

the heavens and the planetary masses, but a Newton of 'small bodies', small movements, small actions; to the man who replied to Monge's remark, 'there was only one world to discover': 'What do I hear? But the world of details, who has never dreamt of that other world, what of that world? I have believed in it ever since I was fifteen. I was concerned with it then, and this memory lives within me, as an obsession never to be abandoned. . . That other world is the most important of all that I flatter myself I have discovered: when I think of it, my heart aches' (these words are attributed to Bonaparte in the Introduction to Saint-Hilaire's *Notions synthétiques et historiques de philosophie naturelle*). Napoleon did not discover this world; but we know that he set out to organize it; and he wished to arrange around him a mechanism of power that would enable him to see the smallest event that occurred in the state he governed; he intended, by means of the rigorous discipline that he imposed, 'to embrace the whole of this vast machine without the slightest detail escaping his attention' (Treilhard, 14).

A meticulous observation of detail, and at the same time a political awareness of these small things, for the control and use of men, emerge through the classical age bearing with them a whole set of techniques, a whole corpus of methods and knowledge, descriptions, plans and data. And from such trifles, no doubt, the man of modern humanism was born.¹

The art of distributions

In the first instance, discipline proceeds from the distribution of individuals in space. To achieve this end, it employs several techniques.

1. Discipline sometimes requires *enclosure*, the specification of a place heterogeneous to all others and closed in upon itself. It is the protected place of disciplinary monotony. There was the great 'confinement' of vagabonds and paupers; there were other more discreet, but insidious and effective ones. There were the *collèges*, or secondary schools: the monastic model was gradually imposed; boarding appeared as the most perfect, if not the most frequent, educational régime; it became obligatory at Louis-le-Grand when, after the departure of the Jesuits, it was turned into a model school (cf. Ariès, 308-13 and Snyders, 35-41). There were the military

barracks: the army, that vagabond mass, has to be held in place; looting and violence must be prevented; the fears of local inhabitants, who do not care for troops passing through their towns, must be calmed; conflicts with the civil authorities must be avoided; desertion must be stopped, expenditure controlled. The ordinance of 1719 envisaged the construction of several hundred barracks, on the model of those already set up in the south of the country; there would be strict confinements: 'The whole will be enclosed by an outer wall ten feet high, which will surround the said houses, at a distance of thirty feet from all the sides'; this will have the effect of maintaining the troops in 'order and discipline, so that an officer will be in a position to answer for them' (*L'Ordonnance militaire*, IXL, 25 September 1719). In 1745, there were barracks in about 320 towns; and it was estimated that the total capacity of the barracks in 1775 was approximately 200,000 men (Daisy, 201-9; an anonymous memoir of 1775, in *Dépôt de la guerre*, 3689, f. 156; Navereau, 132-5). Side by side with the spread of workshops, there also developed great manufacturing spaces, both homogeneous and well defined: first, the combined manufactories, then, in the second half of the eighteenth century, the works or factories proper (the Chaussade ironworks occupied almost the whole of the Médine peninsula, between Nièvre and Loire; in order to set up the Indret factory in 1777, Wilkinson, by means of embankments and dikes, constructed an island on the Loire; Toufait built Le Creusot in the valley of the Charbonnière, which he transformed, and he had workers' accommodation built in the factory itself); it was a change of scale, but it was also a new type of control. The factory was explicitly compared with the monastery, the fortress, a walled town; the guardian 'will open the gates only on the return of the workers, and after the bell that announces the resumption of work has been rung'; a quarter of an hour later no one will be admitted; at the end of the day, the workshops' heads will hand back the keys to the Swiss guard of the factory, who will then open the gates (*Amboise*, f. 12, 1301). The aim is to derive the maximum advantages and to neutralize the inconveniences (thefts, interruptions of work, disturbances and 'cabals'), as the forces of production become more concentrated; to protect materials and tools and to master the labour force: 'The order and inspection that must be maintained require

that all workers be assembled under the same roof, so that the partner who is entrusted with the management of the manufactory may prevent and remedy abuses that may arise among the workers and arrest their progress at the outset' (Dauphin, 199).

2. But the principle of 'enclosure' is neither constant, nor indispensable, nor sufficient in disciplinary machinery. This machinery works space in a much more flexible and detailed way. It does this first of all on the principle of elementary location or *partitioning*. Each individual has his own place; and each place its individual. Avoid distributions in groups; break up collective dispositions; analyse confused, massive or transient pluralities. Disciplinary space tends to be divided into as many sections as there are bodies or elements to be distributed. One must eliminate the effects of imprecise distributions, the uncontrolled disappearance of individuals, their diffuse circulation, their unusable and dangerous coagulation; it was a tactic of anti-desertion, anti-vagabondage, anti-concentration. Its aim was to establish presences and absences, to know where and how to locate individuals, to set up useful communications, to interrupt others, to be able at each moment to supervise the conduct of each individual, to assess it, to judge it, to calculate its qualities or merits. It was a procedure, therefore, aimed at knowing, mastering and using. Discipline organizes an analytical space.

And there, too, it encountered an old architectural and religious method: the monastic cell. Even if the compartments it assigns become purely ideal, the disciplinary space is always, basically, cellular. Solitude was necessary to both body and soul, according to a certain asceticism: they must, at certain moments at least, confront temptation and perhaps the severity of God alone. 'Sleep is the image of death, the dormitory is the image of the sepulchre . . . although the dormitories are shared, the beds are nevertheless arranged in such a way and closed so exactly by means of curtains that the girls may rise and retire without being seen' (*Règlement pour la communauté des filles du Bon Pasteur*, in Delamare, 507). But this is still a very crude form.

3. The rule of *functional sites* would gradually, in the disciplinary institutions, code a space that architecture generally left at the disposal of several different uses. Particular places were defined to correspond not only to the need to supervise, to break dangerous

communications, but also to create a useful space. The process appeared clearly in the hospitals, especially in the military and naval hospitals. In France, it seems that Rochefort served both as experiment and model. A port, and a military port is – with its circulation of goods, men signed up willingly or by force, sailors embarking and disembarking, diseases and epidemics – a place of desertion, smuggling, contagion: it is a crossroads for dangerous mixtures, a meeting-place for forbidden circulations. The naval hospital must therefore treat, but in order to do this it must be a filter, a mechanism that pins down and partitions; it must provide a hold over this whole mobile, swarming mass, by dissipating the confusion of illegality and evil. The medical supervision of diseases and contagions is inseparable from a whole series of other controls: the military control over deserters, fiscal control over commodities, administrative control over remedies, rations, disappearances, cures, deaths, simulations. Hence the need to distribute and partition off space in a rigorous manner. The first steps taken at Rochefort concerned things rather than men, precious commodities, rather than patients. The arrangements of fiscal and economic supervision preceded the techniques of medical observation: placing of medicines under lock and key, recording their use; a little later, a system was worked out to verify the real number of patients, their identity, the units to which they belonged; then one began to regulate their comings and goings; they were forced to remain in their wards; to each bed was attached the name of its occupant; each individual treated was entered in a register that the doctor had to consult during the visit; later came the isolation of contagious patients and separate beds. Gradually, an administrative and political space was articulated upon a therapeutic space; it tended to individualize bodies, diseases, symptoms, lives and deaths; it constituted a real table of juxtaposed and carefully distinct singularities. Out of discipline, a medically useful space was born.

In the factories that appeared at the end of the eighteenth century, the principle of individualizing partitioning became more complicated. It was a question of distributing individuals in a space in which one might isolate them and map them; but also of articulating this distribution on a production machinery that had its own requirements. The distribution of bodies, the spatial arrangement of

production machinery and the different forms of activity in the distribution of 'posts' had to be linked together. The Oberkampff manufactory at Jouy obeyed this principle. It was made up of a series of workshops specified according to each broad type of operation: for the printers, the handlers, the colourists, the women who touched up the design, the engravers, the dyers. The largest of the buildings, built in 1791, by Toussaint Barré, was 110 metres long and had three storeys. The ground floor was devoted mainly to block printing; it contained 132 tables arranged in two rows, the length of the workshop, which had eighty-eight windows; each printer worked at a table with his 'puller', who prepared and spread the colours. There were 264 persons in all. At the end of each table was a sort of rack on which the material that had just been printed was left to dry (Saint-Maur). By walking up and down the central aisle of the workshop, it was possible to carry out a supervision that was both general and individual: to observe the worker's presence and application, and the quality of his work; to compare workers with one another, to classify them according to skill and speed; to follow the successive stages of the production process. All these serializations formed a permanent grid: confusion was eliminated²: that is to say, production was divided up and the labour process was articulated, on the one hand, according to its stages or elementary operations, and, on the other hand, according to the individuals, the particular bodies, that carried it out: each variable of this force – strength, promptness, skill, constancy – would be observed, and therefore characterized, assessed, computed and related to the individual who was its particular agent. Thus, spread out in a perfectly legible way over the whole series of individual bodies, the work force may be analysed in individual units. At the emergence of large-scale industry, one finds, beneath the division of the production process, the individualizing fragmentation of labour power; the distributions of the disciplinary space often assured both.

4. In discipline, the elements are interchangeable, since each is defined by the place it occupies in a series, and by the gap that separates it from the others. The unit is, therefore, neither the territory (unit of domination), nor the place (unit of residence), but the *rank*: the place one occupies in a classification, the point at which a line and a column intersect, the interval in a series of intervals that

one may traverse one after the other. Discipline is an art of rank, a technique for the transformation of arrangements. It individualizes bodies by a location that does not give them a fixed position, but distributes them and circulates them in a network of relations.

Take the example of the 'class'. In the Jesuit colleges, one still found an organization that was at once binary and unified; the classes, which might comprise up to two or three hundred pupils, were subdivided into groups of ten; each of these groups, with its 'decurion', was placed in a camp, Roman or Carthaginian; each 'decury' had its counterpart in the opposing camp. The general form was that of war and rivalry; work, apprenticeship and classification were carried out in the form of the joust, through the confrontation of two armies; the contribution of each pupil was inscribed in this general duel; it contributed to the victory or the defeat of a whole camp; and the pupils were assigned a place that corresponded to the function of each individual and to his value as a combatant in the unitary group of his 'decury' (Rochemonteix, 51ff). It should be observed moreover that this Roman comedy made it possible to link, to the binary exercises of rivalry, a spatial disposition inspired by the legion, with rank, hierarchy, pyramidal supervision. One should not forget that, generally speaking, the Roman model, at the Enlightenment, played a dual role: in its republican aspect, it was the very embodiment of liberty; in its military aspect, it was the ideal schema of discipline. The Rome of the eighteenth century and of the Revolution was the Rome of the Senate, but it was also that of the legion; it was the Rome of the Forum, but it was also that of the camps. Up to the empire, the Roman reference transmitted, somewhat ambiguously, the juridical ideal of citizenship and the technique of disciplinary methods. In any case, the strictly disciplinary element in the ancient fable used by the Jesuit colleges came to dominate the element of joust and mock warfare. Gradually – but especially after 1762 – the educational space unfolds; the class becomes homogeneous, it is no longer made up of individual elements arranged side by side under the master's eye. In the eighteenth century, 'rank' begins to define the great form of distribution of individuals in the educational order: rows or ranks of pupils in the class, corridors, courtyards; rank attributed to each pupil at the end of each task and each examination; the rank he

obtains from week to week, month to month, year to year; an alignment of age groups, one after another; a succession of subjects taught and questions treated, according to an order of increasing difficulty. And, in this ensemble of compulsory alignments, each pupil, according to his age, his performance, his behaviour, occupies sometimes one rank, sometimes another; he moves constantly over a series of compartments – some of these are 'ideal' compartments, marking a hierarchy of knowledge or ability, others express the distribution of values or merits in material terms in the space of the college or classroom. It is a perpetual movement in which individuals replace one another in a space marked off by aligned intervals.

The organization of a serial space was one of the great technical mutations of elementary education. It made it possible to supersede the traditional system (a pupil working for a few minutes with the master, while the rest of the heterogeneous group remained idle and unattended). By assigning individual places it made possible the supervision of each individual and the simultaneous work of all. It organized a new economy of the time of apprenticeship. It made the educational space function like a learning machine, but also as a machine for supervising, hierarchizing, rewarding. Jean-Baptiste de La Salle dreamt of a classroom in which the spatial distribution might provide a whole series of distinctions at once: according to the pupils' progress, worth, character, application, cleanliness and parents' fortune. Thus, the classroom would form a single great table, with many different entries, under the scrupulously 'classificatory' eye of the master: 'In every class there will be places assigned for all the pupils of all the lessons, so that all those attending the same lesson will always occupy the same place. Pupils attending the highest lessons will be placed in the benches closest to the wall, followed by the others according to the order of the lessons moving towards the middle of the classroom. . . Each of the pupils will have his place assigned to him and none of them will leave it or change it except on the order or with the consent of the school inspector.' Things must be so arranged that 'those whose parents are neglectful and verminous must be separated from those who are careful and clean; that an unruly and frivolous pupil should be placed between two who are well behaved and serious, a libertine either alone or between two pious pupils'.³

In organizing 'cells', 'places' and 'ranks', the disciplines create complex spaces that are at once architectural, functional and hierarchical. It is spaces that provide fixed positions and permit circulation; they carve out individual segments and establish operational links; they mark places and indicate values; they guarantee the obedience of individuals, but also a better economy of time and gesture. They are mixed spaces: real because they govern the disposition of buildings, rooms, furniture, but also ideal, because they are projected over this arrangement of characterizations, assessments, hierarchies. The first of the great operations of discipline is, therefore, the constitution of '*tableaux vivants*', which transform the confused, useless or dangerous multitudes into ordered multiplicities. The drawing up of 'tables' was one of the great problems of the scientific, political and economic technology of the eighteenth century: how one was to arrange botanical and zoological gardens, and construct at the same time rational classifications of living beings; how one was to observe, supervise, regularize the circulation of commodities and money and thus build up an economic table that might serve as the principle of the increase of wealth; how one was to inspect men, observe their presence and absence and constitute a general and permanent register of the armed forces; how one was to distribute patients, separate them from one another, divide up the hospital space and make a systematic classification of diseases: these were all twin operations in which the two elements – distribution and analysis, supervision and intelligibility – are inextricably bound up. In the eighteenth century, the table was both a technique of power and a procedure of knowledge. It was a question of organizing the multiple, of providing oneself with an instrument to cover it and to master it; it was a question of imposing upon it an 'order'. Like the army general of whom Guibert spoke, the naturalist, the physician, the economist was 'blinded by the immensity, dazed by the multitude . . . the innumerable combinations that result from the multiplicity of objects, so many concerns together form a burden above his strength. In perfecting itself, in approaching true principles, the science of modern warfare might become simpler and less difficult'; armies 'with simple, similar tactics, capable of being adapted to every movement . . . would be easier to move and lead' (Guibert, xxxvi). Tactics, the spatial ordering of men; taxonomy,

the disciplinary space of natural beings; the economic table, the regulated movement of wealth.

But the table does not have the same function in these different registers. In the order of the economy, it makes possible the measurement of quantities and the analysis of movements. In the form of taxonomy, it has the function of characterizing (and consequently reducing individual singularities) and constituting classes (and therefore of excluding considerations of number). But in the form of the disciplinary distribution, on the other hand, the table has the function of treating multiplicity itself, distributing it and deriving from it as many effects as possible. Whereas natural taxonomy is situated on the axis that links character and category, disciplinary tactics is situated on the axis that links the singular and the multiple. It allows both the characterization of the individual as individual and the ordering of a given multiplicity. It is the first condition for the control and use of an ensemble of distinct elements: the base for a micro-physics of what might be called a 'cellular' power.

The control of activity

1. The *time-table* is an old inheritance. The strict model was no doubt suggested by the monastic communities. It soon spread. Its three great methods – establish rhythms, impose particular occupations, regulate the cycles of repetition – were soon to be found in schools, workshops and hospitals. The new disciplines had no difficulty in taking up their place in the old forms; the schools and poor-houses extended the life and the regularity of the monastic communities to which they were often attached. The rigours of the industrial period long retained a religious air; in the seventeenth century, the regulations of the great manufactories laid down the exercises that would divide up the working day: 'On arrival in the morning, before beginning their work, all persons shall wash their hands, offer up their work to God and make the sign of the cross' (Saint-Maur, article 1); but even in the nineteenth century, when the rural populations were needed in industry, they were sometimes formed into 'congregations', in an attempt to inure them to work in the workshops; the framework of the 'factory-monastery' was

imposed upon the workers. In the Protestant armies of Maurice of Orange and Gustavus Adolphus, military discipline was achieved through a rhythmic of time punctuated by pious exercises; army life, Boussanelle was later to say, should have some of the 'perfections of the cloister itself' (Boussanelle, 2; on the religious character of discipline in the Swedish army, cf. *The Swedish Discipline*, London, 1632). For centuries, the religious orders had been masters of discipline: they were the specialists of time, the great technicians of rhythm and regular activities. But the disciplines altered these methods of temporal regulation from which they derived. They altered them first by refining them. One began to count in quarter hours, in minutes, in seconds. This happened in the army, of course: Guibert systematically implemented the chronometric measurement of shooting that had been suggested earlier by Vauban. In the elementary schools, the division of time became increasingly minute; activities were governed in detail by orders that had to be obeyed immediately: 'At the last stroke of the hour, a pupil will ring the bell, and at the first sound of the bell all the pupils will kneel, with their arms crossed and their eyes lowered. When the prayer has been said, the teacher will strike the signal once to indicate that the pupils should get up, a second time as a sign that they should salute Christ, and a third that they should sit down' (La Salle, *Conduite* . . ., 27-8). In the early nineteenth century, the following time-table was suggested for the *Écoles mutuelles*, or 'mutual improvement schools': 8.45 entrance of the monitor, 8.52 the monitor's summons, 8.56 entrance of the children and prayer, 9.00 the children go to their benches, 9.04 first slate, 9.08 end of dictation, 9.12 second slate, etc. (Tronchot, 221). The gradual extension of the wage-earning class brought with it a more detailed partitioning of time: 'If workers arrive later than a quarter of an hour after the ringing of the bell . . .' (Amboise, article 2); 'if any one of the companions is asked for during work and loses more than five minutes . . .', 'anyone who is not at his work at the correct time . . .' (Oppenheim, article 7-8). But an attempt is also made to assure the quality of the time used: constant supervision, the pressure of supervisors, the elimination of anything that might disturb or distract; it is a question of constituting a totally useful time: 'It is expressly forbidden during work to amuse one's companions by gestures or in any other way, to play

at any game whatsoever, to eat, to sleep, to tell stories and comedies' (Oppenheim, article 16); and even during the meal-break, 'there will be no telling of stories, adventures or other such talk that distracts the workers from their work'; 'it is expressly forbidden for any worker, under any pretext, to bring wine into the manufactory and to drink in the workshops' (*Amboise*, article 4). Time measured and paid must also be a time without impurities or defects; a time of good quality, throughout which the body is constantly applied to its exercise. Precision and application are, with regularity, the fundamental virtues of disciplinary time. But this is not the newest thing about it. Other methods are more characteristic of the disciplines.

2. *The temporal elaboration of the act.* There are, for example, two ways of controlling marching troops. In the early seventeenth century, we have: 'Accustomed soldiers marching in file or in battalion to march to the rhythm of the drum. And to do this, one must begin with the right foot so that the whole troop raises the same foot at the same time' (Montgommery, 86). In the mid-eighteenth century, there are four sorts of steps: 'The length of the the short step will be a foot, that of the ordinary step, the double step and the marching step will be two feet, the whole measured from one heel to the next; as for the duration, that of the small step and the ordinary step will last one second, during which two double steps would be performed; the duration of the marching step will be a little longer than one second. The oblique step will take one second; it will be at most eighteen inches from one heel to the next. . . . The ordinary step will be executed forwards, holding the head up high and the body erect, holding oneself in balance successively on a single leg, and bringing the other forwards, the ham taut, the point of the foot a little turned outwards and low, so that one may without affectation brush the ground on which one must walk and place one's foot, in such a way that each part may come to rest there at the same time without striking the ground' ('Ordonnance du 1^{er} janvier 1766, pour régler l'exercice de l'infanterie'). Between these two instructions, a new set of restraints had been brought into play, another degree of precision in the breakdown of gestures and movements, another way of adjusting the body to temporal imperatives.

What the ordinance of 1766 defines is not a time-table – the general framework for an activity; it is rather a collective and

obligatory rhythm, imposed from the outside; it is a 'programme'; it assures the elaboration of the act itself; it controls its development and its stages from the inside. We have passed from a form of injunction that measured or punctuated gestures to a web that constrains them or sustains them throughout their entire succession. A sort of anatomo-chronological schema of behaviour is defined. The act is broken down into its elements; the position of the body, limbs, articulations is defined; to each movement are assigned a direction, an aptitude, a duration; their order of succession is prescribed. Time penetrates the body and with it all the meticulous controls of power.

3. Hence *the correlation of the body and the gesture*. Disciplinary control does not consist simply in teaching or imposing a series of particular gestures; it imposes the best relation between a gesture and the overall position of the body, which is its condition of efficiency and speed. In the correct use of the body, which makes possible a correct use of time, nothing must remain idle or useless: everything must be called upon to form the support of the act required. A well-disciplined body forms the operational context of the slightest gesture. Good handwriting, for example, presupposes a gymnastics – a whole routine whose rigorous code invests the body in its entirety, from the points of the feet to the tip of the index finger. The pupils must always 'hold their bodies erect, somewhat turned and free on the left side, slightly inclined, so that, with the elbow placed on the table, the chin can be rested upon the hand, unless this were to interfere with the view; the left leg must be somewhat more forward under the table than the right. A distance of two fingers must be left between the body and the table; for not only does one write with more alertness, but nothing is more harmful to the health than to acquire the habit of pressing one's stomach against the table; the part of the left arm from the elbow to the hand must be placed on the table. The right arm must be at a distance from the body of about three fingers and be about five fingers from the table, on which it must rest lightly. The teacher will place the pupils in the posture that they should maintain when writing, and will correct it either by sign or otherwise, when they change this position' (La Salle, *Conduite* . . ., 63–4). A disciplined body is the prerequisite of an efficient gesture.

4. *The body-object articulation*. Discipline defines each of the

relations that the body must have with the object that it manipulates. Between them, it outlines a meticulous meshing. 'Bring the weapon forward. In three stages. Raise the rifle with the right hand, bringing it close to the body so as to hold it perpendicular with the right knee, the end of the barrel at eye level, grasping it by striking it with the right hand, the arm held close to the body at waist height. At the second stage, bring the rifle in front of you with the left hand, the barrel in the middle between the two eyes, vertical, the right hand grasping it at the small of the butt, the arm outstretched, the trigger-guard resting on the first finger, the left hand at the height of the notch, the thumb lying along the barrel against the moulding. At the third stage, let go of the rifle with the left hand, which falls along the thigh, raising the rifle with the right hand, the lock outwards and opposite the chest, the right arm half flexed, the elbow close to the body, the thumb lying against the lock, resting against the first screw, the hammer resting on the first finger, the barrel perpendicular' ('Ordonnance du 1^{er} janvier 1766 . . . , titre XI, article 2'). This is an example of what might be called the instrumental coding of the body. It consists of a breakdown of the total gesture into two parallel series: that of the parts of the body to be used (right hand, left hand, different fingers of the hand, knee, eye, elbow, etc.) and that of the parts of the object manipulated (barrel, notch, hammer, screw, etc.); then the two sets of parts are correlated together according to a number of simple gestures (rest, bend); lastly, it fixes the canonical succession in which each of these correlations occupies a particular place. This obligatory syntax is what the military theoreticians of the eighteenth century called '*manoeuvre*'. The traditional recipe gives place to explicit and obligatory prescriptions. Over the whole surface of contact between the body and the object it handles, power is introduced, fastening them to one another. It constitutes a body-weapon, body-tool, body-machine complex. One is as far as possible from those forms of subjection that demanded of the body only signs or products, forms of expression or the result of labour. The regulation imposed by power is at the same time the law of construction of the operation. Thus disciplinary power appears to have the function not so much of deduction as of synthesis, not so much of exploitation of the product as of coercive link with the apparatus of production.

5. *Exhaustive use.* The principle that underlay the time-table in its traditional form was essentially negative; it was the principle of non-idleness: it was forbidden to waste time, which was counted by God and paid for by men; the time-table was to eliminate the danger of wasting it – a moral offence and economic dishonesty. Discipline, on the other hand, arranges a positive economy; it poses the principle of a theoretically ever-growing use of time: exhaustion rather than use; it is a question of extracting, from time, ever more available moments and, from each moment, ever more useful forces. This means that one must seek to intensify the use of the slightest moment, as if time, in its very fragmentation, were inexhaustible or as if, at least by an ever more detailed internal arrangement, one could tend towards an ideal point at which one maintained maximum speed and maximum efficiency. It was precisely this that was implemented in the celebrated regulations of the Prussian infantry that the whole of Europe imitated after the victories of Frederick II:⁴ the more time is broken down, the more its subdivisions multiply, the better one disarticulates it by deploying its internal elements under a gaze that supervises them, the more one can accelerate an operation, or at least regulate it according to an optimum speed; hence this regulation of the time of an action that was so important in the army and which was to be so throughout the entire technology of human activity: the Prussian regulations of 1743 laid down six stages to bring the weapon to one's foot, four to extend it, thirteen to raise it to the shoulder, etc. By other means, the 'mutual improvement school' was also arranged as a machine to intensify the use of time; its organization made it possible to obviate the linear, successive character of the master's teaching: it regulated the counterpoint of operations performed, at the same moment, by different groups of pupils under the direction of monitors and assistants, so that each passing moment was filled with many different, but ordered activities; and, on the other hand, the rhythm imposed by signals, whistles, orders imposed on everyone temporal norms that were intended both to accelerate the process of learning and to teach speed as a virtue;⁵ 'the sole aim of these commands . . . is to accustom the children to executing well and quickly the same operations, to diminish as far as possible by speed the loss of time caused by moving from one operation to another' (Bernard).

Through this technique of subjection a new object was being formed; slowly, it superseded the mechanical body – the body composed of solids and assigned movements, the image of which had for so long haunted those who dreamt of disciplinary perfection. This new object is the natural body, the bearer of forces and the seat of duration; it is the body susceptible to specified operations, which have their order, their stages, their internal conditions, their constituent elements. In becoming the target for new mechanisms of power, the body is offered up to new forms of knowledge. It is the body of exercise, rather than of speculative physics; a body manipulated by authority, rather than imbued with animal spirits; a body of useful training and not of rational mechanics, but one in which, by virtue of that very fact, a number of natural requirements and functional constraints are beginning to emerge. This is the body that Guibert discovered in his critique of excessively artificial movements. In the exercise that is imposed upon it and which it resists, the body brings out its essential correlations and spontaneously rejects the incompatible: 'On entering most of our training schools, one sees all those unfortunate soldiers in constricting and forced attitudes, one sees all their muscles contracted, the circulation of their blood interrupted. . . If we studied the intention of nature and the construction of the human body, we would find the position and the bearing that nature clearly prescribes for the soldier. The head must be erect, standing out from the shoulders, sitting perpendicularly between them. It must be turned neither to left nor to right, because, in view of the correspondence between the vertebrae of the neck and the shoulder-blade to which they are attached, none of them may move in a circular manner without slightly bringing with it from the same side that it moves one of the shoulders and because, the body no longer being placed squarely, the soldier can no longer walk straight in front of him or serve as a point of alignment. . . Since the hip-bone, which the ordinance indicates as the point against which the butt end should rest, is not situated the same in all men, the rifle must be placed more to the right for some, and more to the left for others. For the same reason of inequality of structure, the trigger-guard is more or less pressed against the body, depending on whether the outer parts of a man's shoulder is more or less fleshy' (Guibert, 21-2).

We have seen how the procedures of disciplinary distribution had their place among the contemporary techniques of classification and tabulation; but also how they introduced into them the specific problem of individuals and multiplicity. Similarly, the disciplinary controls of activity belonged to a whole series of researches, theoretical or practical, into the natural machinery of bodies; but they began to discover in them specific processes; behaviour and its organized requirements gradually replaced the simple physics of movement. The body, required to be docile in its minutest operations, opposes and shows the conditions of functioning proper to an organism. Disciplinary power has as its correlative an individuality that is not only analytical and 'cellular', but also natural and 'organic'.

The organization of geneses

In 1667, the edict that set up the manufactory of the Gobelins envisaged the organization of a school. Sixty scholarship children were to be chosen by the superintendent of royal buildings, entrusted for a time to a master whose task it would be to provide them with 'upbringing and instruction', then apprenticed to the various master tapestry makers of the manufactory (who by virtue of this fact received compensation deducted from the pupils' scholarships); after six years' apprenticeship, four years of service and a qualifying examination, they were given the right to 'set up and run a shop' in any town of the kingdom. We find here the characteristics of guild apprenticeship: the relation of dependence on the master that is both individual and total; the statutory duration of the training, which is concluded by a qualifying examination, but which is not broken down according to a precise programme; an overall exchange between the master who must give his knowledge and the apprentice who must offer his services, his assistance and often some payment. The form of domestic service is mixed with a transference of knowledge.⁶ In 1737, an edict organized a school of drawing for the apprentices of the Gobelins; it was not intended to replace the training given by the master workers, but to complement it. It involved a quite different arrangement of time. Two hours a day, except on Sundays and feast days, the pupils met in the school. A