

ecture, I think that it should be much more along the lines of that general history of the *teckne*, rather than the histories of either the exact sciences or the inexact ones. The disadvantage of this word *teckne*, I realize, is its relation to the word "technology," which has a very specific meaning. A very narrow meaning is given to "technology": one thinks of hard technology, the technology of wood, of fire, of electricity. Whereas government is also a function of technology: the government of individuals, the government of souls, the government of the self by the self, the government of families, the government of the children, and so on. I believe that if one placed the history of architecture back in this general history of *teckne*, in this wide sense of the word, one would have a more interesting guiding concept than by considering opposition between the exact sciences and the inexact ones.

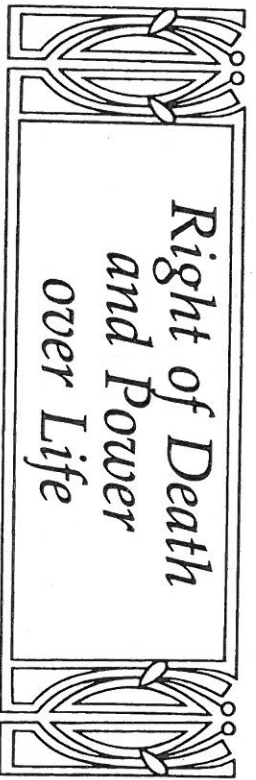
Notes

¹ See the article on Foucault in *Skyline* (March 1982), p. 14.

² Jean Bodin, *Republic* (Paris, 1577).

³ Alain Corbin, *Les Filles de nocces* (Aubier, 1978).

BIO-POWER



Right of Death and Power over Life

(FROM *The History of Sexuality*, Volume I)

For a long time, one of the characteristic privileges of sovereign power was the right to decide life and death. In a formal sense, it derived no doubt from the ancient *patria potestas* that granted the father of the Roman family the right to "dispose" of the life of his children and his slaves; just as he had given them life, so he could take it away. By the time the right of life and death was framed by the classical theoreticians, it was in a considerably diminished form. It was no longer considered that this power of the sovereign over his subjects could be exercised in an absolute and unconditional way, but only in cases where the sovereign's very existence was in jeopardy: a sort of right of rejoinder. If he was threatened by external enemies who sought to overthrow him or contest his rights, he could then legitimately wage war, and require his subjects to take part in the defense of the state; without "directly proposing their death," he was empowered to "expose their life": in this sense, he wielded an "indirect" power over them of life and death.¹ But if someone dared to rise up against him and transgress his laws, then he could exercise a direct power over the offender's life: as punishment, the latter could be put to death. Viewed in this way, the power of life and death was not an absolute privilege: it was conditioned by the defense of the sovereign, and his own survival. Must we follow Hobbes in seeing it as the transfer to the prince of the natural right possessed by every individual to defend his life even if this meant the death of others? Or should it be regarded as a specific right that was manifested with the formation of that new juridical being, the sovereign? In any case,

in its modern form—relative and limited—as in its ancient and absolute form, the right of life and death is a dissymmetrical one. The sovereign exercised his right of life only by exercising his right to kill, or by refraining from killing; he evidenced his power over life only through the death he was capable of requiring. The right which was formulated as the "power of life and death" was in reality the right to *take* life or *let* live. Its symbol, after all, was the sword. Perhaps this juridical form must be referred to a historical type of society in which power was exercised mainly as a means of deduction (*prélèvement*), a subtraction mechanism, a right to appropriate a portion of the wealth, a tax of products, goods and services, labor and blood, levied on the subjects. Power in this instance was essentially a right of seizure: of things, time, bodies, and ultimately life itself; it culminated in the privilege to seize hold of life in order to suppress it.

Since the classical age, the West has undergone a very profound transformation of these mechanisms of power. "Deduction" has tended to be no longer the major form of power but merely one element among others, working to incite, reinforce, control, monitor, optimize, and organize the forces under it: a power bent on generating forces, making them grow, and ordering them, rather than one dedicated to impeding them, making them submit, or destroying them. There has been a parallel shift in the right of death, or at least a tendency to align itself with the exigencies of a life-administering power and to define itself accordingly. This death that was based on the right of the sovereign is now manifested as simply the reverse of the right of the social body to ensure, maintain, or develop its life. Yet wars were never as bloody as they have been since the nineteenth century, and all things being equal, never before did regimes visit such holocausts on their own populations. But this formidable power of death—and this is perhaps what accounts for part of its force and the cynicism with which it has so greatly expanded its limits—now presents itself as the counterpart of a power that exerts a positive influence on life, that endeavors to administer, optimize, and multiply it, subjecting it to precise controls and comprehensive regulations. Wars are no longer waged in the name of a sovereign who must be de-

fended; they are waged on behalf of the existence of everyone; entire populations are mobilized for the purpose of wholesale slaughter in the name of life necessity: massacres have become vital. It is as managers of life and survival, of bodies and the race, that so many regimes have been able to wage so many wars, causing so many men to be killed. And through a turn that closes the circle, as the technology of wars has caused them to tend increasingly toward all-out destruction, the decision that initiates them and the one that terminates them are in fact increasingly informed by the naked question of survival. The atomic situation is now at the end point of this process: the power to expose a whole population to death is the underside of the power to guarantee an individual's continued existence. The principle underlying the tactics of battle—that one has to be capable of killing in order to go on living—has become the principle that defines the strategy of states. But the existence in question is no longer the juridical existence of sovereignty; at stake is the biological existence of a population. If genocide is indeed the dream of modern powers, this is not because of a recent return of the ancient right to kill; it is because power is situated and exercised at the level of life, the species, the race, and the large-scale phenomena of population.

On another level, I might have taken up the example of the death penalty. Together with war, it was for a long time the other form of the right of the sword; it constituted the reply of the sovereign to those who attacked his will, his law, or his person. Those who died on the scaffold became fewer and fewer, in contrast to those who died in wars. But it was for the same reasons that the latter became more numerous and the former more and more rare. As soon as power gave itself the function of administering life, its reason for being and the logic of its exercise—and not the awakening of humanitarian feelings—made it more and more difficult to apply the death penalty. How could power exercise its highest prerogatives by putting people to death, when its main role was to ensure, sustain, and multiply life, to put this life in order? For such a power, execution was at the same time a limit, a scandal, and a contradiction. Hence capital punishment could not be maintained except by invoking less the enormity of the crime itself than the monstrosity of the

criminal, his incorrigibility, and the safeguard of society. One had the right to kill those who represented a kind of biological danger to others.

One might say that the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death. This is perhaps what explains that disqualification of death which marks the recent wane of the rituals that accompanied it. That death is so carefully evaded is linked less to a new anxiety which makes death unbearable for our societies than to the fact that the procedures of power have not ceased to turn away from death. In the passage from this world to the other, death was the manner in which a terrestrial sovereignty was relieved by another, singularly more powerful sovereignty, the pagantry that surrounded it was in the category of political ceremony. Now it is over life, throughout its unfolding, that power establishes its domination; death is power's limit, the moment that escapes it; death becomes the most secret aspect of existence, the most "private." It is not surprising that suicide—once a crime, since it was a way to usurp the power of death which the sovereign alone, whether the one here below or the Lord above, had the right to exercise—became, in the course of the nineteenth century, one of the first conducts to enter into the sphere of sociological analysis; it testified to the individual and private right to die, at the borders and in the interstices of power that was exercised over life. This determination to die, strange and yet so persistent and constant in its manifestations, and consequently so difficult to explain as being due to particular circumstances or individual accidents, was one of the first astonishments of a society in which political power had assigned itself the task of administering life.

In concrete terms, starting in the seventeenth century, this power over life evolved in two basic forms; these forms were not antithetical, however; they constituted, rather, two poles of development linked together by a whole intermediary cluster of relations. One of these poles—the first to be formed, it seems—centered on the body as a machine: its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls, all this was ensured

by the procedures of power that characterized the disciplines: an *anatomo-politics of the human body*. The second, formed somewhat later, focused on the species body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary. Their supervision was effected through an entire series of interventions and *regulatory controls: a bio-politics of the population*. The disciplines of the body and the regulations of the population constituted the two poles around which the organization of power over life was deployed. The setting up, in the course of the classical age, of this great bipolar technology—*anatomic and biological, individualizing and specifying*, directed toward the performances of the body, with attention to the processes of life—characterized a power whose highest function was perhaps no longer to kill, but to invest life through and through.

The old power of death that symbolized sovereign power was now carefully supplanted by the administration of bodies and the calculated management of life. During the classical period, there was a rapid development of various disciplines—universities, secondary schools, barracks, workshops; there was also the emergence, in the field of political practices and economic observation, of the problems of birth rate, longevity, public health, housing, and migration. Hence there was an explosion of numerous and diverse techniques for achieving the subjugation of bodies and the control of populations, marking the beginning of an era of "bio-power." The two directions taken by its development still appeared to be clearly separate in the eighteenth century. With regard to discipline, this development was embodied in institutions such as the army and the schools, and in reflections on tactics, apprenticeship, education, and the nature of societies, ranging from the strictly military analyses of Marshal de Saxe to the political reveries of Guibert or Servan. As for population controls, one notes the emergence of demography, the evaluation of the relationship between resources and inhabitants, the constructing of tables analyzing wealth and its circulation: the work of Quesnay, Moheau, and Süßmilch. The philosophy of the "ideologists," as a theory of ideas, signs, and the individual genesis of sensations, but also a theory of the

social composition of interests—ideology being a doctrine of apprenticeship, but also a doctrine of contracts and the regulated formation of the social body—no doubt constituted the abstract discourse in which one sought to coordinate these two techniques of power in order to construct a general theory of it. In point of fact, however, they were not to be joined at the level of a speculative discourse, but in the form of concrete arrangements (*agencement concrets*) that would go to make up the great technology of power in the nineteenth century: the deployment of sexuality would be one of them, and one of the most important.

This bio-power was, without question, an indispensable element in the development of capitalism; the latter would not have been possible without the controlled insertion of bodies into the machinery of production and the adjustment of the phenomena of population to economic processes. But this was not all it required; it also needed the growth of both these factors, their reinforcement as well as their availability and docility; it had to have methods of power capable of optimizing forces, aptitudes, and life in general without at the same time making them more difficult to govern. If the development of the great instruments of the state, as *institutions of power*, ensured the maintenance of production relations, the rudiments of *anatomo- and bio-politics*, created in the eighteenth century as *techniques of power* present at every level of the social body and utilized by very diverse institutions (the family and the army, schools and the police, individual medicine and the administration of collective bodies), operated in the sphere of economic processes, their development, and the forces working to sustain them. They also acted as factors of segregation and social hierarchization, exerting their influence on the respective forces of both these movements, guaranteeing relations of domination and effects of hegemony. The adjustment of the accumulation of men to that of capital, the joining of the growth of human groups to the expansion of the productive forces and the differential allocation of profit, was made possible in part by the exercise of bio-power in its many forms and modes of application. The investment of the body, its valorization, and the distributive management of its forces were at the time indispensable.

One knows how many times the question has been raised concerning the role of an ascetic morality in the first formation of capitalism; but what occurred in the eighteenth century in some Western countries, an event bound up with the development of capitalism, was a different phenomenon, having perhaps a wider impact than the new morality; this was nothing less than the entry of life into history, that is, the entry of phenomena peculiar to the life of the human species into the order of knowledge and power, into the sphere of political techniques. It is not a question of claiming that this was the moment when the first contact between life and history was brought about. On the contrary, the pressure exerted by the biological on the historical had remained very strong for thousands of years; epidemics and famine were the two great dramatic forms of this relationship that was always dominated by the menace of death. But through a circular process, the economic—and primarily agricultural—development of the eighteenth century, and an increase in productivity and resources even more rapid than the demographic growth it encouraged, allowed a measure of relief from these profound threats: despite some renewed outbreaks, the period of great ravages from starvation and plague had come to a close before the French Revolution; death was ceasing to torment life so directly. But at the same time, the development of the different fields of knowledge concerned with life in general, the improvement of agricultural techniques, and the observations and measures relative to man's life and survival contributed to this relaxation: a relative control over life averted some of the imminent risks of death. In the space for movement thus conquered, and broadening and organizing that space, methods of power and knowledge assumed responsibility for the life processes and undertook to control and modify them. Western man was gradually learning what it meant to be a living species in a living world, to have a body, conditions of existence, probabilities of life, an individual and collective welfare, forces that could be modified, and a space in which they could be distributed in an optimal manner. For the first time in history, no doubt, biological existence was reflected in political existence; the fact of living was no longer an inaccessible substrate that only emerged from time to time, amid the randomness of death

and its fatality; part of it passed into knowledge's field of control and power's sphere of intervention. Power would no longer be dealing simply with legal subjects over whom the ultimate domination was death, but with living beings, and the mastery it would be able to exercise over them would have to be applied at the level of life itself; it was the taking charge of life, more than the threat of death, that gave power its access even to the body. If one can apply the term *bio-history* to the pressures through which the movements of life and the processes of history interfere with one another, one would have to speak of *bio-power* to designate what brought life and its mechanisms into the realm of explicit calculations and made knowledge-power an agent of transformation of human life. It is not that life has been totally integrated into techniques that govern and administer it; it constantly escapes them. Outside the Western world, famine exists, on a greater scale than ever; and the biological risks confronting the species are perhaps greater, and certainly more serious, than before the birth of microbiology. But what might be called a society's "threshold of modernity" has been reached when the life of the species is wagered on its own political strategies. For millennia, man remained what he was for Aristotle: a living animal with the additional capacity for a political existence; modern man is an animal whose politics places his existence as a living being in question.

This transformation had considerable consequences. It would serve no purpose here to dwell on the rupture that occurred then in the pattern of scientific discourse and on the manner in which the twofold problematic of life and man disrupted and redistributed the order of the classical episteme. If the question of man was raised—insofar as he was a specific living being, and specifically related to other living beings—the reason for this is to be sought in the new mode of relation between history and life: in this dual position of life that placed it at the same time outside history, in its biological environment, and inside human historicity, penetrated by the latter's techniques of knowledge and power. There is no need either to lay further stress on the proliferation of political technologies that ensued, investing the body, health, modes of subsistence and habitation, living conditions, the whole space of existence.

Another consequence of this development of bio-power was the growing importance assumed by the action of the norm, at the expense of the juridical system of the law. Law cannot help but be armed, and its arm *par excellence* is death; to those who transgress it, it replies, at least as a last resort, with that absolute menace. The law always refers to the sword. But a power whose task is to take charge of life needs continuous regulatory and corrective mechanisms. It is no longer a matter of bringing death into play in the field of sovereignty, but of distributing the living in the domain of value and utility. Such a power has to qualify, measure, appraise, and hierarchize, rather than display itself in its murderous splendor; it does not have to draw the line that separates the enemies of the sovereign from his obedient subjects; it effects distributions around the norm. I do not mean to say that the law fades into the background or that the institutions of justice tend to disappear, but rather that the law operates more and more as a norm, and that the judicial institution is increasingly incorporated into a continuum of apparatuses (medical, administrative, and so on) whose functions are for the most part regulatory. A normalizing society is the historical outcome of a technology of power centered on life. We have entered a phase of juridical regression in comparison with the pre-seventeenth-century societies we are acquainted with; we should not be deceived by all the constitutions framed throughout the world since the French Revolution, the codes written and revised, a whole continual and clamorous legislative activity: these were the forms that made an essentially normalizing power acceptable.

Moreover, against this power that was still new in the nineteenth century, the forces that resisted relied for support on the very thing it invested, that is, on life and man as a living being. Since the last century, the great struggles that have challenged the general system of power were not guided by the belief in a return to former rights, or by the age-old dream of a cycle of time or a Golden Age. One no longer aspired toward the coming of the emperor of the poor, or the kingdom of the latter days, or even the restoration of our imagined ancestral rights; what was demanded and what served as an objective was life, understood as the basic needs, man's concrete essence, the realization

of his potential, a plenitude of the possible. Whether or not it was utopia that was wanted is of little importance; what we have seen has been a very real process of struggle; life as a political object was in a sense taken at face value and turned back against the system that was bent on controlling it. It was life more than the law that became the issue of political struggles, even if the latter were formulated through affirmations concerning rights. The "right" to life, to one's body, to health, to happiness, to the satisfaction of needs, and, beyond all the oppressions or "alienations," the "right" to rediscover what one is and all that one can be, this "right"—which the classical juridical system was utterly incapable of comprehending—was the political response to all these new procedures of power which did not derive, either, from the traditional right of sovereignty.

This is the background that enables us to understand the importance assumed by sex as a political issue. It was at the pivot of the two axes along which developed the entire political technology of life. On the one hand, it was tied to the disciplines of the body: the harnessing, intensification, and distribution of forces, the adjustment and economy of energies. On the other hand, it was applied to the regulation of populations, through all the far-reaching effects of its activity. It fitted in both categories at once, giving rise to infinitesimal surveillances, permanent controls, extremely meticulous orderings of space, indeterminate medical or psychological examinations, to an entire micropower concerned with the body. But it gave rise as well to comprehensive measures, statistical assessments, and interventions aimed at the entire social body or at groups taken as a whole. Sex was a means of access both to the life of the body and the life of the species. It was employed as a standard for the disciplines and as a basis for regulations. This is why in the nineteenth century sexuality was sought out in the smallest details of individual existences; it was tracked down in behavior, pursued in dreams; it was suspected of underlying the least follies; it was traced back into the earliest years of childhood; it became the stamp of individuality—at the same time what enabled one to analyze the latter and what made it possible

to master it. But one also sees it becoming the theme of political operations, economic interventions (through incitements to or curbs on procreation), and ideological campaigns for raising standards of morality and responsibility: it was put forward as the index of a society's strength, revealing of both its political energy and its biological vigor. Spread out from one pole to the other of this technology of sex was a whole series of different tactics that combined in varying proportions the objective of disciplining the body and that of regulating populations.

Hence the importance of the four great lines of attack along which the politics of sex advanced for two centuries. Each one was a way of combining disciplinary techniques with regulative methods. The first two rested on the requirements of regulation, on a whole thematic of the species, descent, and collective welfare, in order to obtain results at the level of discipline; the sexualization of children was accomplished in the form of a campaign for the health of the race (precocious sexuality was presented from the eighteenth century to the end of the nineteenth as an epidemic menace that risked compromising not only the future health of adults but the future of the entire society and species); the hysterization of women, which involved a thorough medicalization of their bodies and their sex, was carried out in the name of the responsibility they owed to the health of their children, the solidity of the family institution, and the safeguarding of society. It was the reverse relationship that applied in the case of birth controls and psychiatrization of perversions: here the intervention was regulatory in nature, but it had to rely on the demand for individual disciplines and constraints (*dressages*). Broadly speaking, at the juncture of the "body" and the "population," sex became a crucial target of a power organized around the management of life rather than the menace of death.

The blood relation long remained an important element in the mechanisms of power, its manifestations, and its rituals. For a society in which the systems of alliance, the political form of the sovereign, the differentiation into orders and castes, and the value of descent lines were predominant; for a society in which famine, epidemics, and violence made death imminent, blood constituted one of the fundamental values. It owed its high value at the same time to its instrumental role (the ability

to shed blood), to the way it functioned in the order of signs (to have a certain blood, to be of the same blood, to be prepared to risk one's blood), and also to its precariousness (easily spilled, subject to drying up, too readily mixed, capable of being quickly corrupted). A society of blood—I was tempted to say, of "sanguinity"—where power spoke *through* blood: the honor of war, the fear of famine, the triumph of death, the sovereign with his sword, executioners, and tortures; blood was a *reality with a symbolic function*. We, on the other hand, are in a society of "sex," or rather, a society "with a sexuality": the mechanisms of power are addressed to the body, to life, to what causes it to proliferate, to what reinforces the species, its stamina, its ability to dominate, or its capacity for being used. Through the themes of health, progeny, race, the future of the species, the vitality of the social body, power spoke of sexuality and to sexuality; the latter was not a mark or a symbol, it was an object and a target. Moreover, its importance was due less to its rarity or its precariousness than to its insistence, its insidious presence, the fact that it was everywhere an object of excitement and fear at the same time. Power delineated it, aroused it, and employed it as the proliferating meaning that had always to be taken control of again lest it escape; it was *an effect with a meaning-value*. I do not mean to say that a substitution of sex for blood was by itself responsible for all the transformations that marked the threshold of our modernity. It is not the soul of two civilizations or the organizing principle of two cultural forms that I am attempting to express; I am looking for the reasons for which sexuality, far from being repressed in the society of that period, on the contrary was constantly aroused. The new procedures of power that were devised during the classical age and employed in the nineteenth century were what caused our societies to go from *a symbolics of blood to an analytics of sexuality*. Clearly, nothing was more on the side of the law, death, transgression, the symbolic, and sovereignty than blood; just as sexuality was on the side of the norm, knowledge, life, meaning, the disciplines, and regulations.

Sade and the first eugenisists were contemporary with this transition from "sanguinity" to "sexuality." But whereas the first dreams of the perfecting of the species inclined the whole

problem toward an extremely exacting administration of sex (the art of determining good marriages, of inducing the desired fertilities, of ensuring the health and longevity of children), and while the new concept of race tended to obliterate the aristocratic particularities of blood, retaining only the controllable effects of sex, Sade carried the exhaustive analysis of sex over into the mechanisms of the old power of sovereignty and endowed it with the ancient but fully maintained prestige of blood; the latter flowed through the whole dimension of pleasure—the blood of torture and absolute power; the blood of the caste, which was respected in itself and which nonetheless was made to flow in the major rituals of parricide and incest; the blood of the people, which was shed unreservedly since the sort that flowed in its veins was not even deserving of a name. In Sade, sex is without any norm or intrinsic rule that might be formulated from its own nature; but it is subject to the unrestricted law of a power which itself knows no other law but its own, if by chance it is at times forced to accept the order of progressions carefully disciplined into successive days, this exercise carries it to a point where it is no longer anything but a unique and naked sovereignty: an unlimited right of all-powerful monstrosity.

While it is true that the analytics of sexuality and the symbolics of blood were grounded at first in two very distinct regimes of power, in actual fact the passage from one to the other did not come about (any more than did these powers themselves) without overlappings, interactions, and echoes. In different ways, the preoccupation with blood and the law has for nearly two centuries haunted the administration of sexuality. Two of these interferences are noteworthy, the one for its historical importance, the other for the problems it poses. Beginning in the second half of the nineteenth century, the thematic of blood was sometimes called on to lend its entire historical weight toward revitalizing the type of political power that was exercised through the devices of sexuality. Racism took shape at this point (racism in its modern, "biologizing," statist form): it was then that a whole politics of settlement (*peuplement*), family, marriage, education, social hierarchization, and property, accompanied by a

long series of permanent interventions at the level of the body, conduct, health, and everyday life, received their color and their justification from the mythical concern with protecting the purity of the blood and ensuring the triumph of the race. Nazism was doubtless the most cunning and the most naive (and the former because of the latter) combination of the fantasies of blood and the paroxysms of a disciplinary power. A eugenic ordering of society, with all that implied in the way of extension and intensification of micropowers, in the guise of an unrestricted state control (*étatisation*), was accompanied by the onerous exaltation of a superior blood; the latter implied both the systematic genocide of others and the risk of exposing oneself to a total sacrifice. It is an irony of history that the Hitlerite politics of sex remained an insignificant practice while the blood myth was transformed into the greatest blood bath in recent memory.

At the opposite extreme, starting from this same end of the nineteenth century, we can trace the theoretical effort to reinscribe the thematic of sexuality in the system of law, the symbolic order, and sovereignty. It is to the political credit of psychoanalysis—or, at least, of what was most coherent in it—that it regarded with suspicion (and this from its inception, that is, from the moment it broke away from the neuropsychiatry of degenerescence) the irrevocably proliferating aspects which might be contained in these power mechanisms aimed at controlling and administering the everyday life of sexuality: whence the Freudian endeavor (out of reaction, no doubt, to the great surge of racism that was contemporary with it) to ground sexuality in the law—the law of alliance, tabooed consanguinity, and the Sovereign-Father—in short, to surround desire with all the trapplings of the old order of power. It was owing to this that psychoanalysis was—in the main, with a few exceptions—in theoretical and practical opposition to fascism. But this position of psychoanalysis was tied to a specific historical conjuncture. And yet, to conceive the category of the sexual in terms of the law, death, blood, and sovereignty—whatever the references to Sade and Bataille, and however one might gauge their "subversive" influence—is in the last analysis a historical "retro-

version." We must conceptualize the deployment of sexuality on the basis of the techniques of power that are contemporary with it. . . .

Notes

¹ Samuel von Pufendorf, *Le Droit de la nature* (French trans. 1734), p. 445.

² "Just as a composite body can have properties not found in any of the simple bodies of which the mixture consists, so a moral body, by virtue of the very union of persons of which it is composed, can have certain rights which none of the individuals could expressly claim and whose exercise is the proper function of leaders alone" (*Ibid.*, p. 452).

The Politics of Health in the Eighteenth Century

(FROM *Power/Knowledge*)

First of all, two preliminary remarks:

1. No doubt it is scarcely fruitful to look for a relation of anteriority or dependence between the two terms of a private, "liberal" medicine, subject to the mechanisms of individual initiative and laws of the market, and a medical politics, drawing support from structures of power and concerning itself with the health of a collectivity. It is somewhat mythical to suppose that Western medicine originated as a collective practice, endowed by magico-religious institutions with its social character and gradually dismantled through the subsequent organization of private clientele.¹ But it is equally inadequate to posit the existence at the historical threshold of modern medicine of a singular, private, individual medical relation, "clinical" in its economic functioning and epistemological form, and to imagine that a series of corrections, adjustments, and constraints gradually came to socialize this relation, causing it to be to some degree taken charge of by the collectivity.

What the eighteenth century shows, in any case, is a double-sided process. The development of a medical market in the form of private clientele; the extension of a network of personnel offering qualified medical attention; the growth of individual and family demand for health care; the emergence of a clinical medicine strongly centered on individual examination, diagnosis, and therapy; the explicitly moral and scientific—and secretly economic—exaltation of "private consultation"; in short, the progressive emplacement of what was to become the great

medical edifice of the nineteenth century cannot be divorced from the concurrent organization of a politics of health, the consideration of disease as a political and economic problem for social collectivities which they must seek to resolve as a matter of overall policy. "Private" and "socialized" medicine, in their reciprocal support and opposition, both derive from a common global strategy. No doubt there is no society which does not practice some kind of "noso-politics": the eighteenth century didn't invent this. But it prescribed new rules, and above all transposed the practice onto an explicit, concerted level of analysis such as had been previously unknown. At this point the age is entered not so much of social medicine as of a considered noso-politics.

2. The center of initiative, organization, and control for this politics should not be located only in the apparatuses of the state. In fact, there were a number of distinct health policies and various different methods for taking charge of medical problems: those of religious groups (the considerable importance, for example, of the Quakers and the various dissenting movements in England); those of charitable and benevolent associations, ranging from the parish *bureaux* to the philanthropic societies, which operated somewhat like organs of the surveillance of one class over those others which, precisely because they were less able to defend themselves, were sources of collective danger; those of the learned societies, the eighteenth-century academies and the early nineteenth-century statistics societies which endeavor to organize a global, quantifiable knowledge of morbid phenomena. Health and sickness, as characteristics of a group, a population, are problematized in the eighteenth century through the initiatives of multiple social instances, in relation to which the state itself plays various different roles. On occasion, it intervenes directly: a policy of free distribution of medicines was pursued in France on a varying scale from Louis XIV to Louis XVI. From time to time it also establishes bodies for purposes of consultation and information (the Prussian Sanitary Collegium dates from 1685; the Royal Society of Medicine was founded in France in 1776). Sometimes the state's projects for authoritarian medical organization are thwarted: the code of health

elaborated by Mai and accepted by the elector palatine in 1800 was never put into effect. Occasionally the state is also the object of solicitations which it resists.

Thus the eighteenth-century problematization of noso-politics does not correlate with a uniform trend of state intervention in the practice of medicine, but rather with the emergence at a multitude of sites in the social body of health and disease as problems requiring some form or other of collective control measures. Rather than being the product of a vertical initiative coming from above, noso-politics in the eighteenth century figures as a problem with a number of different origins and orientations, being the problem of the health of all as a priority for all, the state of health of a population as a general objective of policy.

The most striking trait of this noso-politics, concern with which extends throughout French and indeed European society in the eighteenth century, no doubt consists in the displacement of health problems relative to problems of assistance. Schematically, one can say that up to the end of the seventeenth century, institutions for assistance to the poor serve as the collective means of dealing with disease. Certainly there are exceptions to this: the regulations for times of epidemic, measures taken in plague towns, and the quarantines enforced in certain large ports, all constituted forms of authoritarian medicalization not organically linked to techniques of assistance. But outside these limit cases, medicine understood and practiced as a "service" operated simply as one of the components of "assistance." It was addressed to the category, so important despite the vagueness of its boundaries, of the "sick poor." In economic terms, this medical service was provided mainly thanks to charitable foundations. Institutionally, it was exercised within the framework of lay and religious organizations devoted to a number of ends: distribution of food and clothing, care of abandoned children, projects of elementary education and moral proselytism, provision of workshops and workrooms, and in some cases the surveillance of "unstable" or "troublesome" elements (in the cities, the hospital *bureaux* had a jurisdiction over vagabonds and beggars, and the

parish *bureaux* and charitable societies also very explicitly adopted the role of denouncing "bad subjects"). From a technical point of view, the role of therapeutics in the working of the hospitals in the classical age was limited in extent in comparison with the scale of provision of material assistance, and with the administrative structure. Sickness is only one among a range of factors, including infirmity, old age, inability to find work, and destitution, which compose the figure of the "necessitous pauper" who deserves hospitalization.

The first phenomenon during the eighteenth century which should be noted is the progressive dislocation of these mixed and polyvalent procedures of assistance. This dismantling is carried out, or rather is called for (since it only begins to become effective late in the century), as the upshot of a general reexamination of modes of investment and capitalization. The system of "foundations," which immobilize substantial sums of money and whose revenues serve to support the idle and thus allow them to remain outside the circuits of production, is criticized by economists and administrators. The process of dismemberment is also carried out as a result of a finer grid of observation of the population and the distinctions which this observation aims to draw between the different categories of unfortunates to which charity confusedly addresses itself. In this process of the gradual attenuation of traditional social statuses, the "pauper" is one of the first to be effaced, giving way to a whole series of functional discriminations (the good poor and the bad poor, the willfully idle and the involuntarily unemployed, those who can do some kind of work and those who cannot). An analysis of idleness—and its conditions and effects—tends to replace the somewhat global charitable sacralization of "the poor." This analysis has as its practical objective at best to make poverty useful by fixing it to the apparatus of production, at worst to lighten as much as possible the burden it imposes on the rest of society. The problem is to set the "able-bodied" poor to work and transform them into a useful labor force, but it is also to assure the self-financing by the poor themselves of the cost of their sickness and temporary or permanent incapacitation, and further to render profitable in the short or long term the educating of orphans and foundlings. Thus, a

complete utilitarian decomposition of poverty is marked out and the specific problem of the sickness of the poor begins to figure in the relationship of the imperatives of labor to the needs of production.

But one must also note another process which is more general than the first, and more than its simple elaboration. This is the emergence of the health and physical well-being of the population in general as one of the essential objectives of political power. Here it is not a matter of offering support to a particularly fragile, troubled and troublesome margin of the population, but of how to raise the level of health of the social body as a whole. Different power apparatuses are called upon to take charge of "bodies," not simply so as to exact blood service from them or levy dues, but to help and, if necessary, constrain them to ensure their own good health. The imperative of health: at once the duty of each and the objective of all.

Taking a longer perspective, one could say that from the heart of the Middle Ages power traditionally exercised two great functions: that of war and peace, which it exercised through the hard-won monopoly of arms, and that of the arbitration of lawsuits and punishments of crimes, which it ensured through its control of judicial functions. *Pax et iustitia*. To these functions were added—from the end of the Middle Ages—those of the maintenance of order and the organization of enrichment. Now in the eighteenth century we find a further function emerging, that of the disposition of society as a milieu of physical well-being, health, and optimum longevity. The exercise of these three latter functions—order, enrichment, and health—is assured less through a single apparatus than by an ensemble of multiple regulations and institutions which in the eighteenth century take the generic name of "police." Down to the end of the *ancien régime*, the term "police" does not signify, at least not exclusively, the institution of police in the modern sense; "police" is the ensemble of mechanisms serving to ensure order, the properly channeled growth of wealth and the conditions of preservation of health "in general." Delamare's *Traité* on police, the great charter of police functions in the classical period, is significant in this respect. The eleven headings under which it classifies police activities can readily be distinguished in terms

of three main sets of aims: economic regulation (the circulation of commodities, manufacturing processes, the obligations of tradespeople both to one another and to their clientele), measures of public order (surveillance of dangerous individuals, expulsion of vagabonds and, if necessary, beggars, and the pursuit of criminals), and general rules of hygiene (checks on the quality of foodstuffs sold, the water supply, and the cleanliness of streets).

At the point when the mixed procedures of police are being broken down into these elements and the problem of sickness among the poor is identified in its economic specificity, the health and physical well-being of populations comes to figure as a political objective which the "police" of the social body must ensure along with those of economic regulation and the needs of order. The sudden importance assumed by medicine in the eighteenth century originates at the point of intersection of a new "analytical" economy of assistance with the emergence of a general "police" of health. The new *noso-politics* inscribes the specific question of the sickness of the poor within the general problem of the health of populations, and makes the shift from the narrow context of charitable aid to the more general form of a "medical police," imposing its constraints and dispensing its services. The texts of T. Rau (the *Medizinische Polizeiordnung* of 1764), and above all the great work of J. P. Frank, *System einer medizinische Polizei*, give this transformation its most coherent expression.

What is the basis for this transformation? Broadly, one can say that it has to do with the preservation, upkeep, and conservation of the "labor force." But no doubt the problem is a wider one. It arguably concerns the economic-political effects of the accumulation of men. The great eighteenth-century demographic upswing in Western Europe, the necessity for coordinating and integrating it into the apparatus of production, and the urgency of controlling it with finer and more adequate power mechanisms cause "population," with its numerical variables of space and chronology, longevity and health, to emerge not only as a problem but as an object of surveillance, analysis, intervention, modification, etc. The project of a technology of population begins to be sketched: demographic estimates, the calculation

of the pyramid of ages, different life expectations and levels of mortality, studies of the reciprocal relations of growth of wealth and growth of population, various measures of incitement to marriage and procreation, the development of forms of education and professional training. Within this set of problems, the "body"—the body of individuals and the body of populations—appears as the bearer of new variables, not merely between the scarce and the numerous, the submissive and the restive, rich and poor, healthy and sick, strong and weak, but also between the more or less utilizable, more or less amenable to profitable investment, those with greater or lesser prospects of survival, death, and illness, and with more or less capacity for being usefully trained. The biological traits of a population become relevant factors for economic management, and it becomes necessary to organize around them an apparatus which will ensure not only their subjection but the constant increase of their utility.

This enables us to understand the main characteristics of eighteenth-century *noso-politics* as follows:

1. *The privilege of the child and the medicalization of the family.* The problem of "children" (that is, of their number at birth and the relation of births to mortalities) is now joined by the problem of "childhood" (that is, of survival to adulthood, the physical and economic conditions for this survival, the necessary and sufficient amount of investment for the period of child development to become useful, in brief the organization of this "phase" perceived as being both specific and finalized). It is no longer just a matter of producing an optimum number of children, but one of the correct management of this age of life.

New and highly detailed rules serve to codify relations between adults and children. The relations of filial submission and the system of signs that these entail certainly persist, with few changes. But they are to be henceforth invested by a whole series of obligations imposed on parents and children alike: obligations of a physical kind (care, contact, hygiene, cleanliness, attentive proximity), suckling of children by their mothers, clean clothing, physical exercise to ensure the proper development of the organism: the permanent and exacting corporal relation between adults and their children. The family is no longer to be

just a system of relations inscribed in a social status, a kinship system, a mechanism for the transmission of property. It is to become a dense, saturated, permanent, continuous physical environment which envelops, maintains, and develops the child's body. Hence it assumes a material figure defined within a narrower compass: it organizes itself as the child's immediate environment, tending increasingly to become its basic framework for survival and growth. This leads to an effect of tightening, or at least intensification, of the elements and relations constituting the restricted family (the group of parents and children). It also leads to a certain inversion of axes: the conjugal bond no longer serves only, nor even perhaps primarily, to establish the junction of two lines of descent, but to organize the matrix of the new adult individual. No doubt it still serves to give rise to two lineages and hence produce a descent, but it serves also to produce—under the best possible conditions—a human being who will live to the state of adulthood. The new "conjugal" lies, rather, in the link between parents and children. The family, seen as a narrow, localized pedagogical apparatus, consolidates itself within the interior of the great traditional family-alliance. And at the same time health, and principally the health of children, becomes one of the family's most demanding objectives. The rectangle of parents and children must become a sort of homeostasis of health. At all events, from the eighteenth century onward, the healthy, clean, fit body; a purified, cleansed, aerated domestic space; the medically optimal siting of individuals, places, beds, and utensils; and the interplay of the "cared-for" and the "cared-for" figure among the family's essential laws. And from this period the family becomes the most constant agent of medicalization. From the second half of the eighteenth century, the family is the target for a great enterprise of medical acculturation. The first wave of this offensive bears on care of children, especially babies. Among the principal texts are Audrey's *L'Orthopédie* (1749); Vandermonde's *Essai sur la manière de perfectionner l'espèce humaine* (1756); Cadogan's *An Essay upon Nursing, and the Management of Children, from Their Birth to Three Years of Age* (1748; French translation, 1752); des Essarts's *Traité de l'éducation corporelle en bas âge* (1760); Ballexsert's *Dissertation sur l'éducation physique des enfants* (1762); Raulin's *De la Conser-*

vation des enfants (1768); Nicolas's *Le Cri de la nature en faveur des enfants nouveaux-nés* (1775); Daignan's *Tableau des sociétés de la vie humaine* (1786); Saucerotte's *De la Conservation des enfants* (year IV); W. Buchan's *Advice to Mothers on the Subject of Their Own Health; and on the Means of Promoting the Health, Strength and Beauty of Their Offspring* (1803; French translation, 1804); J. A. Millot's *Le Nestor français* (1807); Laplace Chanvre's *Dissertation sur quelques points de l'éducation physique et morale des enfants* (1813); Letet's *Hygiène des enfants* (1814); and Prérost Leygonie's *Essai sur l'éducation physique des enfants* (1813). This literature gains even further in extension in the nineteenth century with the appearance of a whole series of journals which address themselves directly to the lower classes.

The long campaign of inoculation and vaccination has its place in this movement to organize around the child a system of medical care for which the family is to bear the moral responsibility and at least part of the economic cost. Via different routes, the policy for orphans follows an analogous strategy. Special institutions are opened: the Foundling Hospital, the Enfants Trouvés in Paris; but there is also a system organized for replacing children with nurses or in families, where they can make themselves useful by taking at least a minimal part in domestic life, and where, moreover, they will find a more favorable milieu of development at less cost than in a hospital, where they would be barracked until adolescence.

The medical politics outlined in the eighteenth century in all European countries has as its first effect the organization of the family, or rather the family-children complex, as the first and most important instance for the medicalization of individuals. The family is assigned a linking role between general objectives regarding the good health of the social body and individuals' desire or need for care. This enables a "private" ethic of good health as the reciprocal duty of parents and children to be articulated onto a collective system of hygiene and scientific technique of cure made available to individual and family demand by a professional corps of doctors, qualified and as it were, recommended by the state. The rights and duties of individuals respecting their health and that of others, the market where supply and demand for medical care meet, authoritarian

interventions of power in the order of hygiene and illness accompanied at the same time by the institutionalizing and protection of the private doctor-patient relation, all these features in their multiplicity and coherence characterize the global functioning of the politics of health in the nineteenth century, yet they cannot be properly understood if one abstracts them from this central element formed in the eighteenth century, the medicalized and medicalizing family.

2. *The privilege of hygiene and the function of medicine as an instance of social control.* The old notion of the regime, understood at once as a rule of life and a form of preventive medicine, tends to become enlarged into that of the collective "regime" of a population in general, with the disappearance of the great epidemic tempests, the reduction of the death rate and the extension of the average lifespan and life expectation for every age group as its triple objective. This program of hygiene as a regime of health for populations entails a certain number of authoritarian medical interventions and controls.

First of all, control of the urban space in general: it is this space which constitutes perhaps the most dangerous environment for the population. The disposition of various quarters, their humidity and exposure, the ventilation of the city as a whole, its sewage and drainage systems, the siting of abattoirs and cemeteries, the density of population, all these are decisive factors for the mortality and morbidity of the inhabitants. The city with its principal spatial variables appears as a medicalizable object. Whereas the medical topographies of regions analyze climatic and geological conditions which are outside human control, and can only recommend measures of correction and compensation, the urban topographies outline, in negative at least, the general principles of a concerted urban policy. During the eighteenth century, the idea of the pathogenic city inspired a whole mythology and very real states of popular panic (the Charnel House of the Innocents in Paris was one of these high places of fear); it also gave rise to a medical discourse on urban morbidity and the placing under surveillance of a whole range of urban developments, constructions, and institutions.²

In a more precise and localized fashion, the needs of hygiene

demand an authoritarian medical intervention in what are regarded as the privileged breeding grounds of disease: prisons, ships, harbor installations; the *hospitiaux généraux* where vagabonds, beggars, and invalids mingle together; the hospitals themselves, whose medical staffing is usually inadequate, and which aggravate or complicate the diseases of their patients, to say nothing of their diffusing of pathological germs into the outside world. Thus priority areas of medicalization in the urban environment are isolated and are destined to constitute so many points for the exercise and application of an intensified medical power. Doctors will, moreover, have the task of teaching individuals the basic rules of hygiene which they must respect for the sake of their own health and that of others: hygiene of food and habitat, exhortations to seek treatment in case of illness.

Medicine, as a general technique of health even more than as a service to the sick or an art of cures, assumes an increasingly important place in the administrative system and the machinery of power—a role which is constantly widened and strengthened throughout the eighteenth century. The doctor wins a footing within the different instances of social power. The administration acts as a point of support and sometimes a point of departure for the great medical inquiries into the health of populations, and conversely doctors devote an increasing amount of their activity to tasks, both general and administrative, assigned to them by power. A "medico-administrative" knowledge begins to develop concerning society, its health and sickness, its conditions of life, housing, and habits, which serves as the basic core for the "social economy" and sociology of the nineteenth century. And there is likewise constituted a politico-medical hold on a population hedged in by a whole series of prescriptions relating not only to disease but to general forms of existence and behavior (food and drink, sexuality and fecundity, clothing and the layout of living space).

A number of phenomena dating from the eighteenth century testify to this hygienist interpretation of political and medical questions and the "surplus of power" which it bestows on the doctor: the increasing presence of doctors in the academies and learned societies, the very substantial medical participation in the production of the Encyclopedias, their presence as coun-

selors to representatives of power, the organization of medical societies officially charged with a certain number of administrative responsibilities and qualified to adopt or recommend authoritarian measures, the frequent role of doctors as programmers of a well-ordered society (the doctor as social or political reformer is a frequent figure in the second half of the eighteenth century), and the superabundance of doctors in the Revolutionary Assemblies. The doctor becomes the great advisor and expert, if not in the art of governing, at least in that of observing, correcting, and improving the social "body" and maintaining it in a permanent state of health. And it is the doctor's function as hygienist, rather than his prestige as a therapist, that assures him this politically privileged position in the eighteenth century, prior to his accumulation of economic and social privileges in the nineteenth century.

The challenge to the hospital institution in the eighteenth century can be understood on the basis of these three major phenomena: the emergence of "population," with its bio-medical variables of longevity and health; the organization of the narrowly parental family as a relay in a process of medicalization for which it acts both as the permanent source and the ultimate instrument; and the interlacing of medical and administrative instances in organizing the control of collective hygiene.

The point is that in relation to these new problems the hospital appears in many respects as an obsolete structure. A fragment of space closed in on itself, a place of internment of men and diseases, its ceremonious but inept architecture multiplying the ills in its interior without preventing their outward diffusion, the hospital is more the seat of death for the cities where it is sited than a therapeutic agent for the population as a whole. Not only the difficulty of admission and the stringent conditions imposed on those seeking to enter, but also the incessant disorder of comings and goings, inefficient medical surveillance, and the difficulty of effective treatment cause the hospital to be regarded, from the moment the population in general is specified as the object of medicalization and the overall improvement in its level of health as the objective, as an inadequate

instrument. The hospital is perceived as an area of darkness within the urban space that medicine is called upon to purify. And it acts as a deadweight on the economy since it provides a mode of assistance that can never make possible the diminution of poverty, but at best the survival of certain paupers—and hence their increase in number, the prolongation of their sicknesses, the consolidation of their ill health with all the consequent effects of contagion.

Hence there is the idea, which spreads during the eighteenth century, of a replacement of the hospital by three principal mechanisms. The first of these is the organization of a domestic form of "hospitalization." No doubt this has its risks where epidemics are concerned, but it has economic advantages in that the cost to society of the patient's upkeep is far less as he is fed and cared for at home in the normal manner. The cost to the social body is hardly more than the loss represented by his forced idleness, and then only where he had actually been working. The method also offers medical advantages, in that the family—given a little advice—can attend to the patient's needs in a constant and adjustable manner that would be impossible under hospital administration: each family will be enabled to function as a small, temporary, individual, and inexpensive hospital. But such a procedure requires the replacement of the hospital to be backed by a medical corps dispersed throughout the social body and able to offer treatment either free or as cheaply as possible. A medical staffing of the population, provided it is permanent, flexible, and easy to make use of, should render unnecessary a good many of the traditional hospitals. Lastly, it is possible to envisage the care, consultation, and distribution of medicaments already offered by certain hospitals to outpatients being extended on a general basis, without the need to hold or intern the patients: this is the method of the dispensaries which aim to retain the technical advantages of hospitalization without its medical and economic drawbacks.

These three methods gave rise, especially in the latter half of the eighteenth century, to a whole series of projects and programs. They inspired a number of experiments. In 1769 the Red Lion Square dispensary for poor children was opened in London. Thirty years later, almost every district of the city had

its dispensary and the annual number of those receiving free treatment there was estimated at nearly 50,000. In France it seems that the main effort was toward the improvement, extension, and more or less homogeneous distribution of medical personnel in town and country. The reform of medical and surgical studies (in 1772 and 1784), the requirement of doctors to practice in boroughs and small towns before being admitted to certain of the large cities, the work of investigation and coordination performed by the Royal Society of Medicine, the increasing part occupied by control of health and hygiene in the responsibilities of the intendants, the development of free distribution of medicaments under the authority of doctors designated by the administration, all these measures are related to a health policy resting on the extensive presence of medical personnel in the social body. At the extreme point of these criticisms of the hospital and this project for its replacement, one finds under the Revolution a marked tendency toward "dehospitalization"; this tendency is already perceptible in the reports of the *Comité de mendicité*, with the project to establish a doctor or surgeon in each rural district to care for the indigent, supervise children under assistance, and practice inoculation. It becomes more clearly formulated under the Convention, with the proposal for three doctors in each district to provide the main health care for the whole population. However, the disappearance of the hospital was never more than the vanishing point of a utopian perspective. The real work lay in the effort to elaborate a complex system of functions in which the hospital comes to have a specialized role relative to the family (now considered as the primary instance of health), to the extensive and continuous network of medical personnel, and to the administrative control of the population. It is within this complex framework of policies that the reform of the hospitals is attempted.

The first problem concerns the spatial adaptation of the hospital, and in particular its adaptation to the urban space in which it is located. A series of discussions and conflicts arise between different schemes of implantation, respectively advocating massive hospitals capable of accommodating a sizable population, uniting and thus rendering more coherent the various forms of treatment, or alternatively smaller hospitals, where

patients will receive better attention and the risks of contagion will be less grave. There was another, connected problem: should hospitals be sited outside the cities, where ventilation is better and there is no risk of hospital miasmas being diffused among the population—a solution which in general is linked to the planning of large architectural installations; or should a multiplicity of small hospitals be built at scattered points where they can most easily be reached by the population which is to use them—a solution which often involves the coupling of hospital and dispensary? In either case, the hospital is intended to become a functional element in an urban space where its effects must be subject to measurement and control.

It is also necessary to organize the internal space of the hospital so as to make it medically efficacious, a place no longer of assistance but of therapeutic action. The hospital must function as a "curing machine." First, in a negative manner, all the factors which make the hospital dangerous for its occupants must be suppressed, solving the problem of the circulation of air which must be constantly renewed without its miasmas or mephitic qualities being carried from one patient to another, solving as well the problem of the changing, transport, and laundering of bed linen. Second, in a positive manner, the space of the hospital must be organized according to a concerted therapeutic strategy, through the uninterrupted presence and hierarchical prerogatives of doctors, through systems of observation, notation, and record-taking which make it possible to fix the knowledge of different cases, to follow their particular evolution, and also to globalize the data which bear on the long-term life of a whole population, and finally through substituting better-adapted medical and pharmaceutical cures for the somewhat indiscriminate curative regimes which formed the essential part of traditional nursing. The hospital tends toward becoming an essential element in medical technology, not simply as a place for curing, but as an instrument which, for a certain number of serious cases, makes curing possible.

Consequently it becomes necessary in the hospital to articulate medical knowledge with therapeutic efficiency. In the eighteenth century there emerged specialized hospitals. If there existed certain establishments previously reserved for madmen

or venereal patients, this was less for the sake of any specialized treatment than a measure of exclusion or out of fear. The new "unfunctional" hospital, on the other hand, comes to be organized only from the moment when hospitalization becomes the basis, and sometimes the condition, for a more or less complex therapeutic approach. The Middlesex Hospital, intended for the treatment of smallpox and the practice of vaccination, was opened in London in 1745; the London Fever Hospital dates from 1802, and the Royal Ophthalmic Hospital from 1804. The first Maternity Hospital was opened in London in 1749. In Paris, the Enfants Malades was founded in 1802. One sees the gradual constitution of a hospital system whose therapeutic function is strongly emphasized, designed, on the one hand, to cover with sufficient continuity the urban or rural space whose population it has charge of and, on the other, to articulate itself with medical knowledge and its classifications and techniques.

Lastly, the hospital must serve as the supporting structure for the permanent staffing of the population by medical personnel. Both for economic and medical reasons, it must be possible to make the passage from treatment at home to a hospital regime. By their visiting rounds, country and city doctors must lighten the burden of the hospitals and prevent their overcrowding, and in return the hospital must be accessible to patients on the advice and at the request of their doctors. Moreover, the hospital as a place of accumulation and development of knowledge must provide for the training of doctors for private practice. Clinical teaching in the hospital—the first rudiments of which appear in Holland with Sylvius and then Boerhaave, in Vienna with Van Swieten, and in Edinburgh through the linking of the School of Medicine with the Edinburgh Infirmary—becomes at the end of the eighteenth century the general principle around which the reorganization of medical studies is undertaken. The hospital, a therapeutic instrument for the patients who occupy it, contributes at the same time, through its clinical teaching and the quality of the medical knowledge acquired there, to the improvement of the population's health as a whole.

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The return of the hospitals, and more particularly the projects for their architectural, institutional, and technical reorganization, owed its importance in the eighteenth century to this set of problems relating to the urban space, the mass of the population with its biological characteristics, the close-knit family cell, and the bodies of individuals. It is in the history of these materialities, which are at once political and economic, that the "physical" process of transformation of the hospitals is inscribed.

Notes

¹ Cf. George Rosen, *A History of Public Health* (New York: MD Publications, 1958).

² Cf. for example, J. P. L. Morel, *Dissertation sur les causes qui contribuent le plus à rendre cachectique et rachitique la constitution d'un grand nombre d'enfants de la ville de Lille* (A dissertation on the causes which most contribute to rendering the constitution of a great number of children in the city of Lille cachectic and rachitic), 1812.