the binary system of the code, and at the same time, outside the code, and outside the legislative act that establishes the law and the judicial act that punishes the culprit, a series of adjacent, detective, medical, and psychological techniques appear which fall within the domain of surveillance, diagnosis, and the possible transformation of individuals. We have looked

at all this. The third form is not typical of the legal code or the disciplinary mechanism, but of the apparatus (*dispositif*) of security,⁵ that is to say, of the set of those phenomena that I now want to study. Putting it in a still absolutely general way, the apparatus of security inserts the phenomenon in question, namely theft, within a series of probable events. Second, the reactions of power to this phenomenon are inserted in a calculation of cost. Finally, third, instead of a binary division between the permitted and the prohibited, one establishes an average considered as optimal on the one hand, and, on the other, a bandwidth of the acceptable that must not be exceeded. In this way a completely different distribution of things and mechanisms takes shape.

I have taken this simple example in order to stress straightaway two or three things that I would like to be quite clear, for all of you, and first of all, of course, for myself. I have apparently given you the bare bones, if you like, of a kind of historical schema. The legal system is the archaic form of the penal order, the system we are familiar with from the Middle Ages until the seventeenth or eighteenth century. The second we could call the modern system, which was established from the eighteenth century, and then the third is the, let's say, contemporary system, the problematic of which began to appear fairly early on, but which is currently being organized around new penal forms and the calculation of the cost of penalties; these are the American,⁶ but also European techniques that we are now seeing. Actually, to describe things in this way, as the archaic, ancient, modern, and contemporary, misses the most important thing. The main thing is missing, in the first place, because, of course, the ancient modalities I spoke about involve those that appear as newer. It is absolutely clear that in the juridico-legal system, which functioned, or at any rate was dominant, until the eighteenth century, the disciplinary side was far from being absent since, after all, when a so-called exemplary punishment was imposed on an action, even and above all when the action was apparently of little importance or consequence, it was in fact precisely with the aim of having a corrective effect, if not on the culprit himself—because he was hardly corrected if he was hung—[then at least on the]* rest of the

* Foucault says: on the other hand, the correction, the corrective effect was clearly addressed to the

population. To that extent, the practice of public torture and execution as an example was a corrective and disciplinary technique. Just as, in the same system, when one severely punished domestic theft—with the death penalty for a theft of very, very minor importance if it was committed in a house by someone who was received there or who was employed as a servant—it was clear that what was targeted was basically a crime that was only important due to its probability, and we can say that here too something like a mechanism of security was deployed. We could [say]* the same with regard to the disciplinary system, which includes a whole series of dimensions that absolutely belong to the domain of security. Basically, when one undertakes to correct a prisoner, someone who has been sentenced, one tries to correct the person according to the risk of relapse, of recidivism, that is to say according to what will very soon be called dangerousness—that is to say, again, a mechanism of security. So, disciplinary mechanisms do not appear just from the eighteenth century; they are already present within the juridico-legal code. Mechanisms of security are also very old as mechanisms. Conversely, I could also say that if we take the mechanisms of security that some people are currently trying to develop, it is quite clear that this does not constitute any bracketing off or cancellation of juridico-legal structures or disciplinary mechanisms. On the contrary, still in the penal domain, look at what is currently taking place in the domain of security for example. There is an increasingly huge set of legislative measures, decrees, regulations, and circulars that permit the deployment of these mechanisms of security. In comparison, in the tradition of the Middle Ages and the Classical age, the legal code concerning theft was very simple. If you consider the body of legislation concerning not only theft, but theft by children, the penal status of children, mental responsibility, and the whole body of legislation regarding what are called, precisely, security measures, the supervision of individuals after they leave a penal institution, you can see that getting these systems of security to work involves a real inflation of the juridico-legal code. In the same way, with the establishment of these mechanisms of security there is a considerable activation and propagation of the disciplinary corpus.

* M.F.: take (*prendre*)

For in order actually to guarantee this security one has to appeal, to take just one example, to a whole series of techniques for the surveillance of individuals, the diagnosis of what they are, the classification of their mental structure, of their specific pathology, and so on; in short one has to appeal to a whole disciplinary series that proliferates under mechanisms of security and is necessary to make them work.

So, there is not a series of successive elements, the appearance of the new causing the earlier ones to disappear. There is not the legal age, the disciplinary age, and then the age of security. Mechanisms of security do not replace disciplinary mechanisms, which would have replaced juridico-legal mechanisms. In reality you have a series of complex edifices in which, of course, the techniques themselves change and are perfected, or anyway become more complicated, but in which what above all changes is the dominant characteristic, or more exactly, the system of correlation between juridico-legal mechanisms, disciplinary mechanisms, and mechanisms of security. In other words, there is a history of the actual techniques themselves. For example, you could perfectly well study the history of the disciplinary technique of putting someone in a cell, which goes back a long way. It was already frequently employed in the juridico-legal age; you find it used for debtors and above all you find it in the religious domain. So, you could study the history of this cell technique (that is to say, [of] its shifts, [of] its utilization), and you would see at what point the cell technique, cellular discipline, is employed in the common penal system, what conflicts it gives rise to, and how it recedes. You could also analyze the security technique of criminal statistics. Crime statistics do not date from the present, but neither are they very old. In France, crime statistics were made possible by the famous Accounts of the Minister of Justice from 1826.⁷ So, you could study the history of these techniques. But there is another history, which would be the history of technologies, that is to say the much more general, but of course much more fuzzy history of the correlations and systems of the dominant feature which determine that, in a given society and for a given sector—for things do not necessarily develop in step in different sectors, at a given moment, in a given society, in a given country—a technology of security, for example, will be set up,

taking up again and sometimes even multiplying juridical and disciplinary elements and redeploying them within its specific tactic. Still with regard to the penal domain, there is a very clear example of this at the moment. For some time now, for a good dozen years at least, it has been clear that the essential question in the development of the problematic of the penal domain, in the way in which it is reflected as well as in the way it is practiced, is one of security. Basically, the fundamental question is economics and the economic relation between the cost of repression and the cost of delinquency. Now what we see is that this problematic has led to such an inflation in disciplinary techniques, which were set up long ago however, that this increase of the disciplinary has been the point at which, if not scandal, at least friction has broken out—and the wound has been sufficiently sensitive to have provoked some real and even violent reactions. In other words, in a period of the deployment of mechanisms of security, it is the disciplinary that sparked off, not the explosion, for there has not been an explosion; but at least the most evident and visible conflicts. So, in this year's lectures I would like to show you in what this technology consists, in what some of these technologies [of security]* consist, it being understood that each of them consists to a great extent in the reactivation and transformation of the juridico-legal techniques and the disciplinary techniques I have talked about in previous years.

I will just outline another example in order to introduce another set of problems or to emphasize and generalize the problem (and again, these are examples that I have talked about a hundred times[†]). Take the exclusion of lepers in the Middle Ages, until the end of the Middle Ages.⁸ Although there were also many other aspects, exclusion essentially took place through a juridical combination of laws and regulations, as well as a set of religious rituals, which anyway brought about a division, and a binary type of division, between those who were lepers and those who were not. A second example is that of the plague (which again I have talked about,⁹ so I will return to it very briefly). The plague

* M.F.: disciplinary

[†] Foucault adds: and which are (followed by a word that is inaudible)

regulations formulated at the end of the Middle Ages, in the sixteenth and still in the seventeenth century, give a completely different impression, act in a completely differently way, have a completely different end, and above all use completely different instruments. These plague regulations involve literally imposing a partitioning grid on the regions and town struck by plague, with regulations indicating when people can go out, how, at what times, what they must do at home, what type of food they must have, prohibiting certain types of contact, requiring them to present themselves to inspectors, and to open their homes to inspectors. We can say that this is a disciplinary type of system. The third example, which we are currently studying in the seminar, is smallpox or inoculation practices from the eighteenth century.¹⁰ The problem is posed quite differently. The fundamental problem will not be the imposition of discipline, although discipline may be called on to help, so much as the problem of knowing how many people are infected with smallpox, at what age, with what effects, with what mortality rate, lesions or after-effects, the risks of inoculation, the probability of an individual dying or being infected by smallpox despite inoculation, and the statistical effects on the population in general. In short, it will no longer be the problem of exclusion, as with leprosy, or of quarantine, as with the plague, but of epidemics and the medical campaigns that try to halt epidemic or endemic phenomena.

Here again, moreover, we need only look at the body of laws and the disciplinary obligations of modern mechanisms of security to see that there is not a succession of law, then discipline, then security, but that security is a way of making the old armatures of law and discipline function in addition to the specific mechanisms of security. So, in Western societies, in the domain of law, in the domain of medicine, and in other domains also, which is why I have given this other example, you can see a somewhat similar evolution and more or less the same type of transformations. What is involved is the emergence of technologies of security within mechanisms that are either specifically mechanisms of social control, as in the case of the penal system, or mechanisms with the function of modifying something in the biological destiny of the species. Can we say then—and this is what is at stake in what I want to analyze—that the general economy of power in our societies is becoming a domain

of security? So, in these lectures I would like to undertake a sort of history of technologies of security and try to identify whether we can really speak of a society of security. At any rate, under this name of a society of security, I would like simply to investigate whether there really is a general economy of power which has the form [of], or which is at any rate dominated by, the technology of security.

So, some general features of these apparatuses (*dispositifs*) of security. I would like to identify four, I don't know how many . . . anyway I will start by analyzing some of them. First of all I would like to study a little, just in an overview, what could be called spaces of security. Second, I would like to study the problem of the treatment of the uncertain, the aleatory. Third, I will study the form of normalization specific to security, which seems to me to be different from the disciplinary type of normalization. And finally, I will come to what will be the precise problem of this year, which is the correlation between the technique of security and population as both the object and subject of these mechanisms of security, that is to say, the emergence not only of the notion, but also of the reality of population. Population is undoubtedly an idea and a reality that is absolutely modern in relation to the functioning of political power, but also in relation to knowledge and political theory, prior to the eighteenth century.

So, first, questions of space, broadly speaking. Baldly, at first sight and somewhat schematically, we could say that sovereignty is exercised within the borders of a territory, discipline is exercised on the bodies of individuals, and security is exercised over a whole population. Territorial borders, individual bodies, and a whole population, yes . . . but this is not the point and I don't think it holds together. In the first place it does not hold together because we already come across the problem of multiplicities in relation to sovereignty and discipline. If it is true that sovereignty is basically inscribed and functions within a territory, and that the idea of sovereignty over an unpopulated territory is not only a juridically and politically acceptable idea, but one that is absolutely accepted and primary, nevertheless the effective, real, daily operations of the actual exercise of sovereignty point to a certain multiplicity, but one which is treated as the multiplicity of subjects, or [as] the multiplicity of a people.

Discipline is of course also exercised on the bodies of individuals, but I have tried to show you how the individual is not the primary datum on which discipline is exercised. Discipline only exists insofar as there is a multiplicity and an end, or an objective or result to be obtained on the basis of this multiplicity. School and military discipline, as well as penal discipline, workshop discipline, worker discipline, are all particular ways of managing and organizing a multiplicity, of fixing its points of implantation, its lateral or horizontal, vertical and pyramidal trajectories, its hierarchy, and so on. The individual is much more a particular way of dividing up the multiplicity for a discipline than the raw material from which it is constructed. Discipline is a mode of individualization of multiplicities rather than something that constructs an edifice of multiple elements on the basis of individuals who are worked on as, first of all, individuals. So sovereignty and discipline, as well as security, can only be concerned with multiplicities.

On the other hand, problems of space are equally common to all three. It goes without saying for sovereignty, since sovereignty is first of all exercised within the territory. But discipline involves a spatial division, and I think security does too, and the different treatment of space by sovereignty, discipline, and security, is precisely what I want to talk about.

We will take again a series of examples. Obviously, I will look at the case of towns. In the seventeenth century, and at the beginning of the eighteenth century, the town still had a particular legal and administrative definition that isolated it and marked it out quite specifically in comparison with other areas and spaces of the territory. Second, the town was typically confined within a tight, walled space, which had much more than just a military function. Finally, it was much more economically and socially mixed than the countryside.

Now, in the seventeenth and eighteenth centuries this gave rise to a number of problems linked to the development of administrative states, for which the juridical specificity of the town posed a difficult problem. Second, the growth of trade, and then, in the eighteenth century, urban demography, raised the problem of the town's compression and enclosure within its walls. The development of military techniques raised the same problem. Finally, the need for permanent economic exchanges

between the town and its immediately surrounding countryside, for means of subsistence, and with more distant areas, for its commercial relations, [ensured that] the enclosure and hemming in of the town [also] posed a problem. Broadly speaking, what was at issue in the eighteenth century was the question of the spatial, juridical, administrative, and economic opening up of the town: resituating the town in a space of circulation. On this point I refer you to a study that, since it was made by an historian, is extraordinarily complete and perfect: it is Jean-Claude Perrot's study of Caen in the eighteenth century, in which he shows that the problem of the town was essentially and fundamentally a problem of circulation.¹¹

Take a text from the middle of the seventeenth century, *La Métropolitée*, written by someone called Alexandre Le Maître.¹² Alexandre Le Maître was a protestant who left France before the Edict of Nantes and who became, and the term is significant, general engineer of the Elector of Brandenburg. He dedicated *La Métropolitée* to the king of Sweden, the book being published in Amsterdam. All of this—protestant, Prussia, Sweden, Amsterdam—is not entirely without significance. The problem of *La Métropolitée* is: Must a country have a capital city, and in what should it consist? Le Maître's analysis is the following: The state, he says, actually comprises three elements, three orders, three estates even; the peasants, the artisans, and what he calls the third order, or the third estate, which is, oddly, the sovereign and the officers in his service.¹³ The state must be like an edifice in relation to these three elements. The peasants, of course, are the foundations of the edifice, in the ground, under the ground, unseen but ensuring the solidity of the whole. The common parts, the service quarters of the edifice, are, of course, the artisans. As for the noble quarters, the living and reception areas, these are the sovereign's officers and the sovereign himself.¹⁴ On the basis of this architectural metaphor, the territory must also comprise foundations, common parts, and noble parts. The foundations will be the countryside, and it goes without saying that all the peasants, and only peasants, must live in the countryside. Second, all the artisans, and only artisans, must live in the small towns. Finally, the sovereign, his officers, and those artisans and tradesmen who are indispensable to the functioning of the court and the sovereign's entourage, must live in the capital.¹⁵ Le Maître sees the relationship

between the capital and the rest of the territory in different ways. It must be a geometrical relationship in the sense that a good country is one that, in short, must have the form of a circle, and the capital must be right at the center of the circle.¹⁶ A capital at the end of an elongated and irregular territory would not be able to exercise all its necessary functions. In fact, this is where the second, aesthetic and symbolic, relationship between the capital and the territory appears. The capital must be the ornament of the territory.¹⁷ But this must also be a political relationship in that the decrees and laws must be implanted in the territory [in such a way] that no tiny corner of the realm escapes this general network of the sovereign's orders and laws.¹⁸ The capital must also have a moral role, and diffuse throughout the territory all that is necessary to command people with regard to their conduct and ways of doing things.¹⁹ The capital must give the example of good morals.²⁰ The capital must be the place where the holy orators are the best and are best heard,²¹ and it must also be the site of academies, since they must give birth to the sciences and truth that is to be disseminated in the rest of the country.²² Finally, there is an economic role: the capital must be the site of luxury so that it is a point of attraction for products coming from other countries,²³ and at the same time, through trade, it must be the distribution point of manufactured articles and products, etcetera.²⁴

We can leave aside the strictly utopian aspect of this project. All the same, I think it is interesting because it seems to me that this is essentially a definition of the town, a reflection on the town, in terms of sovereignty. That is to say, the primary relationship is essentially that of sovereignty to the territory, and this serves as the schema, the grid, for arriving at an understanding of what a capital city should be and how it can and should function. Moreover, it is interesting how, through this grid of sovereignty, a number of specifically urban functions appear as the fundamental problem: economic, moral, and administrative functions, etcetera. In short, the interesting thing is that Le Maitre dreams of connecting the political effectiveness of sovereignty to a spatial distribution. A good sovereign, be it a collective or individual sovereign, is someone well placed within a territory, and a territory that is well policed in terms of its obedience to the sovereign is a territory that has a good spatial layout. All of this, this idea of the political effectiveness of

sovereignty, is linked to the idea of an intensity of circulations: circulation of ideas, of wills, and of orders, and also commercial circulation. Ultimately, what is involved for Le Maitre—and this is both an old idea, since it is a matter of sovereignty, and a modern idea, since it involves circulation—is the superimposition of the state of sovereignty, the territorial state, and the commercial state. It involves fastening them together and mutually reinforcing them. I don't need to tell you that in this period, and in this region of Europe, we are right in the middle of mercantilism, or rather of cameralism,²⁵ that is to say, of the problem of how to ensure maximum economic development through commerce within a rigid system of sovereignty. In short, Le Maitre's problem is how to ensure a well "capitalized" state, that is to say, a state well organized around a capital as the seat of sovereignty and the central point of political and commercial circulation. Since Le Maitre was the general engineer of the Elector of Brandenburg, we could see here a filiation between the idea of a well "capitalized"* state or province, and Fichte's famous closed commercial state,²⁶ that is to say the evolution from cameralist mercantilism to the German national economy of the beginning of the nineteenth century. In any case, in this text the town-capital is thought in terms of relations of sovereignty exercised over a territory.

I will now take another example. I could just as well have taken it from the same part of the world, that is to say, from the region of Northern Europe extending from Holland to Sweden, around the North Sea and the Baltic Sea, which was so important in the thought and political theory of the seventeenth century. Kristiania,²⁷ and Gothenburg²⁸ in Sweden would be examples. I will take an example from France. A whole series of artificial towns were built, some in Northern Europe and some here in France, in the time of Louis XIII and Louis XIV. Take a little town called Richelieu, which was built from scratch on the borders of Touraine and Poitou.²⁹ A town is built where previously there was nothing. How is it built? The famous form of the Roman camp is used, which, along with the military institution, was being reutilized at this time as a fundamental instrument of discipline. The form of the Roman camp was revived at the end of the

* The inverted commas appear in the manuscript for the lectures, p. 8.

sixteenth and the beginning of the seventeenth century, precisely in protestant countries—and hence the importance of all this in Northern Europe—along with the exercises, the subdivision of troops, and collective and individual controls in the major undertaking of the disciplinization of the army.³⁰ Now, whether it is Kristiania, Gothenburg, or Richelieu, the form of the camp is used. The form is interesting. Actually, in the previous case, Le Maître's *La Métropolitée*, the layout of the town was basically thought of in terms of the most general, overall category of the territory. One tried to think about the town through a macrocosm, since the state itself was thought of as an edifice. In short, the interplay of macrocosm and microcosm ran through the problematic of the relationship between town, sovereignty, and territory. In the case of towns constructed in the form of the camp, we can say that the town is not thought of on the basis of the larger territory, but on the basis of a smaller, geometrical figure, which is a kind of architectural module, namely the square or rectangle, which is in turn subdivided into other squares or rectangles.

It should be stressed straightaway that, in the case of Richelieu at least, as in well-planned camps and good architecture, this figure, this module, is not merely the application of a principle of symmetry. Certainly, there is an axis of symmetry, but it is framed by and functions thanks to well-calculated dissymmetries. In a town like Richelieu, for example, there is a central street that divides the rectangle of the town into two rectangles, and then there are other streets, some parallel to and others at right angles to the central street, but at different distances from each other, some closer, others further apart, such that the town is subdivided into rectangles of different sizes, going from the larger to the smaller. The biggest rectangles, that is to say, where the streets are furthest apart, are at one end of the town, and the smallest, with the tighter grid, are at the other. People must live on the side of the biggest rectangles, where the grid is widest and the roads are broad. Conversely, trades, artisans, and shops, as well as markets, must be situated where the grid is much tighter. And this commercial area—we can see how the problem of circulation [...*], more trade means more circulation and

* Incomplete sentence.

the greater need for streets and the possibility of cutting across them, etcetera—is flanked by the church on one side, and by the market on the other. There will be two categories of houses in the residential area where the rectangles are bigger. On the one hand, there are those overlooking the main thoroughfare, or the streets parallel to it, which will be houses with a number of floors, two I think, and attics. On the other hand, the smaller houses with only one floor will be in the streets perpendicular to the main street: difference of social status, of wealth, etcetera. In this simple schema I think we find again the disciplinary treatment of multiplicities in space, that is to say, [the] constitution of an empty, closed space within which artificial multiplicities are to be constructed and organized according to the triple principle of hierarchy, precise communication of relations of power, and functional effects specific to this distribution, for example, ensuring trade, housing, and so on. For Le Maître and his *Métropolitée* what was involved was “capitalizing” a territory. Here, it is a case of structuring a space. Discipline belongs to the order of construction (in the broad sense of construction).

And now, the third example. This will be the real development of towns that actually existed in the eighteenth century. There are a whole series of them. I will take the example of Nantes, which was studied in 1932, I think, by someone called Pierre Lelièvre, who provided different construction and development plans for Nantes.³¹ It is an important town because, on the one hand, it is undergoing commercial development, and, on the other, its relations with England meant that the English model was employed. The problem of Nantes is, of course, getting rid of overcrowding, making room for new economic and administrative functions, dealing with relationships with the surrounding countryside, and finally allowing for growth. I will skip the nonetheless delightful project of an architect called Rousseau who had the idea of reconstructing Nantes around a sort of boulevard-promenade in the form of a heart.³² It's true that he is dreaming, but the project is nonetheless significant. We can see that the problem was circulation, that is to say, for the town to be a perfect agent of circulation it had to have the form of a heart that ensures the circulation of blood. It's laughable, but after all, at the end of the eighteenth century, with Boullée,³³

Ledoux,³⁴ and others, architecture still often functions according to such principles, the good form having to be the support of the exact exercise of the function. In actual fact, the projects realized at Nantes did not have the form of the heart. They were projects, and one project in particular put forward by someone called Vigné de Vigny,³⁵ in which there was no question of reconstructing everything, or of imposing a symbolic form that could ensure the function, but projects in which something precise and concrete was at stake.

It involved cutting routes through the town, and streets wide enough to ensure four functions. First, hygiene, ventilation, opening up all kinds of pockets where morbid miasmas accumulated in crowded quarters, where dwellings were too densely packed. So, there was a hygienic function. Second, ensuring trade within the town. Third, connecting up this network of streets to external roads in such a way that goods from outside can arrive or be dispatched, but without giving up the requirements of customs control. And finally, an important problem for towns in the eighteenth century was allowing for surveillance, since the suppression of city walls made necessary by economic development meant that one could no longer close towns in the evening or closely supervise daily comings and goings, so that the insecurity of the towns was increased by the influx of the floating population of beggars, vagrants, delinquents, criminals, thieves, murderers, and so on, who might come, as everyone knows, from the country [...*]. In other words, it was a matter of organizing circulation, eliminating its dangerous elements, making a division between good and bad circulation, and maximizing the good circulation by diminishing the bad. It was therefore also a matter of planning access to the outside, mainly for the town's consumption and for its trade with the outside. An axis of circulation with Paris was organized, the Erdre was developed along which wood for heating was bought from Brittany. Finally, Vigny's redevelopment plan involved responding to what is, paradoxically, a fairly new and fundamental question of how to integrate possible future developments within a present plan. This was the problem of the commerce of the

* Some inaudible words.

quays and what was not yet called the docks. The town is seen as developing: a number of things, events and elements, will arrive or occur. What must be done to meet something that is not exactly known in advance? The idea is quite simply to use the banks of the Loire to build the longest, largest possible quays. But the more the town is elongated, the more one loses the benefit of that kind of clear, coherent grid of subdivisions. Will it be possible to administer a town of such considerable extent, and will circulation be able to take place if the town is indefinitely elongated? Vigny's project was to construct quays along one side of the Loire, allow a quarter to develop, and then to construct bridges over the Loire, resting on islands, and to enable another quarter to develop starting from these bridges, a quarter opposite the first, so that the balance between the two banks of the Loire would avoid the indefinite elongation of one of its sides.

The details of the planned development are not important. I think the plan is quite important, or anyway significant, for a number of reasons. First, there is no longer any question of construction within an empty or emptied space, as in the case of those, let's say, disciplinary towns such as Richelieu, Kristiania, and suchlike. Discipline works in an empty, artificial space that is to be completely constructed. Security will rely on a number of material givens. It will, of course, work on site with the flows of water, islands, air, and so forth. Thus it works on a given. [Second], this given will not be reconstructed to arrive at a point of perfection, as in a disciplinary town. It is simply a matter of maximizing the positive elements, for which one provides the best possible circulation, and of minimizing what is risky and inconvenient, like theft and disease, while knowing that they will never be completely suppressed. One will therefore work not only on natural givens, but also on quantities that can be relatively, but never wholly reduced, and, since they can never be nullified, one works on probabilities. Third, these town developments try to organize elements that are justified by their poly-functionality. What is a good street? A good street is one in which there is, of course, a circulation of what are called miasmas, and so diseases, and the street will have to be managed according to this necessary, although hardly desirable role. Merchandise will be taken down the street, in which there will also be shops. Thieves and possibly rioters

will also be able to move down the street. Therefore all these different functions of the town, some positive and others negative, will have to be built into the plan. Finally, the fourth important point, is that one works on the future, that is to say, the town will not be conceived or planned according to a static perception that would ensure the perfection of the function there and then, but will open onto a future that is not exactly controllable, not precisely measured or measurable, and a good town plan takes into account precisely what might happen. In short, I think we can speak here of a technique that is basically organized by reference to the problem of security, that is to say, at bottom, to the problem of the series. An indefinite series of mobile elements: circulation, x number of carts, x number of passers-by, x number of thieves, x number of miasmas, and so on.* An indefinite series of events that will occur: so many boats will berth, so many carts will arrive, and so on. And equally an indefinite series of accumulating units: how many inhabitants, how many houses, and so on. I think the management of these series that, because they are open series can only be controlled by an estimate of probabilities, is pretty much the essential characteristic of the mechanism of security.

To summarize all this, let's say then that sovereignty capitalizes a territory, raising the major problem of the seat of government, whereas discipline structures a space and addresses the essential problem of a hierarchical and functional distribution of elements, and security will try to plan a milieu in terms of events or series of events or possible elements, of series that will have to be regulated within a multivalent and transformable framework. The specific space of security refers then to a series of possible events; it refers to the temporal and the uncertain, which have to be inserted within a given space. The space in which a series of uncertain elements unfold is, I think, roughly what one can call the milieu. As you well know, the milieu is a notion that only appears in biology with Lamarck.³⁶ However, it is a notion that already existed in physics and was employed by Newton and the Newtonians.³⁷ What is the milieu? It is what is needed to account for action at a distance of one

* Foucault repeats: An indefinite series of mobile elements.

body on another. It is therefore the medium of an action and the element in which it circulates.³⁸ It is therefore the problem of circulation and causality that is at stake in this notion of milieu. So, I think the architects, the town planners, the first town planners of the eighteenth century, did not actually employ the notion of milieu, since, as far as I have been able to see, it is never employed to designate towns or planned spaces. On the other hand, if the notion does not exist, I would say that the technical schema of this notion of milieu, the kind of—how to put it?—pragmatic structure which marks it out in advance is present in the way in which the town planners try to reflect and modify urban space. The apparatuses of security work, fabricate, organize, and plan a milieu even before the notion was formed and isolated. The milieu, then, will be that in which circulation is carried out. The milieu is a set of natural givens—rivers, marshes, hills—and a set of artificial givens—an agglomeration of individuals, of houses, etcetera. The milieu is a certain number of combined, overall effects bearing on all who live in it. It is an element in which a circular link is produced between effects and causes, since an effect from one point of view will be a cause from another. For example, more overcrowding will mean more miasmas, and so more disease. More disease will obviously mean more deaths. More deaths will mean more cadavers, and consequently more miasmas, and so on. So it is this phenomenon of circulation of causes and effects that is targeted through the milieu. Finally, the milieu appears as a field of intervention in which, instead of affecting individuals as a set of legal subjects capable of voluntary actions—which would be the case of sovereignty—and instead of affecting them as a multiplicity of organisms, of bodies capable of performances, and of required performances—as in discipline—one tries to affect, precisely, a population. I mean a multiplicity of individuals who are and fundamentally and essentially only exist biologically bound to the materiality within which they live. What one tries to reach through this milieu, is precisely the conjunction of a series of events produced by these individuals, populations, and groups, and quasi natural events which occur around them.

It seems to me that with this technical problem posed by the town—but this is only one example, there are many others and we will come back to this—we see the sudden emergence of the problem of the

"naturalness"* of the human species within an artificial milieu. It seems to me that this sudden emergence of the naturalness of the species within the political artifice of a power relation is something fundamental, and to finish I will just refer to a text from someone who was no doubt the first great theorist of what we could call biopolitics, biopower. He speaks of it in connection with something different, the birth rate, which was of course one of the major issues, but very quickly we see the notion of milieu appear here as the target of intervention for power, and which appears to me completely different from the juridical notion of sovereignty and the territory, as well as from disciplinary space. [With regard to] this idea of an artificial and natural milieu, in which artifice functions as a nature in relation to a population that, while being woven from social and political relations, also functions as a species, we find in Moheau's *Recherches sur la population*³⁹ a statement of this kind: "It is up to the government to change the air temperature and to improve the climate; a direction given to stagnant water, forests planted or burnt down, mountains destroyed by time or by the continual cultivation of their surface, create a new soil and a new climate. The effect of time, of occupation of the land, and of vicissitudes in the physical domain, is such that the most healthy districts become moribund."⁴⁰ He refers to a verse in Virgil concerning wine freezing in barrels, and says: Will we ever see wine freeze in barrels today in Italy?⁴¹ Well, if there has been so much change, it is not the climate that has changed; the political and economic interventions of government have altered the course of things to the point that nature itself has constituted for man, I was going to say another milieu, except that the word "milieu" does not appear in Moheau. In conclusion he says: "If the unknown principle that forms the character and the mind is the outcome of the climate, the regime, the customs, and the habit of certain actions, we can say that sovereigns, by wise laws, by useful establishments, through the

* In inverted commas in the manuscript, p. 16. Foucault writes: "To say that this is the sudden emergence of the 'naturalness' of the human species in the field of techniques of power would be excessive. But what [before] then appeared above all in the form of need, insufficiency, or weakness, illness, now appears as the intersection between a multiplicity of living individuals working and coexisting with each other in a set of material elements that act on them and on which they act in turn."

inconvenience of taxes, and the freedom resulting from their suppression, in short by their example, govern the physical and moral existence of their subjects. Perhaps one day we will be able to call on these means to give whatever hue we wish to morality and the national spirit."⁴² You can see that we again encounter the problem of the sovereign here, but the sovereign is no longer someone who exercises his power over a territory on the basis of a geographical localization of his political sovereignty. The sovereign deals with a nature, or rather with the perpetual conjunction, the perpetual intrication of a geographical, climatic, and physical milieu with the human species insofar as it has a body and a soul, a physical and a moral existence; and the sovereign will be someone who will have to exercise power at that point of connection where nature, in the sense of physical elements, interferes with nature in the sense of the nature of the human species, at that point of articulation where the milieu becomes the determining factor of nature. This is where the sovereign will have to intervene, and if he wants to change the human species, Moheau says, it will be by acting on the milieu. I think we have here one of the axes, one of the fundamental elements in this deployment of mechanisms of security, that is to say, not yet the appearance of a notion of milieu, but the appearance of a project, a political technique that will be addressed to the milieu.

1. See, "Il faut défendre la société." *Cours au Collège de France, 1975-1976*, eds. M. Bertani and A. Fontana (Paris: Gallimard-Le Seuil, 1997) p. 216; English translation by David Macey, "Society Must Be Defended." *Lectures at the Collège de France, 1975-1976*, eds. M. Bertani and A. Fontana, English series ed. Arnold Davidson (New York: Picador, 2003) p. 243; "What does this new technology of power, this biopolitics, this bio-power that is beginning to establish itself, involve?"; *La Volonté de savoir* (Paris: Gallimard, 1976) p. 184; English translation by Robert Hurley, *The History of Sexuality, vol. 1: An Introduction* (New York: Pantheon, 1978) p. 140.
2. These phrases should be brought together with those made by Foucault at the end of the same year in his long interview with D. Trombadori, on his disappointment, returning from Tunisia, with the theoretical polemics of the movements of the extreme left following May 1968: "We have spoken of the hyper-Marxism in France, of the explosion of theories, of anathemas, and the fragmentation into little groups. This was precisely the exact opposite, the reverse, the contrary of what had fascinated me in Tunisia [with the student riots of March 1968]. Perhaps this explains the way in which I tried to approach things from that time, standing back from those infinite discussions, that hyper-Marxization [...] I tried to do things that involved a personal commitment that was physical and real, and which would pose problems in concrete, precise, and definite terms in a given situation." "Entretien avec Michel Foucault" in Michel Foucault, *Dits et Écrits, 1954-1988*, in 4 volumes, eds. D. Defert and F. Ewald, with the assistance of Jacques Lagrange (Paris: Gallimard, 1994), vol. 4, p. 80; English translation (of Italian version) by R. James Goldstein and James Cascaito, as *Remarks on Marx. Conversations with Duccio Trombadori* (New York: Semiotext(e), 1991) p. 139. On the link between this conception of commitment and Foucault's observations on the events in Iran in October and November 1978, see the "Course Context" below, pp. 375-376.
3. See the lecture of 1 February 1978 (below p. 108) in which Foucault notes that a more accurate title for the course would have been "a history of 'governmentality.'" The lecture has appeared separately as: "La 'gouvernementalité'," *Dits et Écrits*, vol. 3, p. 655; English translation (from Italian) by Rosi Braidotti, revised by Colin Gordon, "Governmentality" in Michel Foucault, *Essential Works of Foucault, 1954-1984, vol. 3: Power*, ed. James D. Faubion, trans. Robert Hurley and others (New York: The New Press, 2000) p. 219.
4. See, Michel Foucault, *Surveiller et Punir. Naissance de la prison* (Paris: Gallimard, 1975); English translation by A. Sheridan, *Discipline and Punish. Birth of the Prison* (London: Allen Lane and New York: Pantheon, 1977).
5. Foucault distinguishes security mechanisms from disciplinary mechanisms for the first time in the final lecture (17 March 1976) of the 1975-1976 course "Il faut défendre la société" p. 219; "Society Must Be Defended" p. 246. However, the concept of "security" is not taken up in *La Volonté de savoir* where, in opposition to the disciplines, which are exercised on the bodies of individuals, Foucault prefers to speak of "regulatory controls" that take charge of the health and life of populations (p. 183; *History of Sexuality, vol. 1*, p. 145).
6. On these new penal forms in American neo-liberal discourse, see *Naissance de la biopolitique. Cours au Collège de France, 1978-1979*, ed. M. Senellart (Paris: Gallimard-Le Seuil, 2004), lecture of 21 March 1979, p. 245 sq.
7. These are the judicial statistics published every year, since 1825, by the Minister of Justice. See, A.-M. Guerry, *Essai sur la statistique morale de la France* (Paris: Crochard, 1833) p. 5: "The first authentic documents published on the administration of criminal justice in France only go back to 1825. (...) Today, every quarter the public prosecutors send to the Minister of Justice accounts of the criminal or correctional matters brought before the courts of their jurisdiction. These reports drafted according to uniform models, so that they present only positive and comparable results, are carefully examined at the Ministry, checked against each other in their various parts, and the analysis of them at the end of the year forms the *General account of the administration of criminal justice*."
8. See, *Histoire de la folie à l'âge classique* (Paris: Gallimard, 1972) pp. 13-16; (abridged) English translation by R. Howard, *Madness and Civilization* (New York: Random House, 1965 and London: Tavistock, 1967) pp. 3-7; *Les Anormaux. Cours au Collège de France,*

- 1974-1975, eds. V. Marchetti and A. Salomoni (Paris: Gallimard-Le Seuil, 1999) lecture of 15 January 1975, pp. 40-41; English translation by Graham Burchell, *Abnormal. Lectures at the Collège de France 1974-1975*, English series ed. Arnold I. Davidson (New York: Picador, 2003) pp. 43-44; *Surveiller et Punir*, pp. 197-200; *Discipline and Punish*, pp. 198-200.
9. *Les Anormaux*, pp. 41-45; *Abnormal*, pp. 44-48; *Surveiller et Punir*, pp. 197-200; *Discipline and Punish*, pp. 198-200.
10. Foucault returns to this theme in the lecture of 25 January, p. 57 sq. On the paper given by A.-M. Moulin in the seminar, see below, lecture of 25 January, note 2.
11. Jean-Claude Perrot, *Genèse d'une ville moderne. Caen au XVIII^e siècle*, University of Lille thesis, 1974, 2 volumes (Paris-The Hague: Mouton, 1975). Michèle Perrot refers to this book in her postface to Jeremy Bentham, *La Panoptique* (Paris: Belfond, 1977): "L'inspecteur Bentham" p. 189 and p. 208. Foucault contributed to this work in his interview with J.-P. Barrou and M. Perrot, "L'œil du pouvoir"; English translation by Colin Gordon, "The eye of power" in Michel Foucault, *Power/Knowledge. Selected Interviews and Other Writings 1972-1977*, ed. Colin Gordon (Brighton: The Harvester Press, 1980).
12. Alexandre Le Maître (Quartermaster and General Engineer for S.A.E. Brandenburg), *La Métropolite, ou De l'établissement des villes Capitales, de leur Utilité passive & active, de l'Union de leurs parties & de leur anatomie, de leur commerce, etc.* (Amsterdam: B. Bockholt, 1682, reprinted, Éditions d'histoire sociale, 1973).
13. *La Métropolite*, ch. X, pp. 22-24: "Of the three Estates that should be distinguished in a Province; their function and their qualities."
14. *Ibid.*
15. *Ibid.* ch. XI, pp. 25-27: "As in the Countryside or villages there are only peasants, the Artisans must be distributed in the small towns, having only in the big Towns, or the Capital cities, the leading people and those Artisans who are absolutely necessary."
16. *Ibid.* ch. XVIII, pp. 51-54: "The size that the country, the Province, must have; or the district in which one will situate the Capital city."
17. *Ibid.* ch. IV, pp. 11-12: "The Capital city does not only possess the useful, but also the honor, not only of wealth, but also of rank and glory."
18. *Ibid.* ch. XVIII, p. 52: "[The Capital] will be the political heart giving life and movement to the entire body of the Province, through the fundamental principle of the ruling science, which forms a whole of several parts, without destroying them."
19. *Ibid.* ch. XXIII, p. 69: "It is (...) necessary that the Prince's Eye casts its rays over the movements of his people, that he observes their conduct, can note them closely, and that his presence alone keeps vice, disorder, and injustice in check. This can best be achieved only through the union of the parts in the *Métropolitaine*."
20. *Ibid.* pp. 67-72: "The Sovereign's presence is necessary in his Estates where the greatest commerce takes place, to be witness of the actions and trade of his Subjects, to keep them in equity and fear, to be seen by the people, and be like their Sun, which illuminates them by his presence."
21. *Ibid.* ch. XXVIII, pp. 79-87: "In the *Métropolitaine* the professors and preachers must be famous orators."
22. *Ibid.* ch. XVIII, pp. 76-79: "There are powerful reasons for the foundation of Academies in the Capital cities, or *Métropolitaines*."
23. *Ibid.* ch. XXVII, pp. 72-73: "The Capital, having the greatest consumption, must also be the site of commerce."
24. *Ibid.* ch. V, pp. 12-13: "The essential and final cause of the Capital city can only be public Utility, and to this end it must be the most opulent."
25. Cameralistics, or cameral science (*Cameralwissenschaft*), designates the science of finance and administration that developed from the seventeenth century in the "chambers" of princes, the organs of planning and bureaucratic control that will gradually replace traditional councils. In 1727 the discipline obtained the right to enter the universities of Halle and Frankfurt an der Oder, becoming an object of teaching for future state functionaries. See, M. Stolleis, *Geschichte des öffentlichen Rechts in Deutschland, 1600-1800* (Munich: C.H. Beck, 1988) vol. 1; French translation by M. Senellart, *Histoire du droit public en Allemagne, 1600-1800* (Paris: PUF, 1998) pp. 556-558. The creation of chairs in *Oeconomie-Police und Cammersachen* was the result of the desire of Frederick

- William I of Prussia to modernize the administration of his realm and to add the study of economics to that of law in the training of future functionaries. A.W. Small summarizes the thought of the cameralists in the following way: "To the cameralists the central problem of science was the problem of the state. To them the object of all social theory was to show how the welfare of the state might be secured. They see in the welfare of the state the source of all other welfare. Their key to the welfare of the state was revenue to supply the needs of the state. Their whole social theory radiated from the central task of furnishing the state with ready means." A.W. Small, *The Cameralists: The pioneers of German social polity* (Chicago: The University of Chicago Press, and London: T. Fisher Unwin, 1909) p. viii. On mercantilism, see below lecture of 5 April, p. 337.
26. Johann Gottlieb Fichte (1762-1814), *Der geschlossene Handelsstaat* (Tübingen: Gotta); French translation by J. Gibelin, *L'État commercial fermé* (Paris: Librairie générale de droit et de jurisprudence, 1930; new edition with introduction and notes by D. Schulthess, Lausanne: L'Âge d'homme, 1980). In this work dedicated to the Minister of Finance, the economist Struensee, Fichte protests against both liberalism and mercantilism, that he accuses of impoverishing the majority of the population, and opposes to them the model of a contractually founded "State of reason" controlling production and planning the allocation of resources.
27. Kristiania, or Christiania: old name for the capital of Norway (today Oslo, since 1925), rebaptized by the king Christian IV in 1624 after the fire that destroyed the town. Foucault always says "Kristiania."
28. Founded by Gustave II Adolphe in 1619, the town was constructed on the model of Dutch cities because of marshy terrain.
29. Situated south east of Chinon (Indre-et-Loire), on the side of the Mable, the town was built by Cardinal Richelieu, who demolished the old hovels, on the site of the patrimonial domain, in order to reconstruct it, starting in 1631, on a regular plan outlined by Jacques Lemercier (1585-1654). The work was directed by the latter's brother, Pierre Lemercier, who provided the plans of the chateau and the town in its entirety.
30. The Roman camp (*castra*) was a square or a rectangle subdivided into different squares and rectangles. On the Roman *castrametation* (or art of establishing armies in the camps), see the very detailed note in the *Nouvelle Larousse illustré*, vol. 2, 1899, p. 431. On the revival of this model, at the beginning of the seventeenth century, as a condition of military discipline and ideal form for "observatories" of human multiplicities—"The camp is the diagram of a power that acts by means of general visibility"—see *Surveiller et Punir*, pp. 173-174, and fig. 7; *Discipline and Punish*, pp. 170-172. The bibliography cited by Foucault is mainly French, with the exception of the treatise of J.J. von Wallhausen, *L'Art militaire pour l'infanterie* (Francker: Uldrick Balck, 1615) translation by J.Th. de Bry of *Kriegskunst zu Fuss* (cited p. 172, n. 1; trans. p. 171, n. 1, p. 316). Wallhausen was the first director of the *Schola militaris* founded at Siegen in Holland by Jean de Nassau in 1616. On the characteristics of the Dutch "military revolution" and its spread in Germany and Sweden, see the rich bibliography given by G. Parker in *The Thirty Years' War* (London: Routledge and Kegan Paul, 1984); French translation, *La Guerre de Trente Ans*, trans. A. Charpentier (Paris: Aubier, 1987).
31. P. Lelièvre, *L'Urbanisme et l'Architecture à Nantes au XVIII^e*, doctoral thesis (Nantes: Librairie Durand, 1942).
32. *Plan de la ville de Nantes et des projets d'embellissement; présentés par M. Rousseau, architecte, 1760*, with this dedication: "Illustrissimo atque ornatissimo D.D. Armando Duplessis de Richelieu, duci Aiguillon, pari Franciae." See P. Lelièvre, *L'Urbanisme*, pp. 89-90. "The only interest of such an utterly arbitrary imagination is its disconcerting fantasy." The plan of Nantes, with its heart form, is reproduced on the verso of p. 87. See also p. 205: "Is it absurd to suppose that the idea of 'circulation' could have inspired this anatomical figure criss-crossed with arteries? We go no further with this analogy confined to the schematic and stylized contour of the organ of circulation."
33. Étienne-Louis Boullée (1728-1799), French architect and designer. He preached the adoption of geometrical forms inspired by nature (see his projects for a Museum, a National Library, and a capital Palace for a great empire, or a tomb in honor of Newton, in J. Starobinski, 1789, *Les Emblèmes de la raison* (Paris: Flammarion, 1973) pp. 62-67; English translation by Barbara Bray, 1789, *The Emblems of Reason* (Charlottesville: University Press of Virginia, 1982) pp. 77-81.

34. Claude-Nicolas Ledoux (1736-1806), French architect and designer, author of *L'Architecture considérée sous le rapport de l'art, des mœurs et de la législation* (Paris: published by the author, 1804).
35. *Plan de la ville de Nantes, avec les changements et les accroissements par le sieur de Vigny, architecte du Roy et da la Société de Londres, intendant des bâtiments de Mgr le duc d'Orleans.—Fait par nous, architecte du Roy, à Paris, le 8 avril 1755*. See, P. Lelièvre, *L'Urbanisme*, pp. 84-89; see also the study devoted to him by L. Delattre, in *Bulletin de la Société archéologique et historique de Nantes* (1911) vol. LII, pp. 75-108.
36. Jean-Baptiste Monet de Lamarck (1744-1829), author of *Philosophie zoologique* (1809); see, George Canguilhem, "Le vivant et son milieu" in his *La Connaissance de la vie* (Paris: Vrin, 1965, p. 131): "Lamarck always speaks of milieus, in the plural, and by this expression he understands fluids like water, air, and light. When Lamarck wants to designate the set of actions exerted on a living being from outside, that is to say what we today call the milieu, he never says the milieu, but always, 'influential circumstances (circumstances influentes).' Consequently, for Lamarck, circumstances is a genus of which climate, location and milieu are the species."
37. See G. Canguilhem, *ibid.* pp. 129-130: "Considered historically, the notion and word milieu were imported into biology from mechanics in the second half of the eighteenth century. The mechanical notion, but not the word, appears with Isaac Newton, and the word, with its mechanical meaning, is present in D'Alembert's and Diderot's *Encyclopédie*. (...) The French mechanists called milieu what Newton understood by fluid, the type, if not the archetype, of which in Newton's physics is the ether." Canguilhem explains that it is through the intermediary of Buffon that Lamarck borrows from Newton the explanatory model of an organic reaction through the action of a milieu. On the emergence of the idea of milieu in the second half of the eighteenth century, through the notion of "penetrating forces (forces pénétrantes)" (Buffon), see Foucault, *Histoire de la folie*, pp. 385-392; *Madness and Civilization*, pp. 212-220. ("A negative notion (...) which appeared in the eighteenth century to explain variations and diseases rather than adaptations and convergences. As if these 'penetrating forces' formed the other, negative side of what will subsequently become the positive notion of milieu" p. 385 [this passage is omitted from the English translation].)
38. G. Canguilhem, *Connaissance de la vie*, p. 130: "The problem to be solved for mechanics in Newton's time was that of the action at a distance of distinct physical individuals."
39. Moheau, *Recherches et Considérations sur la population de la France* (Paris: Moutard, 1778; republished with an introduction and analytical table by R. Gonnard, Paris: P. Geuthner, "Collection des économistes et des réformateurs sociaux de la France," 1912; republished, annotated by É. Vilquin, Paris: INED/PUF, 1994). According to J.-Cl. Perrot, *Une histoire intellectuelle de l'économie politique, XVII^e-XVIII^e siècle* (Paris: Éd. de l'EHESS, "Civilisations et Sociétés," 1992) pp. 175-176 this book constitutes "the true 'spirit of the laws' of demography of the eighteenth century." The identity of the author ("Moheau," with no forename) has been the subject of controversy since the book was published. Behind the pseudonym, some have identified the baron Augé de Montyon, successively the *intendant* of Riom, Aix, and La Rochelle. It now appears to have been established that it was written by Jean-Baptiste Moheau, who was his secretary until 1775, and who died on the guillotine in 1794. See R. Le Mée, "Jean-Baptiste Moheau (1745-1794) et les Recherches... Un auteur énigmatique ou mythique?" in Moheau, *Recherches et Considérations*, 1994 edition, pp. 313-365.
40. *Recherches et Considérations*, Book II, part 2, ch. XVII: "The influence of Government on all the causes that can determine the progress or the loss of population," 1778 edition, pp. 154-155; 1912 edition, pp. 291-292; and 1994 edition, p. 307. The sentence is completed with "(...)" and no relationship at all is found between the degrees of cold and warmth in the same countries in different epochs."
41. *Ibid.*: "Virgil astonishes us when he speaks of wine freezing in barrels in Italy; certainly the Roman countryside was not what it is today, of the time of the Romans who improve the habitation of all the places that they submit to their domination" (1778, p. 155; 1912, p. 292; 1994, p. 307).
42. *Ibid.* p. 157; p. 293; pp. 307-308.