

The following text was originally published in *Prospects: the quarterly review of comparative education* (Paris, UNESCO: International Bureau of Education), vol. XXIV, no. 1/2, 1994, p. 297–310.

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(1746–1827)

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Pestalozzi is very often mentioned, but very rarely read and both his work and his thought are still very little known: people usually content themselves with such bland imagery as the ‘the milk of human kindness’ or the ‘father of the poor’, whereas Pestalozzi was a thinker and above all a fervent advocate of action. The father of modern educational science, he directly inspired Froebel and Herbart and his name was associated with all the movements for educational reform that roused the passions of the nineteenth century.² Admittedly, however, his written work is not easy to read. Wordy, rough-hewn and written in a medley of styles and tones, it presents a permanent challenge to the Cartesian mind.³

To my mind, Pestalozzi’s relevance today can only be determined by seeking to interpret the salient events in his life as a man and educationist in the light of today’s concerns. This will help the reader rediscover the dreams and illusions that accompanied the emergence of educational thought and that still haunt it today. But, above all, it will show a man who, after the failure of a first attempt to give substance to his philanthropic dream, still found the strength for an effort to gauge the whole historic importance of the concept of education and embody it in an attitude towards teaching that was to become the be-all and end-all of his entire existence.⁴

The seminal experiment: the Neuhof

Everything hinged from the outset on an experiment that ended in disaster. Pestalozzi acquired some land in the Aargau, known as the Neuhof, and in the early 1770s took in poor children from the neighbourhood, setting them to work spinning and weaving cotton, the idea being that what they produced would in the long run pay for their training. For those days, it was a highly original educational enterprise, based on the children managing their own work. For Pestalozzi, it was the ultimate fulfillment of a great dream of his youth.

He began by sharing the questionings and activities of young militants agitating for a new social order. Rejecting the educational system of his native city which, although reputed to be among the best in Europe, he considered excessively subservient to a political regime that reserved basic rights for the inhabitants of the city, while leaving the rural population with none at all, the young Pestalozzi preferred to frequent student clubs where the city’s real problems were freely discussed. He even came to blows with certain corrupt notables and as a result spent the last days of January 1767 in prison.

He had very close contacts with pietist circles in Zurich, in which the emphasis was on practical Christianity, far removed from merely formal religion, the constraints of dogma and concessions to political expediency. He was specially influenced by the achievements of the Anabaptists and the Moravian Brethren who here and there were conducting experiments that combined instruction with agricultural and industrial work, following in the footsteps of Francke whose orphan school in Halle had been widely acclaimed.

But it was from his compatriot Rousseau that the decisive stimulus came. *Émile* was to remain his bedside book throughout his life, and a year before his death he was still praising its author as the educational kingpin of the old world and the new, the man who had freed the mind from its chains, made the child its own creature again and restored education to children and to human nature.⁵

The impetus for the Neuhof project thus came from the great dream of re-creating an independent humanity, far from the civilization of the city. Pestalozzi was to make himself a poor man among the poor, seeking to make the latter realize that their very condition contained the key to their liberation: in this instance the industrial wage, since the spread of cotton spinning and weaving in rural areas offered peasant families a stable means of subsistence such as had never been guaranteed by nature. However, they still had to learn how to make good use of this new source of well-being and, now that the link with nature had been broken, how to face up to the human implications of their emancipation. The Neuhof thus set out to achieve a dual objective: to introduce children to economic realities and at the same time to help each of them to develop his own independent personality within a free and responsible society.

Pestalozzi's experiment in teaching through work soon encountered insurmountable obstacles and had to be adjudged bankrupt in 1780. The blame is usually laid on external factors but that is to ignore the fact that Pestalozzi himself constantly assumed the blame for his first failure, and to lose sight of an important key to his subsequent development which, in the period that included the *Inquiries*, published in 1797, the preparation of his *Theoretical and Practical Methods* and the crowning achievement of Yverdon, can be interpreted as an effort to overcome the inconsistencies that had led to the collapse of the Neuhof experiment. Indeed, most of the problems that were subsequently to bedevil the 'new education' were already found in that experiment, especially some of its most remarkable components, those connected with industrial work.⁶

The whole undertaking was based on social work, seen as the decisive means of preventing alienation in the educational process: by financing their training with their own earnings, the children would be under no obligation to anyone. In practice, however, Pestalozzi soon realized that this philanthropic view of work had also to take into account a socio-economic environment which places such an onus of profitability on a small enterprise that its educational objectives are ultimately submerged. As for the idea that work comes naturally to man, Pestalozzi began to have second thoughts about this also when he overheard the children regretting the days when they were free to roam around the countryside.

He was banking on his boarders' interest in an experiment based on the welfare of the individual and of the group, but he rapidly had to concede that interest is always relative and firmly rooted in selfish desires. For instance, he was unable to prevent parents from turning up at any moment to take away their child, now reinvigorated, well-clad and, above all, capable of providing the family with an income that was in no danger of being diverted into another's pocket.

Pestalozzi thus found himself with his institution in an untenable position: although genuinely concerned to provide each child with the means of attaining independence, he was constantly compelled to subject these same children to the dictates of profitability, and his philanthropic homilies, touching on every chord of morality and religion, were ultimately perceived as intolerable blackmail to increase productivity. As a result, the most generous of men, who had committed his whole fortune to the experiment, found himself accused, by those whom it was supposed to benefit, of seeking above all to serve his own self-interest.

Pestalozzi's basic objective was, as he wrote in his 1774 diary on the education of his son Jacob, 'to join together again what Rousseau had rent asunder': freedom and constraint, natural desire and the rule of law wanted by all and for all. But this same Rousseau had said that this ideal union was bound to break down at the first attempt to put it into practice.

Pestalozzi's failure bore out the paradox described in Book One of *Émile*, namely that the education of the individual (who must be free) and that of the citizen (who must be of use) can no

longer be merged in a single project. Of all Rousseau's more or less devoted disciples, he at least had the merit of trying to put *Émile* into practice in all its paradoxical vigour, putting himself in a position when the time came to move beyond the fruitful contradictions of Rousseau's work.

Pestalozzi was thus obliged to look on helplessly as his experiment foundered in a sea of selfishness. However, far from giving up his basic project and docilely submitting to conventional wisdom, he made a remarkable effort, in the teeth of all opposition, to anchor this resolute desire for independence in that very social reality that had at first rejected him, a procedure that was to prompt him to take stock still more lucidly of the scope of the act of educating, of the value of education as an activity within a society which did not know where it wanted to go.

The teacher as educator

The period between the failure of the Neuhof experiment (1780) and the new experiment in Stans (1799) is usually treated rather cavalierly by analysts of Pestalozzi's work. The fact is that it saw a decisive change in his whole intellectual and practical approach, which was to bring forth from the ruins of his first experience a new type of man with a new self-awareness—the educator.

The idea gradually takes root in the experience of its proponent. It is true that the Neuhof débâcle detracted from his reputation for some time among serious practitioners, but the school which he invented in his novel *Leonard and Gertrude*, written in the 1780s and revised in the period 1790–92, was in both versions a kind of simulated experience.⁷ Another experience was the dramatic fate of his son Jacob, whom he had tried in the Neuhof to make the historical personification of *Émile* and who after the collapse of the institute had drifted away from him, but reappeared one day in 1787, a nervous wreck and a victim of Rousseau's paradox. Yet another experience was the great social upheaval of 1789, a macrocosmic replica of what he had hoped to do in the Neuhof; his being made in August 1792 an honorary citizen of the French Republic, his inability to secure a hearing for his opinions on education and his disappointment at seeing self-seeking run riot among democrats all provided a background for a period of intensive clarification culminating in the major theoretical treatise of 1797: *My Inquiries into the Course of Nature in the Development of Mankind*.

It is not easy to sum up in a few lines this swirling maelstrom of thoughts. Fortunately, there is an extant letter, dated 1 October 1793, from Pestalozzi to his then confidant Nicolovius, in which he briefly describes in the light of past and present events the way he is evolving.⁸ He reveals that, deep down, both his thoughts and his actions have been torn in two opposite directions. First, he relates, he was the victim of an 'educational dream', based on 'economic mistakes' and deriving essentially from a grave 'error' of judgement with respect to human nature. That was precisely what went wrong at the Neuhof: a naïve faith in the miracle of industry and in man's ability to bring it spontaneously under control; a deep-seated belief in the natural freedom of the children of God and in the virtues of an education that merely seconded natural tendencies. In very interesting fashion he relates this first mistake to a second which totally absorbed him during the subsequent period. With a passionate determination to plumb the depths of the human reality that had got the better of his great idea, he set to work on a scientific approach to education. This approach is illustrated by the tables of day-to-day observations and the arithmetic of types of behaviour that he advises the tutor Petersen to use and himself directs. It may also be seen in the attitude of the schoolmaster Gluphi who, between the first and second versions of the novel, becomes more and more concerned with getting to know men as they are and, as a practical layman, leaves it to the clergyman to bask in dreams of humanity.

These two views of man are associated with two educational projects which Pestalozzi had vainly attempted to combine in the Neuhof: achievement of the purest possible inner dignity of man on the one hand and on the other effective training for the basic needs of his life on earth.

The new departure in Pestalozzi's thought in the 1790s is his realization that these two objectives are rooted in the same illusion—claiming to be able to determine *a priori*, as though it were possible to see things through God's eyes, man's 'basic needs' in this world and the criteria defining his 'inner dignity' in the other. At a deeper level, this means claiming to delimit human freedom both in its internal dimension and in its external expression, while the autonomous development of this freedom constitutes the best prospect for education.

If there exists a type of man to be fashioned, even under the banner of freedom, education can only serve an ancillary purpose. Pestalozzi thus refuses education for reproduction of an ideal or real world: he perceives it as a form of action which allows each person to recognize his own individuality and made a 'creative work of himself'.

Education thus finds its meaning in the project to achieve individual autonomy. But Pestalozzi makes a point of stressing that in substance this term, dear to the hearts of German idealists, amounts to something more than a new humanist concept under the cover of which human dignity would continue to be flouted. As far as the author of the *Inquiries* is concerned, autonomy is real only to the extent that it never stops being brought into being by those concerned.

A number of basic implications for Pestalozzi's thought and activities emerge from the 'master-truth' formulated in the *Inquiries*.

Politics and religion, in the throes of an endless conflict between protecting the dignity of the individual and society's inevitable encroachments on it, can only resolve that conflict through educational work. Only to the extent that legislation is practised as a form of education will statesmen succeed both in preventing social upheavals, which become ever more threatening as selfish appetites are whetted, and in giving expression to the indispensable general will that is as close as possible to the will of every individual. Religion, for its part, abandoning once and for all its claim to dominate both flesh and spirit, will revert to its role as the 'salt of the earth', an earth in which, however, to quote from the letter to Nicolovius, 'gold and stones and sand and pearls have their own value, independently of the salt'. The educationist's approach thus lessens the conflict between politics and religion, relating each to its own sphere.

At the same time, Pestalozzi was now in a position to understand the mistake he had made in the Neuhof. In trying to play two games at once, combining economic rationalism with full human development, he had placed himself, all unawares, in the centre of the storm that was raging in the society of his day. Neither a tough businessman nor a benevolent father of the people, he was from now on to play the role of educator, aloof at once from the claims of society and from the desires of those concerned, seeking to bring the two extremes closer together by implanting in each individual a spirit of freedom in autonomy, to a freedom involved in society through the learning of a trade and at the same time striving to achieve self-fulfillment in the process. Education thus offered a solution to Rousseau's paradox, which held that it was impossible to educate natural man and the citizen simultaneously.

In this way Pestalozzi laid the foundations for a place which was to be set apart from both the family, always preoccupied to some extent with its private interests, and civil society, invariably more concerned with the inhuman demands of economic rationalism, a place which would not only make it easier for the child to pass from one domain to another but also help to forge the freedom based on autonomy that neither nature nor law alone could guarantee. That special place was the school. The ideal, of course, would be for parents to become educators, on the same basis as the architects of the common weal; but the evolution of the family being what it is, the school, as an educational centre, must play an increasingly important role at the heart of civilized society.⁹

The school can never really accomplish this task unless it consents to educate in the full meaning of the term. According to Pestalozzi's definition, this will involve applying a particular system that does not merely transmit to the young the knowledge that civilization has already accumulated but is conceived in such a way as to make them able to build up their own freedom as autonomous beings. Neither a mere extension of the family system nor a centre for reproducing the

social order, the school will create its own order through educational activity—which is the whole point of the Method.

However, the most important consequence of the process of reflection that culminated in the *Inquiries* of 1797—a result that Pestalozzi does not specifically formulate but which underlies all his subsequent work—was that he had now taken up a position in which he could understand the way the child really develops. The Neuhof had used the child to fulfil the last adult dream—that of combining a perfect integration in society while maintaining a natural innocence. By making these ideals relative instead of absolute, Pestalozzi was able to apprehend the essential nature of the child, at the point where instinctual desire comes up against society's demand for rationality, in the very process whereby the child fashions himself through that conflict continuously experienced and continuously resolved. More than that, it is the supposedly established human social order that is destined to be regenerated through the child and through the way in which, by promoting the development of the child as a free and autonomous being, it finds itself with infinite vistas of freedom before it. Education is the youth to which mankind eternally aspires: 'Nature has done its work: you must now begin to do yours!'¹⁰

The method and its spirit

The *Inquiries* of 1797 were a call to action and the political upheavals in Switzerland in 1798 meant that the 'people's educator' once again had the benefit of a fair wind. First came the Stans experiment, launched in 1799 and swept away by the war after only a few months. It was followed by the establishment of a new institute of Burgdorf, which did not survive the fall of the Helvetic Republic in 1803. Pestalozzi was finally called to Yverdon where, on 1 January 1805, he opened an educational establishment in the château that rapidly expanded and became famous throughout Europe. People came from all sides to observe this new educational wonder and trainee teachers arrived in waves (Prussian, French, English) to be instructed in the 'Pestalozzi Method'.

The Method is certainly the educational project that takes in all Pestalozzi's work in these three institutes. Started in practice at Stans, its basic principles were to be set out in the work, *How Gertrude teaches her Children*, published in 1801, and its various elements were constantly being further developed during the experiments at Burgdorf and Yverdon.¹¹

The question of the originality of the Pestalozzi Method (Herbart's expression) is often posed. If the term is taken to refer to teaching materials and methods, a disappointment is in store: visitors to the Yverdon Institute looked in vain for the kind of 'teacher's gimmicks' that might be adopted in their own teaching practice. As far as teaching techniques are concerned, it might well be said that Pestalozzi invented nothing, not even the slate, and that he borrowed what was useful from all and sundry. It should be noted that far from being developed in an educational desert his experiment formed part of a widespread movement to fashion a new education that involved even the humblest village clergyman. Moreover, Pestalozzi himself admitted that he had been completely mistaken in some of his techniques, especially for learning languages, and he had no hesitation in introducing radical changes in a teaching method at any moment. In short, it was not in its material aspect that the originality of the Method lay.

And yet originality there was, as demonstrated by the way in which almost all practical educationists in the nineteenth and twentieth centuries were to hark back to it as to a source and refer to it constantly in spite of all their difficulties and failures.

The originality of the Pestalozzi Method may be said to lie basically in its spirit. Its merit consists in the fact that, whereas virtually all his avowed or unavowed disciples have regularly allowed their intentions to be submerged in a body of knowledge, a technique or an *a priori* conception of man, and have as regularly protested that what they had wanted to achieve should not be confused with what they actually had achieved, Pestalozzi himself knew that the Method and

its components should never be more than mere instruments in the hands of the educator, helping him to produce something that was not present in the Method but proved quite different in nature from the Method's nuts and bolts. That 'something' was freedom with autonomy.

The Method is certainly a necessary instrument. It is important to observe the nature of children, to deduce the laws governing their development, to create an environment conducive to that development, to take expressly into account the social dimension of the educational relationship and to make a child's capacity for action effective: all these things were to be further developed and technically improved by Makarenko, Montessori, Freinet and Piaget. The basic aim was to submit to unremitting scrutiny the way in which human nature functions in its various manifestations: without knowledge of that nature, no power could be exercised over it.

It is a mistake, however, to imagine that knowledge is liberating in itself: it is a necessary but not a sufficient means. The Method, with all its useful knowledge of children, can serve as an instrument of subjection as well as of liberation. To ensure that it liberates, it is necessary to devise a specific plan of action that will bring to bear the Method's techniques in such a way that they really do generate freedom in autonomy. That is where educational work really begins and where the spirit rather than the letter of the Method comes into play, a spirit in which techniques are used only to produce the contrary of a technical result. As Pestalozzi said in 1826, 'Examine everything, keep what is good and if something better has come to fruition in your own minds, add it in truth and love to what I am trying to give you in truth and love in these pages.'¹²

Obviously practice is essential and refers to an attitude; it is impossible to reduce that attitude to theoretical terms without running the risk of killing the very thing that the method and the process of applying it are supposed to bring into existence and nurture. There is a limit, continues Pestalozzi, beyond which the process must be turned on its head in order to leave the initiative to freedom and autonomy:

Anyone who adopts the Method—child, adolescent, man or woman—will always, in practice, come to a point where very special demands will be made on his individuality: by seizing that opportunity and exploiting it, he will most certainly bring into play powers and resources that will enable him largely to dispense with the assistance and support in his education that will still be indispensable to others, and he will make himself ready to follow up and complete the remaining portion of his education, in a self-assured and independent manner. Were it otherwise, my institute would collapse, my whole enterprise would have failed.¹³

If it were necessary, however, to provide practical educationists with some idea of how the spirit of the Method was put into practice in Pestalozzi's institutes, a good beginning would be to study the way in which the three elements—heart, head and hand—form the core of the process. It is not a question here of three 'parts' of man or even of three 'faculties' but rather of three different ways of looking at this same human species in its quest for autonomy. Pestalozzi uses the word 'head' to designate man's ability to detach himself through reflection from the world and his confused impressions thereof by developing concepts and ideas. However, as an individual, man remains situated or even completely immersed in a world that through the experience he undergoes makes constant demands on his sensitivity and brings him closer to his fellow men in the struggle to control nature through work: this is the domain of the heart. Acted upon, therefore, by what exists and challenged by what ought to be, man has no alternative but to use this continuous conflict which he faces *faire and square* in order to fashion his own being: that is the work of the hand.

These three elements thus act together to bring out the drive for autonomous existence in each of the persons concerned: the part played by reason stands security for the universality of human nature, the part played by sensitivity bears witness to everyone's deep-seated individuality, while the conflict between the two releases a specifically human capacity for developing a line of conduct that will produce an autonomous personality. It should be noted, in addition, that the whole of this process evolves within the framework of society, in so far as it is society that shapes human reasoning and is also the source of the basic dissatisfaction of the individuals concerned.

The schoolteacher and, before him, the father and mother, provided they play the role of educators, occupy a special position with respect to the encounter between the child's instinctual desires and the demands society makes on him. They have the power, during this decisive period, either to further the development of the power of autonomy or to cripple it, perhaps for a lifetime. Such is the awesome moral responsibility of the educator.

A decisive factor in the exercise of this responsibility is the extent to which the educator, regardless of place and time or of the subject being taught, is able to keep these three components of the Method in equilibrium. In other words, it is not sufficient in an educational establishment to divide up the subjects harmoniously between intellectual, artistic and technical activities. Each teacher should also strive to bring into play in every educational activity all three elements involved in developing the child's capacity to act for himself: the physical-education instructor will pay attention to the child's intellectual grasp of the exercises he performs and to their impact on his senses; the mathematics teacher will take care not to lose sight of his subject's relevance to the children's everyday experience but to provide an opportunity for them to apply mathematics on their own account at some stage in the educational process, etc. Pestalozzi never tires of stressing that this balance is never definitively established and may be disturbed at any moment to give undue advantage to one of the three 'animalities': head, heart or hand.

This analysis applies not only to what is required from education, such as knowledge, *savoir-faire* and receptivity, but also and above all to the functioning of the institutions, lying between the warmth of the family circle and the impersonal state, which is responsible for establishing self-determining freedom in a living, carefully considered and practical way. Instead of cradling children in the illusion of immediate democracy, as he had done in the Neuhof, from Stans onwards, Pestalozzi set about establishing a human social order which came as close as possible to fulfilling the desires of the individual and catering to the interests of the group, while ceaselessly striving to surpass itself in action: the children at Stans, although extremely poor themselves, took pains to make room for those even poorer.¹⁴

The various structures of the educational system must therefore be organized in such a way as to enable the educator, in view of the task that he is called upon to fulfil, to work responsibly and autonomously in an atmosphere of freedom. Each part of the institutional machinery should serve the project that sets educational action apart from other human activities, a project intended basically for a human society coming into being against a background of autonomy within the teacher-student relationship.

The last discussion: educational theory and practice

Pestalozzi's contemporary relevance is assessed in terms of his mode of thought concerning the conflict between the school's function of integrating students into society and its duty to fashion individuals who can live in freedom: Durkheim and Illich are thus both dismissed from the suit. The advocates of learning-through-living will still be able, with Pestalozzi, to take the measure of the obstacles that continue to thwart their experiments. On the other hand, those who would like to use the difficulties encountered in such previous trials as an argument in favour of restoring the old humanism surrounding the 'idea of education' will also go home empty-handed. Pestalozzi answers categorically in the negative through his relationship with the clergyman Niederer, initially his closest collaborator in Yverdon, soon afterwards his adversary and finally his sworn enemy, bent on destroying a project which refused to conform to his ideas.

The controversy that developed in Yverdon to the extent of once more disrupting the experiment is too readily ascribed to a personal quarrel and a conflict of temperaments. Actually, however, the crux of the matter lay in a fundamental issue that is still hotly debated in education: the relationship between theory and practice. If the educator, unlike the philosopher or the scientist, is, according to Hameline's definition, a practitioner in search of a practicable theory of what he is

practising, Pestalozzi may be seen as the personification of that definition. At Neuhof, he was a practitioner in the full meaning of the word, out to achieve unadulterated freedom in action. The *Inquiries* of 1797 may be viewed as the culmination of a long process during which Pestalozzi worked out the theory of his educational practice, dismissing both the ineffectual wordspinning of the philosophers and the sterilizing approach of the 'science of man'.

It has been seen, however, that although the process of reflection in the *Inquiries* called for practical application, theory and practice still remained at odds. The Method set out to be a practicable theory of the educational practice developed at Stans, Burgdorf and Yverdon, and its underlying objective of individual autonomy need not seek justification outside itself. That was to be the mistake made by Niederer who, steeped in the philosophy of Fichte and Schelling and playing Plato to the Socrates of education, set out to convert into theory the experiment taking place under his eyes. Pestalozzi, aware of the need for some such elucidation, went along with his collaborator for a time, but soon began to feel that what was emerging was more and more alien to his deepest aspirations. In the end he violently rejected Niederer's theory and his dogmatic hold on the institute.

Pestalozzi's basic objection to this theory was that by converting the Method's underlying objective of freedom into a system it actually made it impracticable. In taking over the management of the institute, Niederer had indeed inspired a practical approach, but one which soon evolved at all levels in a way that threatened to defeat its own end: the attainment of freedom in one and all. In concrete terms, the teachers were more than ready to spend their time in seminars on 'liberty', 'the powers of the autonomous strength of the child' or 'the Christian approach to education', but spent less and less time on the only individuals who could give practical meaning to those fine ideas: the children present, the day-to-day realities of the institute, the small details that built up the strength in everyone to lead an autonomous life. Pestalozzi was thus faced with a general exodus of the teaching staff, and hence of the children, when it came to shouldering practical responsibilities: it is not surprising that a man who had linked education to man's moral designs, as reflected in his ability to engage in autonomous action, should have considered unbearable this distortion of his original aim and preferred to close down his institute than give in on its essential principles. Back in the peace of the Neuhof, his reflections led him to perceive a basic educational truth that became the leitmotif of his educational testament, *Swan song*.¹⁵

This truth (and there should be no hesitation in calling it the 'Pestalozzi principle') may be stated as follows: the act of teaching only takes on and keeps its meaning in so far as a distinction is drawn and maintained between the general laws of development of human nature, in its three dimensions of head, heart and hand, and the way in which they are applied, especially in practical situations and the vicissitudes of daily life.

At first glance, this principle may seem disconcertingly trite: anyone who thinks at all is aware of the gap between ideas and practical realities. But to see educators straining to reconcile in their teaching activities the theory they have in their head with the sentient being in their care, to witness their crushing failures and the invariable compulsion in the end to live out their utopias on the fringes of society, is to be ultimately convinced that the author of the *Swan Song* succeeded in solving one of the basic problems of teaching: the teacher cannot hope to accomplish his task unless he can keep a distance between the two extremes of intelligence, with its tendency to generalize, and sensitivity, with its tendency to particularize, and between them both and himself. Freedom in autonomy can only really be built up in children if the teacher avoids losing himself in the airy realms of ineffectual theory or entangling himself in an intricate web of conflicting interests. This urge to draw the distinction is so strong that the *Swan Song*, which claims to bring to light the essence of elementary training, is an invitation to every individual to assume responsibility for his actions and to have no scruples about creating, if need be, other means and other techniques, provided that he does so 'in truth and in love', that is to say, out of a desire to surround himself with other fully autonomous forces.¹⁶

Pestalozzi's approach is thus most deeply relevant in his so far unsurpassed reconciliation of theory and practice. And if education has a chance of developing as an active process in which practice, scientific research theory are mutually enriching (G. Mialaret), it may be asserted that Pestalozzi succeeded in consummating this triple alliance.

Pestalozzi was therefore in a position to act on the specific nature of the child. By breaking the natural continuity between the theoretical and practical approaches to educational questions, Pestalozzi also inactivated the mechanism that had for centuries been turning the child into a docile instrument for testing the validity of preconceived ideas. By leaving a yawning gap between theory and practice, the author of the *Swan Song* released in the heart of the child the force that would enable him to fashion himself and at the same time laid the basis of scientific research specifically concerned with the art of teaching. Education is certainly a human study but it falls into a different category from the others: its dialectical relationship with practice, out of sheer respect for emerging freedom, makes it challenge the hypothesis-deduction approach adopted by the other human studies.

Pestalozzi leaves it to the teacher to experience and investigate the contradiction described at length in the *Swan song*. The modern reader would no doubt have preferred him to pursue his thinking to a real conclusion, providing a really 'practicable theory of his practice'. His great weakness lies assuredly in the fact that he was never able to detach his work entirely from himself, his life and his experiences. However, that very weakness becomes a source of strength in the light of what had constantly been his aim from the outset: the achievement of freedom in autonomy for one and all.

Notes

1. Michel Soëtard (France). Ph.D. in arts and human sciences. Professor of the history of educational thought and educational philosophy at the Institute of Educational Sciences, Université Catholique de l'Ouest, Angers. Director of research at the University of Lumière, Lyon II. Author of *Pestalozzi ou la naissance de l'éducateur* [Pestalozzi or the birth of the educator] (1981), and of books on *Pestalozzi* (1987), *Pousseau* (1988), and *Fröbel* (1990). He has been involved in the preparation of several books and dictionaries, and has contributed numerous articles to French, German, Italian and Swiss periodicals on the history of education and on present day problems. Invited professor at the universities of Würzburg and Padua, Member of the Council of the World Association for Educational Research (WAER) and of the Executive Committee of the Institut pour la formation européenne (ISFE), and secretary-general of the Association française d'éducation comparée (AFEC).
2. The Centre de Documentation et de Recherche Pestalozzi, CP 138, 1400 Yverdon; the journal *Pestalozzianum* published in Zurich (Beckenhofstrasse 31-33) regularly provides information on publications concerning Pestalozzi.
3. The only work of reference available at present is the critical edition of the works and letters: *Pestalozzi, Sämtliche Werke (SW)*, launched in 1972 by A. Buchenau, E. Spranger and G. Stettbacher and in course of completion under the direction of E. Dejung, twenty-eight volumes published to date by W. de Gruyter (Berlin) and subsequently by Orell Füssli (Zurich). F. Buisson's *Dictionnaire* contained important articles on Pestalozzi, his experiments and his principal assistants; in 1890 J. Guillaume published his *Étude biographique de Pestalozzi* which was remarkable for its time, and Darin's translation of *Wie Gertrud ihre Kinder lehrt (Comment Gertrude instruit ses enfants)* was a success at the beginning of this century. The best biography of Pestalozzi (in English and German) is still that of K. Silber: *Pestalozzi: The Man and His Work (Johann Heinrich Pestalozzi. Der Mensch und sein Werk)* published in 1957. Two other useful works may be mentioned: J. Cornaz-Besson, *Qui êtes-vous, Monsieur Pestalozzi?*, Yverdon, 1977; and G. Piaton, *Pestalozzi*, Privat, 1982.
4. The exposition that follows is based essentially on the findings of the author's study: *Pestalozzi ou la naissance de l'éducateur. Étude sur l'évolution de la pensée et de l'action du pédagogue suisse (1746-1827)*, Berne, p. Lang, Publications Universitaires Européennes, 1981, p. 671
5. 'Méthode théorique et pratique' (text published in French by Pestalozzi), *SW*, XXVIII, 1826, p. 319.
6. See Pistrak, *Les problèmes fondamentaux de l'école du travail*, Paris, Desclée de Brouwer, 1973.
7. A French translation of the first version is available from Éditions La Baconnière, Boudry (Switzerland).

8. SB, III, p. 292–302.
9. The association of Pestalozzi's name with family education, in particular with education by the mother, is an inadequate analysis of Pestalozzi's writings and the development of his thought. It is indeed true to say that he was fighting against the reality of the family in crisis and that education and educational establishments are gradually assigned the role in his work of offsetting the inevitable break-up of the primary natural grouping: the mother is called upon, partly against her will, to become an educator.
10. SW, XII, p. 125.
11. The author is preparing a new French translation, with an introduction and notes, of Pestalozzi's fundamental educational work: *Comment Gertrude instruit ses enfants* and the *Lettre de Stans*. For an overall introduction to the Method, reference may be made to the text which Pestalozzi himself published in French in 1826: 'Méthode théorique et pratique de Pestalozzi pour l'éducation et l'instruction élémentaire', SW, XXVIII, p. 287–319.
12. SW, XXVIII, p. 57 (the La Baconnière translation).
13. 'Geist und Herz in der Methode', SW, XVIII, p. 35.
14. SW, XIII, p. 1–32.
15. SW, XXVIII, p. 53–286 (the La Baconnière translation).
16. *ibid.*, p. 57.

I. Bibliographie des œuvres de Pestalozzi

- Le texte de référence est désormais celui de l'Édition Critique des œuvres et des lettres : a) *Pestalozzi Sämtliche Werke*, fondée en 1927 par A. Buchenau, E. Spranger et H. Stettbacher, poursuivie par E. Dejung, et en cours d'achèvement par les soins de la *Forshungsstelle* du Pestalozzianum de Zurich (Beckenhofstrasse 31–33)–28 volumes parus à ce jour chez W. de Gruyter (Berlin), puis chez Orell Füssli (Zurich); b) *Pestalozzi Sämtliche Briefe*, publ. par le Pestalozzianum et la Zentralbibliothek de Zurich, 1946–1971, 13 volumes à ce jour chez Orell Füssli, Zurich.
- Les principales œuvres sur Pestalozzi ont été publiées dans pratiquement toutes les langues.

II. Principaux ouvrages sur Pestalozzi, sa pensée et son œuvre

La bibliographie des ouvrages parus principalement en allemand sur Pestalozzi a été successivement réunie par :

- Israel, A. *Pestalozzi-Bibliographie*, 3 vol. (Monumenta Germaniae paedagogica 25, 29, 31), 1904.
 Klinke, W. *Pestalozzi-Bibliographie*. 1923.
 Klink, J.-G./L. *Bibliographie J. H. Pestalozzi*. 1968.
 Kuhleemann, G. *Pestalozzi-Bibliographie 1966–1977* in: *Pädagogische Rundschau*, 1980, 2/3, p. 189–202.

Une bibliographie générale est en cours d'élaboration à la *Forschungsstelle* du Pestalozzianum de Zurich.

Parmi les ouvrages qui ont marqué l'interprétation de l'œuvre de Pestalozzi, on distinguera:

- Barth, H. *Pestalozzis Philosophie der Politik*. 1954.
 Delekat, F. *Johann Heinrich Pestalozzi, der Mensch, der Philosoph und der Erzieher*, 3. Aufl. 1968.
 Froese, L. ; Kamper, D., usw. *Zur Diskussion : Der politische Pestalozzi*. 1972.
 Litt, Th. *Der lebendige Pestalozzi*, 2. Aufl. 1961.
 Meier, U. *Pestalozzis Pädagogik der sehenden Liebe*. 1987.
 Natorp, P. *Der Idealismus Pestalozzis*. 1919.
 Rang, A. *Der politische Pestalozzi*. 1967.
 Schönebaum, H. *Johann Heinrich Pestalozzi. Wesen und Werk*. 1954 ss.
 Silber, K. *Pestalozzi - der Mensch und sein Werk*. 1957.
 Soëtard, M. *Pestalozzi ou la naissance de l'éducateur*. Berne, p. Lang, 1981.
 Spranger, E. *Pestalozzis Denkformen*, 3. Aufl., 1966.
 Stadler, P. *Pestalozzi*. 1988.
 Stein, A. *Pestalozzi und die Kantische Philosophie*. 1927.
 Wernle, P. *Pestalozzi und die Religion*. 1927.
 Würzburger, K. *Der Angefochtene*. 1940.