

# Récoltes et Semailles

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## Part I

# Presentation of the Themes or Prelude in Four Movements

# Chapter 1

## By Way of a Foreword

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Only the foreword remained to be written before entrusting *Récoltes et Semailles* to the publisher. And I swear that I was really willing to write something that serves the purpose. Something *reasonable*, this time. Three four pages, not more, but well expressed, presenting this enormous “tome” of more than thousand pages. Something which “catches a glimpse” of the blasé reader, which makes him foresee that in these little reassuring “more than thousand pages”, there could be things which interest him (or even, concern him, who knows?). It is not really my style to get someone hooked, it isn’t. But here I planned to make an exception for once! It was necessary that “the editor crazy enough to seek adventure” (of publishing this obviously unpublishable monster) recovers his expenses somehow.

And finally no, it did not happen. I have tried my best though. And not just one afternoon, as I was planning to do it, quickly. Tomorrow it will be exactly three weeks since I am on it and the sheets are piling up. The outcome, certainly, is not what might be called a decent “foreword”. *It is still no good, decidedly! One can no longer change how one is made, at my age and I am not made that way, to sell or get something sold. Even when it is a question of pleasing (oneself, and friends...).*

What resulted was a sort of long “promenade” with commentary, through my oeuvre as a mathematician. A promenade intended especially to the ‘layman’— to one who ‘never understood anything in maths’. And for me, too, who never had the leisure for such a walk. One thing leading to another, I saw myself leading to extricate and say things that hitherto always had remained unsaid. Coincidentally, these are also the ones I feel the most essential in my work and my oeuvre. There are things that have nothing technical about them. [It is] for you to see if I have succeeded in my naive enterprise ‘to get them across’—a bit crazy enterprise for sure. My satisfaction and pleasure, however, would be to know that I have made you feel them. Things that many of my learned colleagues no longer know how to feel. Perhaps they have become too wise and too prestigious. This makes one to lose contact, often, with the simple and essential things.

During this “promenade through an oeuvre”, I speak a bit about my life as well. And a little bit here and there, of what *Récoltes et Semailles* is about. I’ll discuss it again and in a more detailed manner, in the “Letter” (dated May last year) which follows the “Promenade”. This

Letter was intended to my former students and to my “old friends” in the mathematical world. But it is not technical as well. It can be read without problem by any reader who is interested in learning, through a “live” account, the ins and outs which eventually led me to write *Récoltes et Semailles*. Even more than the Promenade, it will also give you a foretaste of a certain ambience, in the “big world” of mathematics. And also (like the Promenade), of my style of expression, a bit special it seems. And of the spirit too, which is expressed in this style – a spirit that is not appreciated by everyone.

In the promenade and almost everywhere in *Récoltes et Semailles*, I speak about the *mathematical work*. This is the work which I know well and first hand. Most of the things that I say are true, surely, for any creative work, [and] any work of discovery. It is at least true for the so-called “intellectual” work, the one which is mostly done “by the head”, and in writing. Such a work is marked by the blooming and blossoming of a *comprehension* of the things we are probing into. But to take an example at the opposite end, the passion of love is the urge for discovery as well. It opens up the so-called “carnal” knowledge to us, which also renews, flourishes and deepens. These two impulses – the one which, in our opinion, enlivens the mathematician at work, and that in a lover – are much closer than we generally suspect, or are willing to admit to ourselves. I hope that the pages of *Récoltes et Semailles* can contribute to make you feel it, in your work and in your everyday life.

Throughout the Promenade, it will mainly be about the mathematical work itself. On the other hand, I remain virtually silent on the *context* in which this work takes place, and on the *motivations* which play a role outside the actual working hours. This risks giving myself, or to the mathematician or the “scientist” in general, a certain flattering, but distorted, image. “Great and noble passion” kind, without any sort of correction. Along the lines, in short, of the great “Myth of Science” (with a capital *S*, if you like!). The heroic, “Promethean” myth, into which writers and scholars are vying (and continue to vie) with one another to fall over and over again. It is only the historians, perhaps, who are sometimes resistant, to such seductive myth. The truth, is that in the motivations “of the scientist”, which sometimes push him to work without measure, ambition and vanity play as important and almost universal a role as in any other profession. It takes more or less coarse, more or less subtle, forms depending on the person concerned. I do not pretend to be an exception. The reading of my testimony, I hope, will leave no doubt about this.

It is also true that the most devouring ambition is helpless to discover the slightest mathematical statement, or to demonstrate it – just as it is powerless (for example) to “have a hard-on” (in the proper sense of the term). Whether a woman or a man, what “makes one hard” is by no means the ambition, the desire to shine, to exhibit a puissance, in this case sexual – quite the contrary! But it is the acute perception of something strong, very real and very delicate at the same time. One may call it “beauty”, and it is one of its thousand faces. Being ambitious does not necessarily prevent you from occasionally experiencing the beauty of a being, or of a thing, I agree. But what is certain, is that it is *not* the ambition that makes us feel it...

The man who first discovered and mastered fire, was someone exactly like you and me. Not at all what one imagines under the name of “hero”, “demigod” and so on. Surely, like you and me, he knew the bite of anguish, and experienced vanity ointment, which makes you forget the bite. But when he “knew” fire, there was no fear, no vanity. Such is the truth in the heroic myth. The myth becomes insipid, it becomes ointment, when it is used to hide *other* aspects of the things, just as real and just as essential.

My purpose in *Récoltes et Semailles* is to speak about this aspect and the other—the impulse of knowledge, and the fear and its vain antidotes. I believe I “understand”, or at least know the impulse and its nature. (Perhaps one day I will discover myself, amazed, to what extent I was deluding myself...) But in case of fear and vanity, and insidious blockages of creativity derived therefrom, I know I have not been to the depth of this great enigma. And I don’t know if I’ll ever see the depth of this mystery, in the years which remain for me to live...

In the course of writing of *Récoltes et Semailles* two pictures appeared, to represent both these aspects of human adventure. These are the *child* (alias the *worker*), and the *Boss*. In the promenade that we are going to take now, almost exclusively it will be about “the child”. He reappears again in the subtitle “**The Child and the Mother**”. This name is going to become clearer, I hope, in the course of the promenade.

On the contrary, in the rest of the reflection, it is mainly the Boss who takes the frontstage. He is the boss for a reason! It would be more accurate to say it’s not *one* Boss, but Bosses *of* rival enterprises. But it is also true that all the Bosses essentially resemble each other. And when you start talking about Bosses, it also means that there will be “villains”. In Part I of the reflection (“Fatuity and Renewal”, which follows this introduction, or the “Prelude in Four Movements”), mostly I am “the villain”. In the following three parts, it is mainly “the others”. Each will have their turn!

This means that there will be, in addition to deep philosophical thoughts and “confessions” (by no means contrite), some “vitriolic portraits” (to borrow the expression of one of my colleagues and friends, who found himself a bit mistreated...). Without accounting for the large-scale and extraordinary “operations”. Robert Jaulin<sup>1</sup> assured me (half jokingly) that in *Récoltes et Semailles* I am studying “the ethnology of mathematical milieu” (or perhaps sociology, I wouldn’t be able to say too much). One is obviously flattered, when one learns that (without even knowing it) one is doing scholarly things! It’s a fact that in the course of the ‘investigation’ part of the reflection (rather unwillingly...), I saw a good part of the mathematical establishment pass by in the pages I was writing, without counting many colleagues and friends with more modest status. And in recent months, since I sent the provisional drafts of *Récoltes et Semailles* last October, it “happened” again. Decidedly, my testimony generated ripples. **Truly speaking, there were little echoes on all tones (except that of boredom...)**. Almost every time, it was not at all what I would have expected. And there also has been a lot of silence, which speaks volumes. Noticeably, I had (and I still have) to learn more, and of all the colours, on what is going on in the nogginns of each other, among my ex-students and other more or less well-placed colleagues—excuse me, about the “sociology of the mathematical milieu” I wanted to say! To all those who have already come to make their contribution to the great sociological work of my old age, hereby I would like to express my grateful feelings.

Of course, I was particularly sensitive to the echoes in the warm tones. There were also some rare colleagues who shared with me an emotion, or a feeling of crisis (that remained unexpressed until then), or of degradation of the interior of the mathematical milieu which they feel they belong to.

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<sup>1</sup>Robert Jaulin is a friend from old times. I believed to understand that vis-à-vis the establishment of the ethnological milieu, he found himself in a situation (of “white wolf”) somewhat similar to mine vis-à-vis the “beautiful world” of mathematics.

Outside this milieu, among the first to give a warm, even emotional, welcome to my testimony I would like to name Sylvie and Catherine Chevalley<sup>2</sup>, Robert Jaulin, Stéphane Deligeorge, Christian Bourgois. If *Récoltes et Semailles* is going to get a wider distribution than that of the initial provisional printing (aimed at a more restrained circle), it is mainly thanks to them. Thanks especially to their communicative conviction that what I strived to grasp and say should have been said. And that this could be understood in a wider circle than that of my colleagues (often sullen or surly, and not at all willing to question themselves...). Thus Christian Bourgois did not hesitate to take the risk of publishing the unpublishable, and Stéphane Deligeorge, honoured me by welcoming my indigestible testimony in “Epistémé” collection, (for the moment) alongside Newton, Cuvier and Arago. (I could not ask for a better company!) I am pleased to convey my gratitude to each and everyone, for their repeated expressions of sympathy and trust, occurring at a particularly ‘sensitive’ time.

And here we are at the beginning of a promenade across an oeuvre, as an introduction for a voyage through a life. A long voyage indeed, of over a thousand pages, and each brimful. I put a lifetime to make this voyage, which is still incomplete, and more than a year to rediscover it, page after page. The words were sometimes hesitant to come, to express all the juice of an experience still eluding a hesitant comprehension—like thickly piled ripe grapes in the winepress which seem, at times, to want to evade the force which tries to embrace it... But even in the moments when words seem to jostle and pour in, it is not, however, by chance. Each of them was weighed in passing, or otherwise adjusted carefully later on if it was found too light or too heavy. So this reflection-testimony-voyage is not meant to be read quickly, in a day or in a month, by a reader who would hasten to come to the final word. There is *no* “last word”, no “conclusions” in *Récoltes et Semailles*, not more than what I have in my life, or you in yours. It’s a wine, aged for a lifetime in the casks of my being. The last glass that you’ll drink will be no better than the first or the hundredth. They are all “the same”, and they are all different. And if the first glass is spoiled, the whole cask is; then might as well drink some good water (if found), rather than bad wine.

But a good wine is not drunk in a hurry, nor off the cuff.

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<sup>2</sup>Sylvie and Catherine Chevalley are the widow and the daughter of Claude Chevalley, colleague and friend to whom the central part of *Récoltes et Semailles* (ReS III, “The Key to the Yin and Yang”) is dedicated. In several places of the reflection, I speak of him, and of the role he played in my itinerary.