BOOK OF PROPOSALS:
To rediscover the value of the creative function of "time"
Within the framework of durable development and social, economical and educational practice.

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SUMMARY

Introduction. Reminder of the work carried out by the FGF and the book "Les fêlures du temps"

- *The established facts in mentality and applications on perception of time.*
  Time is ill

- Submission of all temporalities to technological time.
- Anxiety about time passing by, without evaluation of past time
- Domination of the catch-phrase *"time is money"*
- Acceleration of events and the absence of clairvoyance in politics and administration
- Non-communication between the different expressions of time
- Separation of life spaces
- Excess of mediatised communication (meaning the medias) and lack of direct communication

- *The objectives of the book*

- To give onsefelf the means of a method to reconciliate with time and to link it with duration.
- Propose concrete targeted actions for everyday practice and global prevision of the future of the Planet.

- *The method: 4 axis as a guide for all proposals.*

- Emphasis on positivity of time, desire for durable development. (Axis a)
- To break the linear and receding axis past-present-future. To replace it by the spiral and reflexive present-past-future. (Axis b)
- To listen to time disturbing linear schemes and programmation. (Axis c)
- To work the concordances of times. (Axis d)

- *Particularities of this book of proposals*

- It is positioned up-stream of the immediate praxis.
- It is essentially interactive between the demands of the concrete and the more general and abstract intentions.
- There is a strong emphasis on educational objectives and transformation in fields like formation and evolution of methods and mentality.
- According to the proposals, the examples, counter-examples or illustrations will take place in different passages of the text.

I. Time, socio-economical space and the working world.

1.1 To humanize the working time in social and medical practice.

- To restore a taste for social and medical work by integrating it into a larger meaning than the immediate. (a)
- To teach the medical profession to reconciliate patients or marginals with their history. (b)
- To enlarge psychological education to the question of the meaning. (b and c)
- To go away from the mentality of mechanical work and therapeutic efficiency. (b)
- To give the practitioners methods and means (in terms of time) to be receptive to unforeseen events. (c)
- To restore values and costs to non-direct productive times. (d)

Illustration: the case of the nurse and the carer in their every day activity.

1.2. To enlarge the space and duration of education.

- To show the importance of educational time not only to meet the socio-economical demand, but also to cultivate curiosity and pleasure to learn. (a)
- Make the person on a course an actor of his approach. To fight against "programmarchie".
- To offer to persons during the courses the means to appropriate to themselves the tools acquired during the course. (b)
- To leave the educator more freedom of movement and more creativity. (b and c)
- To teach the educators not only about coherence, but also about the discontinuities and the benefits of their teaching and experience. (b and c)
- To articulate the whole of a course on the multiple temporalities hidden in timeless teaching process. (d)

Illustration: the case of educational courses for rehabilitation.

II. Time and communication.

2.1.Time and acceleration of images. Educational work for everyone.

- Stop on image: to give an esthetical taste for the image and to show the novelty of the multimedia and iconographic culture. (a)
- To learn the distinction between quality and emotional strength of the image and its ethic and educational far-reaching effect. (a and b)
- Not to dread emotion, nor be invaded by it. (a and b)
- To dismantle the framework of publicity of informative message in order to focus on the different crossways introduced by the intervention of a human programmer. (b)
- To re-read group history of communication. (c)
- To systematically integrate the positive value of the future, however the appearances, and to denounce sensationalism which generates fear. (c)
- To emphasize other points of view and the different rhythms hidden behind the stream of images. (d)
- To integrate the culture of the image in the whole human activity, or even ecosystemic. (d)

Illustration: the view of children on worldwide events and publicity.

2.2 Time for surveys. Raising awareness of conscience in rulers and politicians

- What is a statistical approach? Explain in terms of quality. (a)
- To learn the difference between the mechanical scientific approach and probabilistic scientific approach. (a and d)
- To train managers and politicians to awake and listen to minorities. (b)
- To create forums (mediatic or informal: street, association, etc) to meet majority groups and minorities. (b)
- Prefer dialogue to general schemes. ©
- To learn to read history and past problems before analysing surveys. ©

- To relativise the surveys to a global project. (d)

Counter example: decisions submitted to fashion the mentality of the largest number.

III. Time and inter-generational

3.1 How to raise the consciousness and create space of language for the inter-generational

- To restore the values and the price of experience and duration. (a)
- To work on informing the radical novelty of the inter-generational co-existence in history. (a)
- To create informal spaces where generations can meet, outside of the private space. (b and c)
- To learn not to fear conflicts and incomprehension. To fight against the spirit of consensus now existing which is without interactive verbal exchange or depth. (b)
- To try to solve the inter-generational violence through education and dialogue. (b)
- To fight against dictatorship of the "new" and the myth of "youth". ©
- In reciprocity, to fight against timeless integrism. ©
- To have the generations meeting in their space of life. (c and d)
- To teach complementarities and conscience of the shifts of times and mentalities. (d)

Illustration: the position of people at the end of the active life or in retirement.

3.2 Time to listen to the presupposed of different generations in the enterprise world.

Anticipative illustration: the knowledge of the seniors in enterprises.
- To give to any young worker starting in an enterprise information about the history of the enterprise and its integration in the social and local landscape. (a and d)
- To offer the young one, whatever his situation in the enterprise (from management to basic staff) the means to appropriate himself with the objectives and to know the methods and the staff.
- To show the employers the value of knowledge acquired through experience. (b and c)
- To remember the capital of an enterprise and the market value of information. (c)
- To invite retiring personnel to write, transcript and re-read acquired knowledge. (c)
- To train the managers and the DRH to multi-dimensionality available through age and experience.
- To fight against the "unaire" and "linear" thinking process. (c and d)
- To enlarge the space for personnel and encourage the recruitment of managers trained in human and ecological sciences -(in the scientific meaning of the word). (d)

IV. Time for ecology.

4.1. Ecology, the first complex science. Proposals for ecological education.

- Place curiosity and wonder first and foremost for knowledge before critical analysis. (a)
- To give ecology a primary importance in knowledge, not the ancillary position of biology. (a)
- To give back to ecology its scientific value to counter balance the naïve ecological slogans of politicians. (a)
- To integrate the history of nature, representations of nature and the relationship of man to nature in the teaching of history for a better understanding of the present situation. (b)
- To integrate all teaching in a more general context for students to assimilate- to increase their consciousness of responsibility for the future. (b and c).
- To keep the door open for permanent attention to historical and planetary events in ecological prevision. To construct differential methods. (c)
- To learn the connection and the necessary tension between equilibrium and local demands and global organic representation (notably on a planetary scale). (d)
- To educate to complexity and to focus on global vision from childhood. (d)

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Comparative illustration: the structure of the teaching programs and institutions.

4.2. Ecology, the human sphere and practical experience.

Illustration and introductive interrogation: the case of a forester and the different aspects in maintaining a forest.

- To learn to work systematically the multi-dimensionality of all projects. (a)
- To develop research towards a convergence of socio-economic interests and eco-systemic necessities. (a)
- To give means (time and money) to the actors of an activity at the border between economy and ecology, to know the historic of an ecosystem (in the wider meaning) and to foresee the space of its evolution. (b)
- To link continuous duration and the different forms of time of ecosystems with the discontinuity created by human intervention. (c and d)
- To invite the leaders and administrators to collaborate with the actors of a project to maintain an equilibrium.
- To analyse the difficulties to reach agreement about different times: the authority's time, the demanded practical time, the leisure time. (d)

INTRODUCTION

1. Genesis and foundation of the project

Organised by the Foundation for Future Generation of Namur in Belgium, a series of seminars, symposiums and conferences were held over a period to think about time and durable development in multi directional fields (politics, economy, ecology, society and private …). The research carried out gave rise to the publishing of a book in course of publication at the Editions of the FPH in Paris. The present document is a continuation of this first work, through a personalised re-read external to the previous realisation.

The relationship of men, communities, institutions or enterprise in the occidental culture is time sick. We only have to listen to any consultant or any psychologist or sociologist to admit it. Some symptoms are:

The first example which over-rules and constrains the others is submission of all temporalities to technological time. Time of clocks, formerly mechanical, today are electronic and over-rule all the others. If it is a necessity for any industrial production activity to manage technical risk or practical organisation, it becomes tyranny when in many situations, it prevents communication and creativity. There are indeed many other perceptions and actualisations of time, such as time for nature, time of the body and emotions, the one for personal relationship, the one for reflection and subjectivity, the one for symbolic activity (Art, for instance). Above that, technological time is a continuous time (linear and cyclic): it elapses, indifferent to events. Yet, events often are fractures, and therefore are signs of a language demanding interpretation and multiple optical analysis. Broadly speaking, it is important to complexify time representations by invigorating them with new approaches and methods where complexity, creative processes become essential.

More subjectively, time is perceived as an elusive fluidity crossing subjectivities, bodies and organisms of all kinds. The finality of our projects and the death are prowling about like phantoms. The elapsed time slips away and worries, whilst it could be a base for constructive and critical evaluations. Here, the damage is absence of memory.

On the other hand, economically, the catchword "time is money" invades everything. The drawback is that in a culture where commercial exchange, production, consumption, customer relations are the driving force, this catchword finally invades the most distant areas. We will give a few examples, such as the carers and the forester.

Other aspects of the surrounding pathology of time and duration is the acceleration and the unforseeability of events headed by many leaders, administrators, managers who lack clairvoyance. The fear of being mistaken in the middle or long term, paralyses wider visions and durable ambitions. Yet, the remedy does exists if we can afford to think with wisdom and consider a new humanism adapted to demands and contemporary experience.

The multiple expressions of time do not communicate. It is sometimes very concrete facts like set up dates and hours for meetings of professionals or officials and voluntary workers. But one also mutilates communication of time by averaging when each duration stops and when the other starts, in a sequential division nearly schizophrenic: for example the person arriving at work has to forget his own private life or the stress of travelling hours.
The non-communication of times is as well based on separation of life spaces, a paradoxal result of urban development, of democratic values and freedom (respect of private life for example), of scientific management of work. Here the incredible social experience of the last centuries (freedom, right, subjectivity and detachment of natural constraint) mark time within new constraints linked to the fractioning of social and personal time.

Some will say no, there is no communication, there has never been so many means of communication than today: medias, exchanges, transport facilities, etc … The problem is elsewhere, in the disequilibria between excess of mediatised communication and the lack of direct communication. Travelling by car allows a lot of

freedom, but travelling in a bush taxi will raise multiple meetings. To read information on internet or on television is valuable but that time could be used for a conversation with a child or to enjoy a game of "pétanque" or to drink a cup of coffee with friends at the café, time that one savours and reflects …

The list of the diverse pathologies of time could be prolonged through pages and pages. This counting is not only a summary of defects or excess of practice, but more likely the sign of an affection of mentality. In other words, it is not about a maladjustment problem to reality, to use the terminology of the Foundation Meyer, but more a structural problem. The continuation of this document suggests tracks to sustain the transformation of mentality and structure concerning the relation of everyone and all of us to time and duration.

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2. The objectives of the book. How to resume in a few words the objectives proposed in this document:

The first aim of this book is the **metamorphosis of mentality,** indispensable preliminaries to the transformation of our behaviour, actions and decisions.

2.1. It proposes to give oneself the means of a method to reconciliate with time and to link it with duration not to become an eternalised ideal or a repetitive cycle. The myth of eternity, if it is necessary to put a formal frame on reflection, can dogmatise through confusion reality and idealism. The axis of the proposed method offers tracks to readapt to duration.

2.2. The changes of the look inferred from the methodological reflection has concrete prolongations for everyday practice and for global forecast of the future of the Planet. Conversely, the practice, the witnesses, the real difficulties often linked to simplified approaches will adjust the elements of the suggested method. Through the reading of the present file, the reader will have to understand that the evolution of mentality relates to a live methodology, more concerned with permanent interaction, exchange of information, complexity and regulation than with a methodology of a representation in which each dimension of reality and knowledge is classified in predetermined models.

3. The method: 4 axes as a guide for all proposals.

The method leans on four proposals, which will be used as axes for the whole file. They are not abstract frames but dynamic ones, in fact sources of energy destined to set each of us in motion.

3.1. The first axis is a mind resolution. It proposes to raise the value of **positivity of time and the desire for durable development.** As the relation to time and duration is sick, we propose a therapy without acting, with a determined and positive mind with the risk of delay or annihilation of the healing process. A far-east proverb says that the wounds of the winner heal faster than the wounds of the defeated. Anyway, the look upon the future has to be at first an astonished one, confident and alive.
(Methodological axis a)

3.2. The second axis consists in breaking the fixed and excaping line "past-present-future" which characterises the agreed and thoughtless perception of time. The present appears then as an unreachable simple point on a continuous line. Yet **the present has to become the mediation and the passionate and critical return of all reflection of time and duration.** One has therefore to replace the line "past-present-future" by the spiral and reflexive present-past-future where present is the untiring gravitational force. (Axis b)

3.3 The line of time is not continuous. The instantaneous schemes do not stop duration. On the contrary, the permanent irruption of novelty is not always a guarantee for the quality of the future. A methodology on time and durable development suggests **to look out for the unforeseen event (positive or negative) as a disturbing factor** of programming and of linear schemes. In other words, it is important

to   disconnect the time for our submission to space and continuity, whilst we keep a   critical view upon the naivety of the cult for novelty. (Axis c)

3.4. There is not one time, but many sensations, perceptions, expressions and   realisation of time. Any analysis and any action has to try to make evident the multiple   temporalities present in the equation and the resolution of a problem, then to   reorganise them to avoid hypertrophies of some time and asphyxia of some other time.   Consequently, the aim is to work on the **"concordance of time".** (Axis d)

In each part of this document, we indicate the letters a,b,c,d corresponding to the methodological axis to which proposal they belong. These letters indicate a direction, but do not have to be constraining for the reading.

4. Particularities of this book of proposals

- The whole of the following proposals aim to an evolution and a transformation of mentality and presuppositions that rule our habits and decisions. It is consequently positioned **upstream of the immediate praxis**. No ready-made answers, but mental dispositions, guidance and action processes. Neither is its intention to appear as an ethical speech full of good advice defaulting good intentions, but as a logic destined to accompany our views and our choices of action.

- This book is essentially **interactive.** It operates as a permanent backward and forward motion between the demands of the concrete world and more general and abstract intentions. In mathematics, it could be defined as differential (the curve represents the concrete and the tangent represents the axis of reflection) and non geometrical (good general view where each figure is carefully put in its place). When the concrete process progresses, the axis of reflection adjusts accordingly to new information and methodological axis proposed. When the process trips over or when it is upset by events, the reflection plays a part of a regulator … and so on.

- The document is aimed strongly towards **educational objectives and transformations in training courses and evolutionary methods and mentality.** This matter is inevitable as it is here that the future is at stake in our behaviour and for future generations. But quoted examples show that without restraining the education or the courses, some practical changes in the everyday life, economical, private, or political, will already help the evolution.

- According to the proposals, the examples, the contra-examples or illustrations will not appear in the same areas. Indeed, sometimes a concrete case has inspired reflection (for instance the case of the forester, torn between the multiple demands of time, or the contra example of this enterprise which, by employing young staff, has lost the experience staff); sometime it is the reverse, the reflection has called for some illustrations or examples (the method of the last part is an interrogation of the teaching programs).

- The interrogations in all the four following chapters have been determined by a small group (three people) asking many different questions concerning the work of the Foundation for Future Generations. The operating quality for the proposals and methods is still "in laboratory". We wish that, without haste but with determination, they will be fertile to the modalities of our judgement and the management of our plans and concrete activity.

1. Time, socio-economical space and the working world.

The working world is time sick. There is no need to criticise this fact, it has been the object of many complaints of numerous workers, managers, administrators, whether in fields of production, commerce or diversified departments, etc … The whole of the present proposals aim to tackle this problem through a double experience: on the one hand, the carers, whose experience which is well-known for its "non well-being" due to distance of the premises of accountable decision; on the other hand, the courses are particularly concerned with social and economical rehabilitation.

1.1. *Humanise the working time in social and medical practice*

PROPOSALS

- To escape from the mentality of mechanical work and therapeutic efficiency. (b)

Efficiency and profit earning capacity has invaded medical and nursing care. Today, social organisations, social security and mutual insurance are asked to diminish their costs at the very moment when the attention to the patient is more and more demanded. Is it necessary to be reminded of the increase in solitude and the loss of traditional structures which isolate an increasing amount of people in hospitals, in old age homes or at home.

The re-evaluation of the listening practice demands freedom from the mechanical spirit issued from the enterprise, financial organisations or mutual insurances. The target therefore is to work above decisions sensitive to the cost effectiveness of nursing and medical work. One of the possible solutions is the analysis of profit earning capacity of top medical technology in relation with profit earning capacity issued by listening to the patients. The analysis can only be worked out globally and statistically and as a consequence has to be organised by a reliable authority responsible to large social systems and health administrations.

- To restore a taste for social and medical practice by integrating it into a larger meaning than the immediate. (a)

Discouragement is frequent in social and medical care work. The duration of the active life of a nurse seldom exceeds ten years, the carers even less, and the social workers are quickly demoralised. The administrations, which help and finance, have a lack of financial means and appropriate equipment. The contest of culpability (moral obligation of the department, emotional contingency) finally prevails over motivation, which led the staff to start this profession: most of the time, the desire to help with a supportive mind towards meeting the others.

To allow them to rediscover their profession, the present proposal suggests giving some value to social and medical work through creation of areas where sharing and listening can be possible amongst staff and leaders. These meeting areas have to be established and financed by social organisations and local authorities. The proposal appeals to leaders of social and medical services to take into consideration informal time for listening and sharing of mutual experience. It is important, in this action of rediscovering taste, to allow participation to the intervening party concerned, after a sufficient listening time, not to give way to pessimism.

- To teach the carers to reconciliate patient or marginals with their history. (b)

A patient, a handicapped, a marginal, an excluded, unless granted with a large moral strength is plunged in suffering. The social worker is often contaminated by the haunting proximity of this suffering. The reaction is to balance between an empathy that can soon become a pathology, and which leads to shutting down oneself to the other through a simplified technical help to be provided.

Yet, one of the targets could be to approach the suffering person by meeting him or her through his/her own history. To free this listening time demands several conditions: psychological training (even psychoanalytic),

moral and psychological back-up of the staff, finances, etc … The result is triple: to help the patient himself to heal from his present illness by reading his present trouble in the light of his past, to free the carer from the obsession of the other's pain. And to allow the above to retrieve his initial vocation.

- To enlarge psychological education to the question of meaning. (b and c)

The transmitted psychological education undeniably allows the staff of social and medical services to densify and optimise their action. But if psychology and psychoanalysis offer tools for self comprehension and that of others, and the rereading of the past, does not directly open to the question of the meaning of existence or to that of others.

The present proposal leads to freeing psychological courses from their reduction of the study of the psyche, to open them to social, political, historical, linguistic, religious, ethic, and philosophical dimensions. It is destined for psychological institutions and diversified care divisions in order to allow students and training staff to enlarge their knowledge and their concepts to the values of the whole city. Later, in practice, this external reference will help the carers to free themselves from the significant restrictions of their work.

- To give workers methods and means (in terms of time) to be receptive to unforeseen events. (c)

The programmation of help for people in need or for the sick often follows stereotyped procedures. Yet, in the framework of service towards people in need or sick, the attention to each one's singularity and to the frequent unforeseeability of evolutions is little considered.

Whilst awaiting the possibility that financing and methods will get more precise, it is urgent to allow practitioners to keep a critical point of view on the law, ordinances and short-sighted procedures. It is not possible to forecast everything and even more illusory to multiply management without the help of the field workers. Many unpredictable events or non-said events interfere to the point of paralysing the efficiency of procedures decided without method. In other words, this proposal appeals to institutional leaders and to practitioners for them to find time and fields for dialogue and communication. There again, this time has to be institutionalised to avoid the irreverent isolation of the practitioners and the frequent and unconscious contempt of the deciding administration.

- To restore values and time non directly productive. (d)

Consequence of the above proposals, medical care and social help must be a part in the scheme to include the two following dimensions: technical, economical and medical efficiency on one hand; time for listening and personal relationship (at all levels of the institution: from the authority to the patients) on the other hand.

The cost and the logistic investment of the second dimension (time to listen and personal relationship) can only be globally and organically evaluated, because it is not possible to evaluate directly the quality of time given and time for listening. Consequently, it concerns a work that goes beyond simple classical accountancy. It calls for evaluation tools in relation with statistic and probability science. Such an evaluation will balance the actual medical social situation on behalf of the care staff and the workers in practice against the specialists and technology.

ILLUSTRATION: the case of a social carer in her daily activity.

Anne gets up very early, around five AM, to attend to six patients for which she has charge in that morning in the vast sector of her service. Her first visit is to attend to a lady suffering from Alzheimer disease and living in a small house on the outskirts of the main village. Everything goes well concerning the care but Anne does not have time to chat with the daughter of the house as she has to respect her time table. Anne goes back into her car but a few minutes later, is blocked by road works. Agitated, she manœuvres and makes a U-turn to find another route, but, as she is not the only one, she is caught in a traffic jam and looses precious minutes.

The second patient is quite impatient. When Anne arrives, the patient complains and resists the care whilst Anne, feeling guilty for being late and trying to avoid conflict, is biting her lips with impatience and gets nervous during her care work. Unfortunately, she tears the gown, which she is trying to put on the patient who soon complains about it. Leaving half an hour late, Anne reassures herself thinking of the young myopathe who is always in good humour and whom she has to bath. As the main street is still blocked, her delay is accumulating. When she arrives at the young handicapped's home, he starts to talk about the football match that he saw the night before. Anne listens distractedly and the young patient notices her distraction, laughs and obliges her to listen to jokes. The atmosphere becomes more relaxed but Anne has to tell him that she still has three other patients to see, and that her time is limited and that she is already three quarters of an hour behind schedule.

Towards the end of the morning, Anne is carrying out her work in haste and as quickly as possible, without taking time to sit and talk with the patients and their families. This makes her last call half an hour later than her timetable allows. But she then reflects on the remarks made by those responsible for the health care at the last meeting: "We have received an administrative circular concerning the reduction of work time and the financial constraints of social security concerning home care. I have to remind you that the social security has allocated 22 euros per sick person, the cost of equipment included, for each visit of three quarters of an hour. Calculate, we don't have much time to ramble. Kindly try, as far as possible, not to run over the limit of the timetable that we have agreed". To avoid reprimand, she prefers not to count her extra half hour.

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1.2 To enlarge the space and duration of the educational courses

INTRODUCTIVE ILLUSTRATION: an experience during an educational course for rehabilitation.

The Regional Office for social rehabilitation of women at home partly finances the course proposed by a private society, and partly by a large local enterprise manufacturing high quality furniture. The course is based on possible future employment in the factory located in the next village. It is obvious that these women will not directly work at cutting wood, colouring and coating, nor the mechanics of hinges, or relations with suppliers. There is little chance for them to be part of the administrative or commercial service. Most of them are over 45 and studies are past history. The private society also knows that amongst the fifteen women following the instruction, only two or three have a chance to be employed in the enterprise mentioned above. They will probably work in the packing and delivery department or quality control or the cleaning of the workshops and the administrative offices.

After an overview of the whole course proposed by those responsible for the instruction and a round table of presentation with the participants, we have more information about each of them. Most of these women are married and have children, half originate from North Africa, and one of them is Pakistani. They all have problems to write in French. Amongst them, four have already followed one or two courses for rehabilitation. It is the first time for the others and these are expressing their big expectations about the proposed course. The five experimented women will soon lose their illusions. The course includes apprenticeship of French, notions of calculation and computer, and of course information concerning the enterprise. The course will take place for one month, three days a week, and a tutor will personally accompany each participant. This training is the first of its kind (in fact, only financially) and the head of the course is happy to say that the course will become a prototype for other women who have applied.

The first days, with raising curiosity, the trainees seem to be delighted to follow an apprenticeship and to meet other women in the same situation. But soon other problems start to arise. The French teacher has noticed that most of these women reaching menopause have difficulties to deal with the position of their bodies, sitting all day long on uncomfortable chairs. One thing leads to another and she discovers the need of these women to talk about their personal history, about the ageing process and the progressive betrayal of their bodies. She talks to the head of the course about the amount of time dedicated to the apprenticeship. This one, reluctant at first, addresses the question to the director and debates with his colleagues and finally with the sponsor of the project. After several reunions, the training organisation considers that the first necessity is to spend time listening to the trainees and question the initial programmation of this cycle of training. Finally, the head will appeal to a psychologist, a sophrologist and a professor of history from the nearby College, in agreement with each tutor.

The proposed aim is to reconciliate each one of these women with their own history, often uprooted and with their ageing and wounded corporal state.

The duration of the training is highly re-evaluated and spread in time. At the end of the day, only three women will be employed by the furniture company, but most of them will thank through evaluations, the educators and tutors for having spent their time for this personal acknowledgement.

PROPOSALS

- To show the importance of education time not only to meet the socio-economical demand, but also to cultivate curiosity and pleasure to learn. (a)

Most of the time, a continuous formation is contingent. The aim is to adapt the trainee to the immediate demand of an enterprise or, when it concerns unemployed, to the local job market. But contra examples do exist. In the eighties and the nineties, the Schneider Company has raised a vast training scheme on behalf of the whole staff, from specialised workers to foremen and master tradesmen. Why this scheme? Not directly to meet the needs of the company but to raise most of the staff to the secondary scholar level. The acknowledged and define Objective was to open the mind of the employees and to promote curiosity and personal creativity, even if some suspicious minds thought that there were more occult reasons, like developing the possibility of flexibility of the concerned staff or to improve Schneider's image. We will not elaborate on such possible motives.

The former example will establish a basis for the proposals: the sponsors of the training courses and those responsible for human resources are invited to develop projects less directly adapted to the immediate demand. The aim is to restore a taste for learning and a desire to progress at times where more and more individuals are in need to change their profession. The content of the programs can be inspired by scholar contents (as used by Schneider), but the shape and the method will have to remain free and be linked with personal development of individuals.

All the facets of this general proposal demands to extend the duration of the courses, to allow personal time for reflexion and to explore the multiple possibilities highlighted by these demands. It concerns both training organisations, financial institutions and the work places concerned.

- To make the person on a course an actor in his approach to fight against "programmarchie". (b)

The linear representation of time and its reduction to operating diagram made us lose track of the fact that the training courses are above all an education of the individual in relationship with his or her, history, his or her social background and to the natural environment. Yet, each one of these connections is carrying a memory to reflect and to assimilate. The mania of programming everything to the last point is losing such objectives.

The present proposal is an injunction destined to training organisations. As traditional schools and superior education follow pre-established programs, why could the continuous training organisations not expose in their list of priorities the personal approach before the conformity to the programs? Practically, it means more importance for the needs of the trainee, to the method of acquisition of knowledge. The object is not to deny programs, but to give them flexibility. And, as the Schneider experience shows, this is not contradicting, far from it, it is an adaptation to the needs. Is this process not a durable investment?

- To offer to persons during the courses the means to appropriate to themselves the tools acquired during the course. (b)

As a continuity of the former proposal, it seems important that the continuous formation compensates a lack due to hypertrophy of the initial formation: abstract education, non historical and non practical (see proposals of part IV). The working world requires people adapted to their job, which is comprehensible, and is often irritated by the maladjustment offered by schools. One of the dimensions of this deficiency is the absence of practical and experimental sense.

The training organisations have to compensate these deficiencies. Therefore they can:

(1) develop courses in alternation with the working world, but remain vigilant about the conditions of this alternation which would be respected from both sides.

(2) get actualised equipment for experiments and not to recuperate obsolete equipment in local schools, and work in that direction including the local economical system (in computer or technology fields for instance).

(3) work with the trainees not only on acquisition of knowledge, but on processes of this acquisition, which demands a personal follow-up of each person on a course. This last aspect will largely help the trainees to acquire reflexive methods (therefore creative), even at a very elementary level.

All this demands an important investment from the state and private enterprise. But this also demands an awareness of the responsibility of the training organisations.

- To leave the educator more freedom of movement and more creativity. (b and c)

Other consequence of the previous proposals, to the extent that if the continuous formation is likely to reach small individual groups and not large ones, the training schemes have to allow an important flexibility between the parties concerned. Training organisations owe their reputation to the quality of their teachers well before the quality of their administration. Such an attention demands, from the organisations and the sponsors:

(1) to rely on confidence in the teachers and therefore to reserve supervision and control equally necessary to the final evaluation

(2) to offer the intervening party time for creativity: consultation of documents, access to Internet, meeting with others concerned.

(3) to get an evolution in the authority's mentality still very dependant on representations issued by the mechanism of initial training (National Education), etc …

- To teach the educators not only about coherence, but also about the discontinuities and the benefits of their teaching and experience. (b and c)

As shown in the above experience, a course can raise unacknowledged or obsessed questions, which interfere with the flow of training. When he is not bound to the programme in view of a final examination or diploma, an educator has to look upon the presupposed, the discontinuities and the openings of transmitted knowledge. This is possible even in strictly technical courses, microelectronics or applying statistics to quality control.

What to do? Time has to be free from both sides of the interface of the course:

(1) on the side of the organisation and the engineering of the course, reunions have to be organised in order to allow the intervening party to explain the designed content and face the openings and discontinuities that the other intervening party could notice. This means that it is necessary to fight against courses organised too quickly, where educators are recruited at the last minute without real preparation.

(2) on the side of the educator, research work is indispensable to prepare the possible solicitations of the future trainees.

This proposal completes the former ones to the extent that it relativises the multiple knowledge by joining them to possible wider unity and to the real world, and thereby humanising them

- To articulate the whole of a course on the multiple temporalities hidden in a timeless teaching process. (d)

Another perverse effect of the abstract initial formation, the multiple temporalities present in the content of a course are hidden. Thus, a simple course in electrotechnics for instance, taught with scholar manuals in a predetermined program, amongst mathematical and algorithmical formulas leaves out: the history of electricity, the time for real experimentation with its share of failures, errors and adjustments, time for practical manufacture of tools, time for economical and accountancy constraints, time to train technicians. But it equally forgets all the durations dedicated, and will more and more be so, to the research and the adaptation to such technique or industrial development to environment, ecology, effects on local population and inherent technological risks. What is true for a simple course in electrotechnics is even more so for courses in communication or in management. The analysis of these multiple temporalities and how they articulate (or dis-articulate) allows humanisation of the abstract content and puts it in a real form.

There again, it is important to create within the organisations of training, teams who reflect how to clear these diverse presences of time and to give them a consistence, which allows the future trainees to prepare themselves to the richness ahead of them.

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In conclusion, we will observe that all the suggested proposals by this chapter recommends to:

1. Not to diminish but to increase the duration of formation, especially when they concern people in a difficult rehabilitation, by lengthening them in time and by creating open spaces for them and in the economical historical and social environment.

2. Be aware of the quality of formation and organisations setting them up. The regulation has to be executed by the authority and not adhere to marketing, which probably will not improve this quality (see part IV for change of mentalities). The improvement of quality can surely remove questionable organisations, but it deplaces work towards creativity and research. In terms of employment, it is not sure, far from it that economy would be losing.

3. To encourage the working environment to the financially and mentally concerned, to the projection used in organisation, and to raise the importance of personnel valorisation for social and economical adaptation.

4.To emphasis the work on "a priori" confidence and not on procedures of secondary relevance.

II. Time and communication

2.1. *Time and accerelation of images. Educational work for all.*

- Stop on image: to give an esthetical taste for the image and to show the novelty of the multimedia and iconographic culture. (a)

The whole of the following proposals concerns the relation of time to image in the new mediatic culture. It is meant for everyone, but especially to *families, educators and teachers*, and, if they manage to break away from the economical grip, *to the several actors of the mediatic creation*. The background is the future of the children and the future generations already receptive to our images.

In three decades our countries moved from a one channel television with slow and static images, from slow written music with carefully controlled contents, to a television of infinite zapping, sequenced and fast images, not always perceptible, to music often written and sometimes violent, and with diversified and uncontrollable content. The cinema follows the same trend, the multiplication of publication of all kind and the liberation of broadcasting which more and more is directed to a targeted public, increases and intensifies the informative flow. The rise of computer, platforms of games, internet, develops a tremendous access to thousands of faces of culture, and even more, by opening the interactive techniques, generates an extraordinary new creativity and gets children adults and older people out of the old passive area where one was looking at television as a family with agreed respect. From this point of view, the creation of the remote control can be considered as an asset.

The climate has changed before knowledge was reaching children through unique channels, controlled, thought and supported by educators and parents. Today each is permanently swept by a flow in which no buoy is too tight, no filters to distinguish the validity of images and sounds.

Before condemning or to seducing without mediation, it is important to show all the positivity of this extraordinary cultural novelty. Two fundamental tracks are proposed to appreciate their qualities:

(1) To form the esthetical taste as soon as childhood in the schools. To also create as well spaces for adults and older people managed by public organisations to allow them to learn some technical elements.

(2) To link the novelty of the multi-media culture to the former culture through sensitivisation campaigns and intelligent information with the prospect to sow the fields for a discerning world (buoy and filters).

- To learn the distinction between quality and emotional strength of the image and its ethic and educational far reaching effect (a and b)

First step of discernment, the methodology has to be searched and transmitted to discern the difference between emotional strength (going through aesthetic and seduction of the senses and the ideas apparently evident), and the aesthetic value: ethic has to be understood In terms of individual and social values.

In the same direction, pedagogies have to be developed *as soon as scholarship* to allow children to appreciate the technical and esthetical quality whilst remaining reserved upon the value of the content. The analysis of cartoons, Internet sites or computer games has to become a full part of the discipline in education.

- Not to dread emotion, nor be invaded by it (a and b)

Emotion is indispensable to unify the body, the senses and the spirit. Under the pretext of manipulation by images, certain adults would have a tendency to distrust and criticize even before seeing and tasting. This intellectual precipitation endangers severing the body and the intellectual sense at the exact moment where the multi media culture can help to reconciliate them.

Education to emotion is necessary, there too school is still influenced by abstraction and intellectuality; it consequently demands the entering of professionals of communication in places of initial formation, and the creation of techniques of emotional expression and sel-control. And why not extend these creations to continuous formation and to seminar directed to all, in neighbourhoods and associations ?

- To dismantle the framework of publicity or informative message in order to focus on the different crossways introduced by the intervention of a human programmer (b)

In the same line as the previous item, but this time from the analytical point of view, it seems important that the *professionals of communication and the educators*, from a technical point of view and from a conceptual point of view, explain how the mediatic messages are formed. There is no question of taking an interest in ethical or educational value but merely to show evidence of:

(1) all information is crossing diversified mediations: the event itself, its perception by the observer, its interpretation by a staff or a pressure group, the desired object and the aims,

(2) a message is even more real and objective when the result is a beam of diversified and sometimes contradictory analysis.

- To reread group history of communication (c)

Still directed to *educators, teachers and technicians of communication,* the present proposal reminds us that it is always useful to link such information to the whole of the history of communication. This avoids precipitated medleys and the perpetuity of preconceived ideas concerning many subjects of actuality.

- To systematically integrate the positive value of the future, however the appearances, and to denounce sensationalism which generates fear (c)

This injunction continues and resumes the previous proposals: to relativise sensationalism and link as well as we can a spirit of discernment and positivity for the future. An existing method, at first glance, can seem awkward and dialectic: the simultaneous and contradictory apprenticeship:

(1) to general vision run by few statistical logics, to avoid the submission of fundamental questions to some significative and provocative images. A politician is not appreciated for a past error for instance.

(2) to the value of symbolic objects, not to dissolve individual or local situations to collective stakes: for example, to raise a fist at a sportive podium has a signification that extends beyond the universal Olympic games..

- To emphasise diversified points of view and the different rhythms hidden behind the stream of images (d)

As it has been explained earlier and when possible, that it is important children and adolescents get instruction and information about:

(1) various points of view and rhythms that can interpret events, society facts or fiction

(2) temporal variations between hidden reality and produced image: like an aggression   in a film or a television serial which has nothing to do with the real time of the   aggression, whether perceived by the assailant or the victim, whether it is situated on   the subjective or objective side, whether it produces short and long term effects on   direct and indirect actors etc …

-   To integrate the culture of the image in the whole human activity, or even ecosystemic (d)

To go from the culture of the written world, from abstraction and linear flow of time to the culture of the image of representation, of sensitivity and of explosion of temporal multiplicity, is not only the apparition of an extra stratum in history. It disturbs the traditional presupposition based on technical analysis on one hand, and the liberal individualism on the other hand, and finally opposition between body and soul. The point is a definite philosophical proposal that has to reach all the actors in the social construction of tomorrow: *politicians* of course, but also *researchers, teachers, educators, artists and intellectuals*. We suggest that the birth of the multi-media culture issues from a metamorphosis of consciousness (the rule of communication of mediatised relation, of contradictory representation, of risk and permanent movement on individualism, linear logic, stability and security). As any metamorphosis of conscience, it will be carried out concretely in social economical demands, and new technologies. This rests to be said by showing true research sensibilisation, formation and information, how and where social foundations are busy falling down.

Other dimensions whose effects are not yet perceptible: the effects on the natural ecosystem. We know the difficulties encountered by industries (heir of paradigms of former centuries) and ecological equilibrium. The researchers, in the hard sciences and the flexible sciences (humans and hermeneutical), have today to anticipate the future effects of cultural metamorphosis.

ILLUSTRATION: the look of children on worldwide events and publicity.

To observe children, awakened by attentive education facing a television program is very instructive. If they have vigilant parents, they will observe facts and reactions which overwhelm them:

(1) these manage to follow the speed of images that the parents can not follow. In the same line, memory operates at full speed. A child will recognize the development of a publicity seen once, whilst the parents will have to see it several times.

(2) They use zapping easily and jump cheerfully from one channel to another with more freedom than the elders. The zapping has at the same time perverse effects (teachers know it well, who have to transmit durable knowledge) and beneficial effects (the image is submitted to the goodwill, sometimes critical, of the child himself).

(3) Even well informed, they find it difficult to distinguish what relates to the physical or human reality and what relates to virtual and fiction. On the other hand, they sometimes link much faster than the parents

real facts to their symbolic environment: so, the signification of a publicity in a modern city sounds greater after the serious event of Manhattan.

Maybe the children, well informed, will be stronger and more attentive to the power at the same time new and beneficial on one side, maleficent on the other.

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2.2. Time for surveys. Conscientiousness of the authority

- What is a statistical approach ? Explain in terms of quality (a)

The importance of public opinion polls in economical and political life raises questions. Useful for sociological marketing or opinion surveys, they become ambiguous when they are used as a method for political administration. One has to remember that the democratical ideal, leans as much on the decision of a larger membership as on the protection and the free expression of minorities. The ambiguity is even more obvious if the survey directly influences decisions without hermeneutical analysis.

- To learn the difference between the mechanical scientific approach and probabilistic   scientific approach (a and d)

The history of science shows that when systems become too intricate to describe by a mechanist approach (each effect has a quantifiable course), the Scientifics have to use statistical tools. These statistical tools have two advantages: they allow a general approach on one hand; they leave a free equilibrium of the elements on the other. Thus it will be possible to evaluate which percentage of people in Brussels will go to Ostend such week-end, but it will not say if Mr, Mme Lambert and their children, from the Rue d'Anvers, will travel or not. The sciences, as they evolute towards an adult stage, add an increasing amount to this statistical dimension. On the other hand, concerning time and duration, the statistical approach has the big disadvantage to dissipate the events that open history, or to dissolve the particular temporalities into a general temporality. From a scientific point of view (the classical meaning of the word), the statistical approach is an approach depending on the choices of the human operator to determine such and such a measure. The surveys, being as neutral as possible, are never totally objective, lacking a precise measure of each case:

Often the two procedures, mechanist and statistic, merge in unsuspecting minds. It is thus important to sensitise *the political authorities for instance*, to the distinction between the two basic approaches. This confusion generates the "sondocratie" which leads many people to refuse a free choice and to follow the general apparent values because of the purely statistical results of the survey:

Beyond these two fundamental procedures, it is necessary to act towards a live methodology: some ideas for this method are proposed in the fourth part of this book.

- To train managers and politicians to awake and listen to minorities (b)

The immediate consequence of the distinction proposed in the previous paragraph is the invitation for *authority, managers, politicians, civil servants*, to listen to minorities. It does not mean obedience to these minorities especially when lacking democratical expression, they swing towards violent expressions or blackmail groups, but to learn discernment which allows perception of their advantages.

The use of surveys belongs to those methods demanding interpretation, sometimes contradictory, and not to a unilateral submission.

- To create forums (mediatic or informal: street, associations, etc …) to meet   majority groups and the minorities (b)

Recurrent theme of the proposals in this book: it is important to promote forums, places for inter-personnel and inter-communitarian meetings. The spoken word is the best remedy against "sondocratie", as the democratic dialogue does not lean any more on statistical globality, but on exchanges of real expression based on synthesis of contradictory debates.

- **To prefer dialogue to general schemes (c)**

Many technological assignments, urban legislative and administrative have often been decided on the basis of general schemes –in the name of the public well being, without taking into account the local opinion. If public wealth has, in general, to be right, it cannot be a pretext for hasty decision issued from scientific studies. Let us remember that the more a problem is complex, the larger the arbitrary part linked to statistical tools become. The construction of a dam, of a power station or a TGV line has formerly been decided upon the simple faith of technical studies.

Still dedicated to the authority but also as to the media, the present proposal insists on the fact that for large decisions, dialogue is imperative, preferably a double meaning dialogue. Today, hopefully more and more important technical decisions seem to choose complexity: for instance, the tunnel driven by the SNCF in France demanded a gigantic study, sociological, ecological, geological, acoustical and political. Thirty years ago, the authority would not have raised so many problems.

- **To learn to read history and past problems before analysing surveys (c)**

Concerning the interpretative analysis of surveys, it is important to place any statistical study in context, sociological, geographical and spatial, but as well historical. Permanent reminder of time and duration. To reach consciousness, hart, -meaning local and living identities- the mediation of history and of memory is indispensable. Such a mediation is not a submission to the past, but a factor of the linearity past/present/future. It is always the present as a permanent interpretation and permanent projection that has to overrule the choices.

There is a lot of work for historians and human sciences where political and technological determination takes place.

- **To relativise surveys to a global project (d)**

At the end of this route, the survey is brought back to its right position: a tool to help large authentical, political decision. It enlightens trough answers but also trough non-answers. It will be even more efficient that the authority and the experts who interpret them will organically integrate the survey in the social, ecological and historical space and not isolate it from its context.

CONTRA-EXAMPLE: decisions submitted to fashion and mentality of the largest number.

A law of physics shows through some demonstrative steps, easy to follow, that a closed system abandoned to the law or the largest number, is inexorably deteriorating. Sometimes the authority seems to naively follow this part. However how many political and economical errors have been committed because of non-reflected submission to statistical appearance. Often the confidence in a majority or scientific results is a good counsellor but it can become blind if it becomes systematical, if it does not consider the mediations of which we talked earlier: mediation of speech, space and time.

Historically, everyone knows what happened in Munich in 1938 when politicians preferred to follow the ambient pacifism and not to believe in the danger represented by the nazis. Another example, a graduate specialist of the Eastern countries leaning on scientific facts, was teaching in 87/88 that the soviet system would last several more decades. He confessed his illusion in a burst of laughter. Without going to that extreme, a representative of a large company forecasted in 1982 no future in the personal computer. According to opinion surveys, even IBM, leader on the computer market at the time, could not foresee the transformation of small structures, to their gigantic empires today.

The confidence of most people was equally shaken during the American spatial programme that allowed the conquest of the moon. The patriotism in opposition to the Soviet Union on one hand, the unlimited confidence to a brilliant technological future on the other hand, led politicians of the USA to invest considerably in the lunar programme of NASA. Science fiction of that era, the futurist could see in the near future the development of the conquest of the planets of the solar system, the construction of spatial spaces and thousands other projects. And today ? Fashion changed and the effects did not take place where expected, and today one smiles about the nice utopias of the 70's. On the other hand, there is less contentment concerning the blindness that leads the planet to a dangerous situation in this beginning of the 21st century.

III Time and inter-generational

3.1 How to raise the consciousness and create space of language for the inter-generational.

The whole of the present proposals is based on society facts. These facts are right in the middle of the subject of time and duration. For the first time, in the history of humanity, with the prolongation of our lifetime, four generations co-exist. The geographical, sociological, distribution, the emergence of nuclear families (small closed structures), the apparition of a new life after retirement (twenty-five years beyond retirement), but as well other phenomena linked with communication, urbanisation, diversification of mentality, raise a unique phenomena yet unknown. The debates on time and durable development in Belgium discovered this phenomena, in comparison with the interface time/duration, is at least as important as the emergence of ecology.

The following proposals are exposed in bulk, the flood of possibilities is vast, but the reader will have to try to assimilate it in a non-organic form through his own experience of the subject.

- **To restore values and price to experience and duration (a)**

It is a general proposal: to restore price, therefore taste, to experience and duration. The mechanist inheritance (accent on analysis and immediate space) and the speed of transformation of mentality led to the idea that only novelty at all levels has some value. Useless to explain that there is not much room for reflection (meaning a perspective of events and ideas). Yet their experience is useful: not in the sense "good old times" which is not reflexive, but as the establishment of a durable foundation for thinking. Even more, the experience helps to laugh, about oneself and without malice for others, as anyone can see when one stops to watch a game of pétanque or a meal of the eldest.

A man from Burkina, in his 50's, who came to Europe, was very surprised that young people presented television information. "In our country, the elders transmit information". Here already stands a sound proposal.

- **To inform about the radical novelty of the inter-generational coexistence in history (a)**

An information based upon scientific studies (historical, sociological and ethnological …) *destined to all* has to be realised in all the areas of society to show the novelty, the gravity and the assets represented by the phenomena. The first concerned by this information are the *local authority*, which, everyday, directly faces the relationship between generations. But this information also has to reach the *legal authority* very quickly (because of multiple inter-generational disputes), and *the educational and scholarly circles*. The novelty of the inter-generational phenomena extends beyond the sociological aspects and reaches all levels of society and all scientific disciplines. It seems therefore important to train instructors in specialised institutions. It is important as well that teaching authority (university, continuous formation, and initial formation) seriously care about this subject.

- **To create informal spaces where generations can meet, outside of private space (b and c)**

Aimed for *authorities and associations*, the following proposal suggest the emergence of extra private living space where generations could meet, express and try to understand each other. Convivial public places, associative places, inter-generational leisure places (artistical and cultural), travelling organisations, neighbourhood meals, help for festive activities. The authority imperatively has to invest financially in these projects.

For instance, in Mediterranean countries like Spain, Portugal, North Africa, Italy, Corsica, etc, it seems important to recreate town centres without traffic, with cafés, game spaces (pétanque and open air activities) where one could meet in the evening. Of course, Northern countries will have more difficulty but creativity remains open.

- To learn not to fear conflicts and incomprehension to fight against the spirit of consensus now existing which is without interactive verbal exchange nor depth (b)

The intergenerational meetings are generating incomprehension which is natural with the acceleration of reality, techniques and mentality. The generations of the baby-boom (years 50) are not the rock generations (60), Vietnam and hippies (70), May 68 "Bof" (80), fall of the Berlin wall (90), techno and multi-media (yesterday) and maybe tomorrow, post 11 September 2001.

These differences are not melting in the water of the new age consensus. They have to be said with their differences and their sharp edges. For this reason, one can create groups to "enable talk" (psychologists and philosophers) to help the expression of all, as it happens in professional reunions in companies.

- To try to solve the inter-generational violence through education and dialogue (b)

The previous proposal is even more important that it calls upstream an education to dialogue. The violence in dangerous areas is often inter-generational forms of violence. It is not enough to help people to express themselves instantaneously you still have to help them to dialogue.
To talk and listen is a mental, affective and physical structure that can be learned. This point concerns, as well, education of young children at school.

Unfortunately, heir of the paradigms of the 19th century, the school still transmits the ideal of a one-way knowledge. Education is nevertheless also an apprenticeship of dialogue, knowing that school is the first place for social experience. The National Education is invited to set up spaces of courses to listen and to talk, surrounded by trained specialists.

- To fight against dictatorship of the "new" and the myth of the "youth" (c)

As it has been said in the method at the beginning of this book of proposals, it is important to leave the linear scheme past/present/future. The past/present/future scheme is a scheme generating at the same time an impression of the escape of time, and a shelter in "eternitary" illusions, meaning intemporal and unrealistic ideals. It is the present as a reflexive centre and as permanent remediation that has to allow rereading the past and give tokens of realism and critical utopia for the future. It is important therefore to debate with the myth of youth transmitted by the media, blinding myth of eternity, and to refuse the illusion of "all new", permanent escape of the present.

Here the acquisition goes from the eldest generations to young. It corresponds to the first direction of dialogue, despite the fact that the myth of youth is not always believed by new generations, far from it. The following proposal suggests another direction:

- In reciprocity, to fight against the timeless integrism (c)

Facing the myth of youth, there is another intemporal illusion found at all levels of the population, young, adults, older people, women and men. It is integrism: conservative integrism and extremist integrism. No need to elaborate on fanaticism generated by many religious integrisms of today. The two forms also asphyxiate all desire for a future investment. Integrism originates both from an absence of dialogue and an identitarian claim. We will not fight against integrism by violence, but by permanent dialogue (even apparently useless) and the permanent opening to expression of identities amongst more global visions (see following chapter). This can also be the subject of training and specific education.

- To help generations to meet in their space of life (c and d)

Previously proposed, the creation of public places for meetings and inter-activities for the various generations. As a complement, the meeting of generations has to take place in life spaces: not only in private spaces (difficult to reach), but in public life spaces.

Many examples for the *educators, teachers, administrators and authority*; led the eldest visit schools or sports clubs for youth, let the active workers come in the same schools, let children visit foyers of the eldest or homes; link schools with work places, let workers meet with retired personnel of companies, help the inter-generational association from public administration. The imagination is open on these themes.

- To teach complementary and consciousness of the shift of times and mentality (d)

No one possesses truth, if it exists, it runs through the circulation of the inter-personnel word, and not in representations or ideas (dogmatic, or critical). Novelty and experience feed organically and meet each other. Perceptions and expressions of time are diverse and complementary. The other perceptions and representations of time and value of duration have to be expressed although technological time, the clock time, is dominating all the others.

Where, when and how? Already, *as soon as childhood, school and university.* The scientific disciplines (arts and flexible sciences), of language and interpretation (languages, history, philosophy), the ones of creativity (arts for instance), of the body (sports), should be organically presented all along the scholar process (see the first proposals in the following chapters). Indeed, they are complementary as long as we take the time and give the words to express this complementarity: the perception of reciprocity and shifts of time has acquired a safe leading thread. Other meeting places, *continuous courses,* too specialised and too technical, the *continuous courses* point out the defect of the perception of time. Therefore it needs to be open. The *public spaces*, mentioned in earlier paragraphs are meeting places for temporalities. In the *media also* (see proposals of the previous chapter), it is important that young ones, adults and elders could raise their boys and avoid authentically recognise to reread events, interpret fiction or participate to the mediatic play.

ILLUSTRATION: the position of people at the end of the active life or in retirement

The end of active life and the beginning of retirement are times of crisis, in a double meaning. Crisis because of destabilisation, and crisis because of opportunity. Unless he falls like an oak tree, as happens sometimes, the retired person –in Occidental countries at least- still has a long life ahead of him. The paradox is that the opening of this new time and the renewal of himself and of his environment is very often hindered by three important factors generating inter-generational conflicts.

(1) The mourning of active life is painful, especially when knowledge has not been transmitted to generations starting in companies. Someone who spent 10 or 15 years in a company, is suddenly considered as a stranger. In reciprocity, such people are not yet reintegrated in the communities of destiny represented by neighbourhood, village life with their share of local activities: politics, associative life, leisure, etc …

(2) The second factor is a lower income. If he is lucky to have some savings, which is the case of a small minority, the problem does not apply. On the other hand, if he only relies on his pension at the very moment when leisure, travelling, diverse investments (house, car, etc …) become necessary, the frustration will be great. Even more, if he has children at university or starting a professional career, with financial worry issued by these situations, it is him the young pensioner, who will have to support these commitments. The paradox is that it is at the very moment when these people need it the most that their income is dropping. A participant to the Colloque de Belgique mentioned the financial culpability hitting people at the beginning of the 3rd age, willingly spread by rumours and media.

(3) A man or woman in their 60's take care both of the grandchildren and their own parents. They are often young grandparents. Their children have children and they have to keep them during working time. On the opposite, they also have to care about their parents who, above 85, start to decline. The mass of women retiring in the near future will emphasise the difficulty. The young retired become key actors in the midst of family life at the moment where after a life of work, the desire to enjoy rest and leisure is often well deserved.

The two last factors of contrarity are intergenerational problems. The previous proposals can be useful for these generations and supported by these generations: not too old, nor young, still wealthy, they are at the crossroads of life. Can they manage?

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3.2 *Time for listening to the presupposed of different generations in the enterprise world.*

Anticipative illustration: the knowledge of the seniors in enterprises.

The directors of a large multinational building company, more and more invested in communication has decided to grant early retirement to a large number of managers and staff over fifty five years old. The social scheme was financially very well planed; the selected personnel did not have anything to complain about. The difficulty occurred in the enterprise. What happened? To replace the retired personnel, the company called many young people just out of school or apprentiship; as well as companions as it concerned a building company. It did not measure the importance represented by knowledge and experience of the eldest, an essential asset in a building trade, and neglected in a vast social scheme. The quality inherent of this large enterprise began to decline and anxiety appeared as it lost important contracts.

A contrary example, in the EDF enterprise, the electricity of France, the eldest when leaving are, so they say, used to passing over names and addresses to the new arrivals. Another example, in an aeronautic enterprise, a worker who had been interested in chemistry for years to the point of becoming the key person in the chemical work shop, was recognized by a research department: the engineers and the superiors technicians of that department integrated him into their teams, trained him and listened to him. Today, that man is a researcher and a manager.

Another example of lost communication between generations, an enterprise employed several hundred employees manufacturing systems of industrial and domestic heating had not realized the necessity of diversification of its staff. The personal manager has never kept the personal CV's. One has to say that its rapid development led to a massive employment in the sixties and seventies. So a workman, working today in the quality control of boiler making, had in fact been trained as an electrician, and elsewhere a mechanic in the B workshop, also had a primary training in electro technology. When they required electricians and electronic technicians, who were becoming rare on the employment market, the personal management lost time and overpaid new staff, and they did not imagine that there were, within their enterprise, staff members who could easily have been raised to that level. The inter-generational problem occurred because the personal managers belonged to the next generation, and nothing had been transmitted.

- **To give to any young worker starting in a enterprise information about the history of the enterprise and its integration in the social and local landscape. (a and d)**

At all levels of employment, whether at the level of guidance and control of the employees, serious information about the history of the company, (not only hagiographic, but also with its success and failures) should systematically be transmitted by personal and training management. The result is double: on one side the young employee will learn to appreciate his enterprise (not only is he considered by the company, but he is also interested in the company) and get involved with his work. On the other side, he will work as much for him as for the enterprise.

This historical contribution must be permanently supplemented with information on the social, political and not only economical- integration of the enterprise in the local environment. An enterprise is part of a patrimony and, most of the time, the counsellors and the inhabitants of a neighbourhood or of a village are content. The reciprocity exists: a person working in the enterprise and living in the neighbourhood will understand better the various interactions between the social environment and the enterprise, and therefore act to improve relationships.

- To offer the young one, whatever his situation in the enterprise (from management to basic staff) the means to appropriate himself with the objectives and to know the methods and the staff (a).

Inheritance from taylorism and with the sectorisation of production chains and the separation of tasks, the organisation of work is still very little interactive between people. The processes and economical necessities (even financial) link the workers with each other. It is a pity that when a youngster is employed he has a predefined job even before he can see the objectives and the methods of the different departments (at least of those close to him). Such as that of an enterprise in electrical technology, a manager fresh from his prestigious school of engineering, was integrated in a team of old and experienced technicians and wanted to apply his methods without even listening. As a result, the team made a fool of him, then the eldest complained at a meeting, and the engineer preferred to leave the enterprise.

Would it not have been simpler, institutionally speaking, to dedicate time to listen and train, knowing that the difference in study levels was aggravated by a conflict between generations that could have been dealt with amicably.

- To show managers the value of knowledge acquired through experience (b and c)

The value of the knowledge acquired through experience varies from enterprise to enterprise. In spite of submission to procedures, the administrations take it into consideration. Every one will agree with that value. However, the profit often remains very discursive whilst that knowledge must be quantified. But how to convince leaders, in reality, about the numerical value of that knowledge?

Would it not be interesting to help financially and institutionally the work of quantitative research on the value of experience? How? Not with classical tools based on analytic and precise methods, but with probabilistic tools, which lean upon recent theories of information and on the systemic. This profit will not be calculated with the precision of a numerical machine, but within a framework of the limits of uncertainty, which can be possibly determined. The tools are yet to be created.

- To remember the capital of an enterprise and the market value of information (c)

The previous proposal is not utopic or unrealisable. If the notion of capital has become a simple reference to material and financial assets of an enterprise, it has lost its first meaning: the whole wealth of an enterprise. Yet that wealth integrates the working men and women, and consequently the knowledge, the information, the experience and maybe even these little extras called tolerance and fair-play in relationships. If these extras are difficult to identify, we know however how their absence will restrain communication: a teenager suffers more insomnia from the problems of communication than from technical problems. The valorisation of these various humans benefits must be said and explained to the leaders and company managers who, often, are aware of it but have no time to think about it or words to express it.

- To invite retiring personal to write, transcript and reread acquired knowledge (c)

The examples given in the introduction (transmission of address books for instance, or on the contrary, loss of information about experience) propose to the retiring staff leaving an enterprise to write professional evaluations about their knowledge. Centers of evaluation exist, but most of the time they are meant to help a man or a woman to reflect ontheir career. In France for example, they are supported by the state.

Why not equally create *centres to help pre-retired to write down their knowledge* realistically in order to benefit the enterprise that employed them and transmit this to the new arrivals.It will be beneficial for all (except the competitive enterprises which will not use such transmissions)…The new staff of course, the enterprise itself, and also the pre-retired who, as it has been said in the first part of this axis, do not want an abrupt break from their former life.

- To managers and the DRH to multi-dimensionality available through age and experience. To fight against the "unaire and linear" thinking process (c and d)

More profoundly, if it is important to follow the manager in major decisions, it is essential that each actor of an enterprise expresses his or her rhythm and his or her perception of time and duration. The vision of a young manager is not the same ad that of an old or of a secretary. Yet, everyone carries a representation of the time of the enterprise which is not the same for all, without forgetting of course the importance of private and subjective time.

As they say: "time is money", and there is a way to earn money by investing it into *the training of the managers and of the directors of human resources of multiple durations* of the staff according to their ages and experiences. Why? Because the meeting expressed in words, of these durations, rhythms, and time representations allows, at the same time, to erase misunderstanding or tiredness on one side, and to raise creativity through the sudden arrival of unforeseen ideas.

- To enlarge the space for personnel and encourage the recruitment of managers trained in human and ecological sciences –in the scientific meaning of the word- (d)

In connexion with the next chapter, this last proposal is an appeal to quit the system consisting in trust of specialists in sciences so called "exact" to manage companies. A technician at senior level is not necessarily a man ready to fight the multi dimensionality of the universe of the company: social management, communication, information, empirisms, fair-play and honesty in human relationships, are as important as technology, marketing and other commercial techniques and administrative procedures.

The management of an enterprise has targets and precise demands, but, at the same time, placed in the middle of a socio-human complex, resembles more to a living cell than to a microcomputer or a machine.

IV. The time of ecology.

When we consider the history of nature the time of ecosystems can offer, to a certain extent, an appropriate analogy of durable development. However, some precautions would be relevant to avoid transformation of durable development, sociological concept (quite) recent and current, into a parameter of biology and scientific ecology. This caution goes beyond the limits of this work.
Nevertheless, because it has focused on laudable reasons human specificity and personal creativity as a first set of its values, the West has forgotten for three centuries its biological and ecological origin by separating man and nature: science, technology and their economical and industrial consequences, philosophy of the subject and of liberty, liberation of the private and imaginative space, contractual right, urbanisation etc. inherit initial dualism. The choice by the western system cannot be blamed, on the contrary, as the whole planet is progressively adopting numerous acquisitions. But it is excessively careless: the ecological protestation of a "revolt" from nature and of political demands seems to counterbalance the presupposed of the place of the body and of the biosphere in the human and social being.   However, the protestation will only be effective when it integrates with scientific ecological research and on the other hand if simplisms are renounced in order to be aware of the complexity and the duration when we educate for an authentic ecology.

The following propositions invite us to make those questions progress. We will have to be aware of the necessity to integrate a method progressively in order not to fall into the platitude of a collection of practices simply desired.

4.1. *Ecology, first science of complexity. Proposals for the education of ecology.*

- To put curiosity and wonder in the first place, before critical analysis. (a)

This proposition is addressed to *pedagogues and to scientists* on one part and to *those organising the knowledge to be taught* on the other. The wonder of the spectacle of nature and human adventure goes though the feelings, imagination and experimentation. The teachers and educators are recommended to offer their students possibilities to go through the various fields from which science has been researched and studied: nature with its various aspects, research laboratories, production lines in enterprises, famous scientific museums or cities.

Consequently, financial organisations will open additional credits for these meetings and teaching methods, so that they will not be accessory but essential for the teaching process. The teaching establishment will make their timetables flexible and employ management staff. The necessary services to protect itself from risks and the unforeseen will consider the elaboration of new contracts. And at last, the training institutes will propose courses enabling future teachers to adapt themselves to those new techniques.

- To give ecology the first place in the whole of knowledge and not an ancillary place to biology. (a)

Here, the present trend directly leans towards the *research and teaching institutions*: in France for example, the college de France and the CNRS, l'Education Nationale and the universities. It is vast and precise at the same time. Vast because it disrupts an organisation of knowledge which has existed for several generations: the so-called hard and analytic sciences based on knowledge, the so-called flexible, human and synthetic sciences considered as simple and secondary colourations. The scientific ecology being at the interactive crossroads of nearly all sciences, from economy to physics has precisely the advantage on all other knowledge. According to this, restructurisation
cannot take place to the detriment of traditional knowledge, but as a mode of thinking.

Concretely, this proposal is based on two precise praxis.

(1) On one hand to integrate from childhood scientific ecology into teaching and consequently diminish the weight of the other sciences.

(2) On the other hand to invest financially into ecological research (pedagogically and scientifically at the same time) and into teacher training.

- To give back value to scientific ecology with a view to counter balance the naïve ecological slogans of politics. (a)

Ecology is still very emotional in numerous countries; it is said to be romantic by many people. In order to repress those reductive and simple ideologies, the present proposition appeals to the vectors of communication (authors of articles and scientific journalists) as well as to responsible politicians. There is in fact a paradox between the slogan spirit that characterises political propaganda and the inherent complexity of ecosystems. Sometimes, even in ignorance, some militants of so- called green parties express childish ideas in order to be more effective instead of being based on the exigency of ecosystems.

Practically, the proposition appeals to the institutes of scientific research and journalism schools. To allow scientific ecology to take a central place, the authors of articles in the scientific publications are invited to contextualise their research systematically within a wider vision of their knowledge. The writing of a scientific article must therefore be the object of a scientific training, which avoids, if possible, to camouflage knowledge behind a conceptual, often incomprehensible façade. The scientific journalists, on their side, quite sensitive to these questions, will have less difficulty to link the content of their communication with the public's expectations. The relativisation of the experts jargon is another benefit of this kind of communication.

In the training institutes of politicians and high officials the ecological method must be systematically registered and compulsory. In the future the representatives of all parties and all disciplines as well as the large administrations will take heart to listen to an interactive science. Nowadays, the political organisation is still dependent on ancient presuppositions, which consist of separate and opposing ideas. That step remains necessary but it must be contextualised in a wider environment that is a public forum which could be called "organic": the relation and the process prevail over the abstract ideas and the identitarian claims, therefore without denying them. Listening to scientific ecology is an excellent didactician.

- To integrate the history of nature, representations of nature and human relationships to nature into the teaching of history with a view to a better understanding of the present situation. (b)

The teaching of history has considerably evolved over the last decades, under the influence of social and economic sciences. The next great revolution must be the integration of the history of human relations to nature. Contrary to general thinking, the human relation to nature is a key object for a comprehension of the culture of people or a nation. In the same way it allows a better understanding of the western culture, which proposes a particular but very rich approach to that relation. Such an approach will help without any doubt, the next generation to think of the future with a creative distance.

To help such a setting the *conceptors of history programmes* are proposed to rearticulate the pedagogy in accordance with history of science and technical practices on the one side and on the other with the system of symbols, which supports those practices. All the parameters expressing or symbolising the cultural relationships to their natural environment must therefore be integrated: agricultural techniques, relationship to the vegetal and animal world, perception of the universe, religious supporting symbols explicit or implicit philosophies. This hard work can be made easier by acquiring global methods like those proceeding from ecological, systematic and hermeneutic sciences (sciences of interpretation).

- To integrate all teaching in a more general context for students to assimilate – to increase their consciousness of responsibility for the future. (b and c)

The capitalisation of present day knowledge and its de-integration prevent the student from adapting what he studies. Only those having the opportunity to achieve long studies such as a thesis or an aggregation, or those being engaged in research services succeed in unifying some acquired knowledge..
Moreover the students following two distinct courses appear to show more creativity than the pure specialists of one discipline. The present proposal is aware of the fact that students, pupils or people in training are not concerned by the impact and the future of techniques derived from capitalised knowledge

In order to remedy those inefficiencies, *the teaching and training institutions* are suggested to develop compulsorily and not under an optional form, the possibility of complementary teaching in parallel with the speciality of the students in training. This should preferably be carried out with personalised support. The appreciation at the end of the studies will integrate those courses to a value equal or close to the given speciality. Therefore, the value of a young engineer's degree will be relative to the quality of work on the Hindu's sociology or philosophy as well as to his speciality in electrical engineering. If so, a degree of medicine will be appreciated according to the speciality in heart surgery, but also in accordance with the symbolics of pain according to the cultures. The complementary courses aim to remove the specialist from his field and by doing so to embark on a reflexive process. Therefore, the student will adapt his work and welcome other approaches.

Financially and institutionally speaking, the present proposition encourages the engagement of a supporting staff for the people in training. It offers to pedagogy the possibility of investing new tools and new research

-To keep the door open for permanent attention to historical and planetary events in ecological prevision. To construct differential methods. (c)

The evaluative human activity (industrialisation, greenhouse effect,) and political events (Fall of the Berlin Wall, the Gulf War, 11 September 2001 and consequent events) have an influence upon the biosphere and the local ecosystems: pollution of the Persian Gulf, abandonment of nuclear sites, risk of new diseases, urbanistic conception, etc.

The present proposal inverts the approach to the preceding propositions. It applies to *the experts of ecological science* itself and of its total environment. As scientific ecologists are used to long term thinking they sometimes find it difficult to understand and to assimilate the planetarian shocks of human events. One only has to see how many broadcasts with an ecological ambition often have discouraging conclusions about the human activity in nature. This is also valuable on a small scale.

To build up different methods consists of integrating the discontinuous time of human events as possible disturbances of ecosystems. As ecology is usually based on balance and regulation, the ecological research has to make use of tools to understand at which level the destabilisations and the possible bifurcations of an ecosystem take place and the means to recreate regulation processes. It consequently requires a probable approach inside of which extreme situations will be considered and suitable solutions foreseen.

In the long term, one has to make scientific ecology, marked by biology and naturalism, equally a human science.

- To learn the connexion and the necessary tension between equilibrium and local demand and global organic representation. (notably on a planetary scale) (d)

The quarrel about mondialisation and the claims for local identity became a major dispute at the beginning of this century. But without getting to those extremes, the daily management of local collectivity is a permanent headache, facing the contradictory demands, local on the one side, of global and public interest on the other. The previous proposition mainly appeals *to politicians* and to important *national and international administrations.*

How to manage? An effort of sensitisation and communication is necessary to valorise- and not to depreciate- the tension. The inherent violence of that tension has to be directed by the development of public speech training and by the incitement to create public democratic forums. The point is to put extreme polarities into debate, accepting that solutions do not necessarily exist at first sight. This proposition widens to the meaning of a democratic debate. In the organisation of these sensitisation and debates which raise various tensions, the care of the close environment can be a necessary counterweight, that means for example to re-examine the organisation of numerous meetings at night, in dusty and awful premises.

-   To educate to complexity and to focus on global vision from childhood. (d)

In the past, global and syllabic methods for the apprenticeship of reading were opposed. Today the pedagogies have assimilated both methods. The same exercise is possible to teach a child how to think of a global view of the Planet without denying his local responsibilities.

From childhood on, nursery or primary, it is absolutely necessary to give the
child information about life on the whole Planet and the fragility of the biosphere. Therefore the training of the teaching staff as well as the consciousness of the parents and tutors is essential. The finances of primary schools often depend on local administrations which, overworked, have no time to think about such problems. The action towards children has to be double: on the one hand to make schools aware, on the other hand to show the importance of those global approaches to the local financers. The inherent contradictions of those situations can be a good didactic means to make children and adults understand the organic complexity and the importance of duration in the resolution of numerous questions.

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COMMENTS ON THE STRUCTURE OF PROGRAMMES AND ON TEACHING INSTITUTIONS

To study this chapter thoroughly let us read again the academic teaching programmes and still more the metamorphoses that have appeared for about thirty years in the European countries. The academic programmes have separated scientific knowledge into closed subjects: physics, chemistry, maths, electronics, computer, biology, geology and have stressed upon an abstract and nearly divine approach to their teaching. For the students sciences seem to fall from heaven and the transmission of their acquired knowledge looks like an eternal ritual, which is invariably repeated from one year to another other. And yet the teacher is aware of the evolution of his science, but he has not acquired the necessary concepts for the intellectual perception of this evolution. Why? Because science itself has been transmitted outside any historical, political and socio-economical context, a double fork can be sensed since the first university year and sometimes before the end of secondary school: on the one hand discrimination of speciality with regard to other disciplines has taken place; on the other hand the quantity of acquired information by the specialist (concerning this speciality) conceals (all the rest) the field of other knowledge and experiences. The same specialist being extremely acute and forceful in a branch of biology will express himself with a striking infantilism on a problem of society. The phenomenon is increased by the surrounding hierarchy, which places the sciences at the top

The opposite is true. Many people trained in human sciences including politicians and sociologists are ignorant of the natural science, which shows uneasiness in front of the experts or a futile classification of acquired knowledge.

The proposals as a whole want to place ecology at the first level, not for mere political reasons, but because ecology is an interactive and concrete science: it demands dialogue and a focus on relations of disciplines, and

beyond discipline, it needs numerous participants. So an analysis of a mountain ecosystem will appeal to geologists, physicians, chemists, botanists, but also to local representatives, enterprises, shepherd, farmers, tourist organisations and to the old highlander who walks in it every day. To all that it would be useful to add an historian of the region..

4.2. *Ecology, the human sphere and fieldwork.*

ILLUSTRATIVE AND INTRODUCTIVE INTERROGATION.

During the symposium organised in Belgium, the case of the forester was recalled as well as the different tasks concerning the maintenance of a forest. It excellently illustrates the multi-polarity by a work in direct relation with ecology. But the management of an ecosystem is not only concerned with nature, lovely trees and beasts to be preserved but also a question of evolution of the analysis methods and attitude of mind as was developed in the previous chapter

The forester who is paid by an inter- communal and public organisation is responsible for the continuation and improvement of a forest, part of which, belong to private owner and other parts rest on several communes.

The first established fact is in a relation with concordance of multi time concerning the forest itself. The private owners think on a scale of several decades: the forest must be varied, pretty and transmitted to heirs as a valuable patrimony. The communes whose representatives are bound at the same time to political issues and to economical pressures consider that same forest on a scale covering many years. On one side it has to be maintained as communal patrimony, on the other side it has to be managed and be economically viable. The paper industry, which pressurises the communes, would like a quick profitability and a choice for the renewal of the forest towards the production of pine trees to the detriment of leafy trees. Its regrowth period is a maximum of four to five years. Moreover an ancestral custom exists, which, every year, allows ten people per commune (on their request, then balloted) to cut five ares of forest for their personal use. The forester is among other things, charged to distribute the areas to be cut. But a rather noisy pressure group of political ecology must be added to those demands, not only by their number but also by the notability of the people who insist on an enrichment of the local biotope and permanent scientific care. Last but not least the local tourist office wants to (open up) clear the forest either for the organisation of picnics and long distance running or for mountain bike tracks. The temporality of the office is limited to the next months. The forester focuses on all these demands.

Anxious to collaborate efficiently the administration paying the forester agrees to regular meetings with the different participants. However, it imposes incompatible timetables; the representatives are only free in the evening; the private owners and the staff of the paper industry are willing to make an effort to come at night as they like to work with the commune but the latter want to avoid discord with the ecological association- The members of the tourist office who are mostly retired and unpaid are available and say they are satisfied with the decisions taken by the other participants, but they want to be informed to give their written suggestions. As a result of this story the dossiers are impeded and do not progress and the daily decisions are taken without thorough reflection.
The forester complains of a lack of coherence and unfortunately fears that the economical pressure may have the upper hand on the other demands.

- **To learn to work systematically the multi-dimensionality of all projects. (a)**

The forester's case shows the necessity of a multi-polar collaboration in the maintenance of the natural patrimony. We are able to ask the question if such an approach is universabilisable to all ecological projects. The answer is that it must be generalised to maximum, not only for strictly ecological reasons but also to improve methods of more global and organic analysis where enlightened bodies meet each other, discuss and enrich themselves.

As one of the axes is to give the taste of development, the present proposition suggests spreading the idea according to which, time devoted to listen to various participants of a project is a productive time. The more the participants will express themselves according to their knowledge and desires, in a regulated setting to avoid distraction, the greater the chances to free the personal energies.

Practically, this could be:

(1) by a methodological research of people who are directly concerned (in this case the forester and his immediate environment) who, by their experience, can distinguish all the direct and secondary participants to the project: scientists, representatives ,associations, enterprises and inhabitants.

(2) by organising groups of work, informed, regular and convivial: when we say "informed" this means they are trained to global methods of analysis of complexity with all its dimensions (ecological, social and symbolic.) "Convivial "means that everything must be open for a mutual review of the participants. The objective is long term. The structure of those groups can take the form of an association, but would be preferable under an industrial form conducted by administrations concerned about the public patrimony.

(3) by information in situ (and not only on documents) of the tasks of the ecological problem to be treated.

(4) by a written document stating the will of the public administrators to co-operate with all the participants. Groups should be created to promote interest (and pleasure) in multi- polar approaches.

- To develop research towards a convergence of socio-economic interests and eco-systemic necessities. (a)

The following propositions express in which state of mind the multi-polar work can be realised.

The sudden appearance of ecology was at first in opposition to the economic and sometimes social claims that are linked to ecology. The human sphere being an emergence of the biosphere one has to admit that ecology cannot be total if it is only considered as a post-industrial current, which integrated the memory and the acquisitions of industrialisation. This point must appear as a presupposition accepted by all.

The work of ecological research public or private has to establish a charter according to which the propositions move in the sense of convergence between socio-economic interests and protection of environment will have to be in the most privileged and pertinent way possible. In practice there will be, without doubt, financial constraints and susceptibilities to be conciliated. But to privilege a priori a method of convergence in the mentality will help to solve those constraints and find the means to reason with more ecological standards in all respects.

- To give means (time and money) to the actors of an activity at the border between economy and ecology, to know the history of an ecosystem (in a wider meaning) and to foresee the space of its evolution. (b)

In the practice of evolution of mentalities previously proposed one of the major tools concerns the history of an ecosystem. The historic analysis allows various participants to discover the problems and evolutions in the process of time,

(1) on the one hand, to make an appropriate analysis (it means that every participant takes the project to heart) and an appreciation (to avoid a romantic ecology).The advantage of such an analysis is that scientists and "lovers" of the studied ecosystem will resolve to dialogue.

(2) on the other hand, in order to widen as much as possible the space of evolution and therefore avoid precipitation. The analysis of the future evolution of an ecological system must be expressed in terms of statistics

and probabilities (to open all the possibilities with their rate of success) and not in terms of univocity (all agree with one idea)

-   To link continuous duration and the different forms of time of ecosystems with the discontinuity created by human intervention. (c and d)

The historical analysis proposed above must not only be content with the linearity past-present with a view to the future. The human intervention is disturbing because its demands are not of the same temporal order as the natural rhythm. However, it has been proved that human intervention is sometimes more enriching than disturbing, ecologically speaking, if the responsive time of the ecosystem is submitted to another scale instead of the one of human intervention. In each case it is important to measure the positive as well as the negative impacts of human intervention. What to do:

(1) spread the word to scientists on the matter (they will be able to compare other similar or comparable cases) They will be able to perceive the enrichment and the diversification of the system.

(2) to come back constantly to the history of the studied system. Also recall the idea that the human society is part of the ecosystem itself.

(3) to do permanent work giving information to the local populations, not only through documents distributed through letter boxes, but with the help of new media, of public meetings and by a participation in fieldwork This information must express all points of view, even if they are contradictory. In the case of the forester for example, informing inhabitants of the communes means that they can listen to the supporters of the ecological association as well as to the apology of the economic necessities..

-   To invite the leaders and administrators to collaborate with the actors of a project to maintain an equilibrium

This has already been said above. This proposition proposes to work on the evolution of numerous administrative mentalities, which often make decisions in the offices without a confrontation or a direct consultation (from person to person) with the participants.
This evolution is possible if:

(1) the link between general and particular interests is well explained, by taking into account the necessary tensions. It is important to give the tensions a positive value as they generate verbal exchange, the different viewpoints and thus delimitations of the workspace. In any analysis of an ecological problem, the consensus is more dangerous because it denies complexity

(2) the administration itself, through targeted people, is the first that is responsible for the coherence of the working groups (before the representatives, the private sector, the militants and the unpaid). However, owing to the risks of integration of responsibility, this implies that it should be regularly present in the field so that, in the last resort, the general interest would prevail after expression of all tensions.

(3) the decisions taken are most certainly respected by all the participants but they depend on unforeseen events. For instance the case of the forest, the appearance of a new species, the damage of areas by " cross country vehicles" or a particular request from the tourism office. Establishing what those unforeseen events are will be necessary, how they have to be linked to the decisions of the whole so they will not generate a major crisis (calling the work realised into question).

-   To analyse the difficulties to reach agreement about different times: the authority's time, the demanded practical time, the leisure time.(d)

A large practical problem: the organisation of timetables of all participants is an essential problem to be resolved. Civil servants, unpaid people, representatives do not work to the same rhythm and at the same times or with the same interests: some public employees are paid, some are unpaid, and others are paid for serving private interests.

(1) The evolution of communication techniques, Internet and web cam can be of help for efficient and punctual collaboration but they are not sufficient aid for direct confrontation.

(2) In all cases the institutionalisation has to give rise to a concerted financial contribution to working meetings, a sufficient compensation for some, supplementary hour for others, in order to avoid any imbalance in human relations.

CONCLUSION.

Everyone will have understood it: the relation of time and duration with ecological space infers several aspects that can't be avoided.

(1) The complexity of the problem requires an initial education and a continuous training, not only on the methodological tools, but also on reality grounds.

(2) Ecology must think with regard to the socio-economic and the abandonment of any romantic sentimentalism.

(3) The collaboration among participants must be made with pertinence and without any precipitation (management of duration) considering the duration of contradictory interests that must be learned to relate.

(4) Exchange and communication must prevail over ideas and representations. On the contrary for example a traditional scientific work, the management of ecological systems belongs to the public forum. The final decision has to privilege the general interest. (that is natural and citizen).

(5) The decisions taken must be prepared for evolutions and unforeseen events.

PERSPECTIVES

Organised by the Foundation for Future Generation of Namur in Belgium, a series of seminars, symposiums and conferences were held over a period to think about time and durable development in multi directional fields (politics, economy, ecology, society and private). The research carried out gave rise to the publishing of a book in course of publication at the Editions of the FPH in Paris. The present document is a continuation of this first work, through a personalised re-read external to the previous realisation

The relation of men, communities, institutions or enterprise in the occidental culture is time sick. Without pretending to be exhaustive, we will point out some expressions of this pathology of time: submission of all temporalities (nature, body, subjectivity, creation, sociological rhythm) to technological time: schemes and linear processes; worry about time passing by, permanent escape without duration, without evaluation and re-reading the memory of events; domination of the catch-word "rime is money"; blindness of politicians and administration foremost in the acceleration of events, knowledge and mentality; absence of communication amongst the multiples fragmentation of time; separation of living spaces which leads to fragmentation of time; excess of mediatised communication, with its mediatised rituals to the prejudice of inter-personal communication where time savours and reflects… The list could be prolonged through pages "ad infinitum". This count down is not only a summary of defects or excess of practice, but more likely the sign of an affection of mentality. In other words, it is not about a maladjustment problem to reality, to use the terminology of the FPH, but more a structural problem.

The objectives of the book.

The first aim of this book **is the metamorphosis of mentality**. It proposes to give oneself the means of a method to reconciliate with time and to link it with duration not to become an eternalised ideal or a repetitive cycle. The change of the look inferred from the methodological reflection has concrete prolongations for everyday practice and for global forecast of the future of the Planet. Conversely, the practice, the witnesses, the real difficulties often linked to simplified approaches will adjust the elements of the suggested method. Through the reading of the present file, the reader will have to understand that the evolution of mentality relates to a live methodology, more concerned with permanent interaction, exchange of information, complexity and regulation than with a methodology of a representation in which each dimension of reality and knowledge is classified in predetermined models.

The method: 4 axes as a guide for all proposals.

The method leans on four proposals, which will be used as axes for the whole file

(1)The first axis is a mind resolution. It proposes to raise the value of **positivity of   time and the desire for durable development.** As the relation to time and duration is   sick, we propose a therapy without acting, with a determined and positive mind with   the risk of delay or annihilation of the healing process. Anyway, the look to the future   has to be "a priori" astonished, confident and alive (Methodological axis a)

(2) The second axis consists in breaking the fixed and escaping line "past-present-   future" which characterises the agreed and thoughtless perception of time. The present   appears then as an unreachable simple point on a continuous line. **Yet the present has   to become the mediation and the passionate and critical return of all reflection of   time and duration.** One has therefore to replace the line "past-present-future" by the   spiral and reflexive present-past-future where present is the untiring gravitational   force. (Axis b)

(3) The line of time is not continuous. The instantaneous schemes do not stop duration. On the contrary, the permanent irruption of novelty is not always a guarantee for the   quality of the future. A methodology on time and durable development suggests **to   look out for the unforeseen event (positive or negative) as a disturbing factor of   programming and of linear schemes.** In other words, it is important to disconnect   the time for our submission to space and continuity, whilst we keep a critical view   upon the naivety of the cult for novelty. (Axis c)

(4) There is not one time, but many sensations, perceptions, expressions and   realisation of time. Any analysis and any action has to try to make evident the multiple   temporalities present in the equation and the resolution of a problem, then to   reorganise them to avoid hypertrophies of some time and asphyxia of some other time.   Consequently, the aim is to work on the "**concordance of time".** (Axis d

Particularities of this book of proposals.

The present document is not directly concerning the world of reality, but the reflection-praxis interface. It is consequently positioned upstream of the immediate praxis. It is essentially interactive between the demands of the concrete world and more general and abstract intentions. Consequently, it is aimed strongly towards **educational objectives and transformations in training courses and evolutionary methods and mentality**. No great expectations for recipes or solutions, but elements enabling us to step back from increasing methods of discernment of time and duration, and to offer indications and roads to transform these methods.

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The methodological axes are explained in four significative directions, non exhaustive. In the document, proposals, precise examples are given, either to illustrate the matter, either as a signal opening diverse suggestions.

I. Time and space in the socio-economical world.

 1.1 Humanise the working time in social and medical practice. Because of frequent discouragement and economical pressure, the social and medical professions represent significant grounds for the sickness of time and duration., to restore a taste for social and medical work by integrating it into a larger meaning than the immediate, to teach the medical profession to reconciliate patients or marginals with their history, to enlarge psychological education to the question of the meaning, to go away from the mentality of mechanical work and therapeutic efficiency represent an ensemble of initiatives to propose to practitioners and to institutes and other training environment
In substance, it is important to restore values and costs to non-direct productive times.

1.2. *To enlarge the space and duration of education.* To show the importance of educational time not only to meet the socio-economical demand, but also to cultivate curiosity and pleasure to learn, to make the person on a course an actor of his approach, to fight against "programmarchie",to offer to persons during the courses the means to appropriate to themselves the tools acquired during the course, to leave the educator more freedom of movement and more creativity, to teach the educators not only about coherence, but also about the discontinuities and the benefits of their teaching and experience, to articulate the whole of a course on the multiple temporalities hidden in timeless teaching process.

II. Time and communication

2.1.*Time and acceleration of images.* The present proposals concern all of us , consumers, creators actors and producers of the media,, also conscious of the children's look upon it, and invite to reconciliate time and duration with the increasing flow of images. Many roads are open: to give an esthetical taste for the image and to show the novelty of the multimedia and iconographic culture, to learn the distinction between quality and emotional strength of the image and its ethic and educational far-reaching effect, not to dread emotion, nor be invaded by it, to dismantle the framework of publicity of informative message in order to focus on the different crossways introduced by the intervention of a human programmer, to re-read group history of communication, to systematically integrate the positive value of the future, however the appearances, and to denounce sensationalism which generates fear, to emphasize other points of view and the different rhythms hidden behind the stream of images, to integrate the culture of the image in the whole human activity, or even ecosystemic.

2.2 *Time for surveys. Raising awareness of conscience in rulers and politicians.* In times of survey domination, it is important to sensitise statistical processes, to discern it from classical scientific procedure, to train managers and politicians to awake and listen to minorities, to create forums (mediatic or informal: street, association, etc) to meet majority groups and minorities, to prefer dialogue to general schemes, to learn to read history and past problems before analysing surveys, to relativise the surveys to a global project.

III. Time and inter-generational

3.1 How to raise the consciousness and create space of language for the inter-generational? Some suggestions: To restore the values and the price of experience and duration, to work on informing the radical novelty of the inter-generational co-existence in history, to create informal spaces where generations can meet, outside of the private space, to learn not to fear conflicts and incomprehension, to fight against the spirit of consensus now existing which is without interactive verbal exchange or depth, to try to solve the inter-generational violence through education and dialogue, to fight against dictatorship of the "new" and the myth of "youth", and in reciprocity, to fight against timeless integrism, to have the generations meeting in their space of life, to teach complementarities and conscience of the shifts of times and mentalitie*s.*

3.2. Time to listen to the presupposed of the different generations in the enterprise world. The whole problem of circulation of information in enterprises is the non-transmission of knowledge of the seniors. Here are some concrete proposals for the development of knowledge and mentality: to give to any young worker starting in an enterprise information about the history of the enterprise and its integration in the social and local landscape, to offer the young one, whatever his situation in the enterprise (from management to basic staff) the means to appropriate himself with the objectives and to know the methods and the staff, to show the employers the value of knowledge acquired through experience, to remember the capital of an enterprise and the market value of information, to invite retiring personnel to write, transcript and re-read acquired knowledge, to train the managers and the DRH to multi-dimensionality available through age and experience, to enlarge the space for personnel and encourage the recruitment of managers trained in human and ecological sciences-(in the scientific meaning of the word).

IV. Time for ecology.

4.1. Ecology, the first complex science. Proposals for ecological education. Focus point of all considerations of this book, this part proposes attitudes for a concrete methodology: to place curiosity and wonder first and foremost for knowledge before critical analysis, to give ecology a primary importance in knowledge, not the ancillary position of biology, to give back to ecology its scientific value to counter balance the naï ve ecological slogans of politicians, to integrate the history of nature, representations of nature and the relationship of man to nature in the teaching of history for a better understanding of the present situation, to integrate all teaching in a more general context for students to assimilate- to increase their consciousness of responsibility for the future, to keep the door open for permanent attention to historical and planetary events in ecological prevision, to learn the connection and the necessary tension between equilibrium and local demands and global organic representation (notably on a planetary scale), to educate to complexity and to focus on global vision from childhood.

4.2. Ecology, the human sphere and practical experience. Starting with a concrete example (the management of a forest), the following proposals are connected: to learn to work systematically the multi-dimensionality of all

projects, to develop research towards a convergence of socio-economic interests and eco-systemic necessities, to give means (time and money) to the actors of an activity at the border between economy and ecology, to know the historic of an ecosystem (in the wider meaning) and to foresee the space of its evolution, to link continuous duration and the different forms of time of ecosystems with the discontinuity created by human intervention, to invite the leaders and administrators to collaborate with the actors of a project to maintain an equilibrium, to analyse the difficulties to reach agreement about different times: the authority's time, the imposed practical time, the leisure time.