

Baudolino in the twilight

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Baudolino, the last of Umberto Eco's novels, came to my hands—by chance—only a little after I had read the five essays gathered by the author in the delicious volume *Serendipities*.¹ I feel there is a deep relationship between the two books, and in fact I have always thought (with no pretention of certainty, but also no concern for it) that the essays were something like the 'preliminary research' that made it possible, indeed conceivable and desirable, to write the novel. This relationship would go much beyond the sharing of several important topics between the two works—Prester John's letter, the Earth's form, the bestiaries, etc. Rather, *Baudolino* and *Serendipities* (and this is, incidentally, the main idea of the present text) are both, among other things, 'pieces of epistemology:' studies on human knowledge.

To begin with, consider the following quotation from the preface to *Serendipities* (my italics):

In other words, I feel that what links the essays collected here is that they are about *ideas, projects, beliefs that exist in a twilight zone between common sense and lunacy, truth and error, visionary intelligence and what now seems to us stupidity, though it was not stupid in its day and we must therefore reconsider it with great respect.*²

Any reader of Eco's novels will easily grant that the novels too, and not only the *Serendipities*, answer to the quoted description. It is at first sight hard to imagine, for example, better instances of this 'twilight zone between common sense and lunacy' than

¹Umberto Eco, *Baudolino* (Milan: Romanzo Bompiani, 2000); *Serendipities: Language and Lunacy*, translated by William Weaver (New York: Harvest, 1999).

²*Idem*, p. ix.

such things as astrology, numerology, and cabala—precisely what *Foucault's Pendulum* explores and exploits.

But I shall propose that it is *Baudolino* that, among the four, owes the biggest part of its essence to the 'twilight zone.' A second reading of Eco's description of the latter calls the attention to the *historical* dimension he attaches to it—he says 'visionary,' 'now,' and 'in its day.' The 'stupidity' of cabala, however, is timeless, the minds that find it stupid today found it stupid in its day, and, more significantly, some survive who respect it today and always. The 'historical dimension' is barely applicable to these 'pseudo-scientific' (and this denomination will shortly become relevant) activities. With it, the reference is limited and excludes cabala: the preface to the *Serendipities* refers, precisely, to *science*.

Could there in fact be a better concise description of what 'science' is than, precisely, "ideas, projects, beliefs that exist in a twilight zone. . .," the emphasized part of the above quotation (including naturally the historical dimension)?³ It would be tempting to conclude that Eco himself, as he was writing these lines, was consciously describing science, were it not for the fact that common sense appears on the side of truth and intelligence,

³Curiously, the discussion about 'demarcation' between science and pseudo-science, so heated at the time of the Popper-Kuhn controversy, has paid little attention to this 'historical dimension' as an important criterion. A close inspection of this discussion reveals, however, that the historical dimension has always been in the background: after all, Popper's notion of 'falsification' is a way of leaving the door open to *future* discoveries, a 'diachronic license' disguised as a synchronic requirement. The point is clear if the criterion of falsification is taken in its negative form: a theory is *not* scientific if it is able to explain and incorporate *any* imaginable situation. In other words, if it is structurally immune to future discoveries. At any rate, it is remarkable that Popper (after all a man of his time) struggles so much to explain science's *progress* (with his rhetoric of 'learning from our mistakes,' masterly responded to by Kuhn in "Logic of Discovery or Psychology of Research," pages 266–292 of *The Essential Tension: Selected Studies in Scientific Tradition and Change* (Chicago and London: University of Chicago Press, 1977), esp. pp. 277ff.); and that, for a discontinuity-oriented view like Kuhn's, the very existence of this progress—which could be and has been doubted in non-Kuhnian readings of *The Structure of Scientific Revolutions*—is a hard nut to crack, one that he himself never really confronted directly. On the other hand, the 'historical dimension' is more explicit in Imre Lakatos's 'research traditions,' and in Larry Laudan's more recent but essentially equivalent 'research programmes.'

while lunacy allies with error and stupidity. After all, a large part of science's pride is that it often goes *against* common sense, and seems to lean toward lunacy. When one realizes how counterintuitive, indeed lunatic, the heliocentric theory, inertia or electricity are—when one recognizes that the discourse about the colors and flavors of quarks, the speculations of the string theory, and the interpretations of quantum physics are by no means more 'empirical' than the effusions of the Scholastic or the suppositions of alchemy—then it is easy to see that science derives its attraction and its fascination from the eternal risk of erring, from the pleasure of tempting the beast of stupidity with ever-more-daring strokes of lunacy. There is no need to be too much of a Romantic to propose that science 'advances,' and keeps advancing, because it is constantly on the look out, not for knowledge and certainty, but for the unknown and incertitude: because it is always after the tremulous vertigo of being 'in the twilight zone.'

If the italicized part is science, and the essays of *Serendipities* are all linked by being 'about' it, then they are clearly epistemological studies. They are essays on the history of science—of that 'twilight zone with a history.' As has been said, the twilight zone of *Foucault's Pendulum* is a little different in nature: it is a-historic. But, in addition, *Foucault's Pendulum* exploits the twilight zone differently. The reader is directly submerged in it, he loses himself in it, and feels in his own flesh all the vertigo that it generates. On the contrary, the five essays *address* the twilight zone, they illustrate it with diverse episodes of the history of knowledge; pleasure is derived not so much from the vertigo itself, but from the surprise of finding it and the satisfaction of deciphering it. It is an 'epistemological' pleasure.

Also *The Name of the Rose* largely draws on the study of knowledge, and can be read as an essay on Medieval science (philosophy/theology/metaphysics, they are all equivalent in this context); but the role of epistemology is actually subordinated: it does not go beyond providing (fascinating) motives, mechanisms and alibies for what is, in essence, a thriller. Much closer to *Serendipities* (and, by extension, to *Baudolino*) comes *The Island of the Day Before*: around an episode of the history of knowledge (the challenge of determining longitude in deep ocean) that had major consequences (economical, political, and of

course scientific ones) up to the seventeenth century, Eco creates a tale in which History finds a place, showing up both through historical episodes and through forms, uses, and preoccupations of the science of the moment.

To a considerable extent, *Baudolino* shares in the same nature, and it could in fact be described in very similar terms: around Prester John's letter (which also had major consequences), Eco has created a tale in which History has a place, again both as historical episodes and as forms, uses, and preoccupations of the Scholastic, the science of the moment. But there are, in my view, two important differences: on the one hand, the tale of *Baudolino* is much more deeply linked to the history of science. Ramon de la Grive, the narrator of *The Island*, is foremost a *spectator* of history and of science; Baudolino, on the contrary, is its *protagonist*. Many things happen to Baudolino the character, but also, and this is what makes the novel special, they happen to him as they happened to humanity, at least to the West. Roberto's story happened and could happen only in the context of Western History—Baudolino's story *is* Western History.⁴

This leads, on the other hand, to the second difference between *Baudolino* and *The Island*. What happened to Baudolino is what happened to the West with the identification and systematic pursuit of the vertigo of the unknown (that is to say, with the birth of science). But 'what happened to the West' not only 'happened' to it: it *is happening* to it. The problems of knowledge are the same today as in the Middle Ages, only their external form has changed. That is how it is with the greatest ease that, in *Baudolino*, parodies of medieval disputes, observed 'from the outside' by both author and reader, coexist with reflections on the very character of knowledge in its Western form, or with the paradoxes of the encounter among cultures, in which the epistemological unknowns and concerns faced by the twenty-first century are intimately manifest.

My study focuses precisely on those passages of *Baudolino*. We shall see that Eco paints a fairly complete portrait of science, of knowledge, and of their problems: just what he

⁴In part: *part* of Baudolino's story is *part* of Western History. Another part, no less (but no more) important, of Baudolino's story, is Oedipus Rex's story. And, of course, there are many other things in Western History that do not happen to Baudolino.

had done in *Serendipities*. The task was, needless to say, different: if the challenge there was to find the data, here it was inventing them. Of course, *invenio* means 'to find.' Let the ambiguity stand, because it is part of what I want to highlight.

De vacuo disquisitiones vacuæ

I begin with the parody of a Medieval discussion that takes place in *Baudolino* during the trip that Baudolino and his friends make to Prester John's land. As would be expected in so long a journey, not everything is danger and hazard. "Sometimes they proceeded rapidly... , and, not having to combat hostile elements, Boron and Ardzrouni conducted endless debates on the question that obsessed them, namely, the vacuum."⁵ Boron, a Montbéliard cleric and compulsive thinker, interested in all the pressing issues of his time—whether sperm can freeze, whether a prostitute can conceive, etc. (93 [98])—knows that vacuum cannot exist, not so much because of the *horror vacui*, but above all because there would then be other worlds, other Creations, other Messiahs—in short, all human wisdom would have to be revised. On his part, Ardzrouni, an Armenian nobleman, also on the edge of knowledge but with a more 'technological' tint, is more open-minded, always willing to renounce inherited wisdom if that leads him better to control nature. He feels at home in an atomized universe, so much more promising for the world view of a mechanist.

What follows is a paraphrase of the discussion that occurs between the two (329–331 [337–40]):

Boron employed his familiar arguments: that if there were vacuum in the universe, nothing would prevent the existence of other worlds, etc., etc.

But Ardzrouni pointed out to him that he was confusing the universal vacuum, *which could be debated*, with the vacuum created in the interstices between one corpuscle and another. For, according to certain ancient Greek philosophers and other wise Arab the-

⁵Umberto Eco, *Baudolino*, translated from the Italian by William Weaver (New York, San Diego, and London: Harcourt Inc., 2002), p. 329 [337]. I shall follow this edition for the quotes in English. Numbers within brackets refer to the Italian original.

ologists, the whole universe, and we ourselves, are composed of indivisible corpuscles, which are called atoms, whose incessant movement is the origin of life.

To Boron, those corpuscles are a heresy, and nobody has ever seen them.

This sets up the stage. Each opponent has clearly stated what book he believes in: Boron believes in Aristotle (read in the Bible by Thomas Aquinas), Ardzrouni believes in Leucippus and Democritus (in a hearsay account of their doctrine). In the natural unfolding of the fight, each will cite experiments and will interpret them so that they 'agree' with the appropriate book. Then he will claim them as evidence in his favor. We would expect that the fight would be decided by the impartial and incontestable arbiter of empiric evidence: is this not after all how, we are taught, science works?

Well then, let us see what happens to the characters. The first battle is waged around an experiment proposed by Ardzrouni. Each opponent offers a different interpretation:

Experiment/Question

Stick a needle into a swollen bladder. How is it that, for an instant, the needle enters in the bladder that is still full of air?

Ardzrouni

The needle is insinuated into the interstitial vacuum between the corpuscles of air.

Boron

While the needle is entering, a bit of air is already escaping, leaving space for the needle.

No conclusion is reached. In principle, both explanations could be true; the experiment would have to be carried out in conditions of extreme control and with extremely precise measurements. Ardzrouni tries then another experiment, hoping for better luck:

Experiment/Question

Immerge an empty flask in water, with the neck down.
The water won't enter, because there is air.
Suck the air from the flask, close it with one finger.
Immergit it in the water, remove your finger.
What happens?

Ardzrouni

Water will enter where you have created vacuum.

Boron

Water rises to prevent vacuum from being created (vacuum is against nature, and cannot exist).

This experiment provides evidence for both sides. It all depends on the experimenter's point of view. In fact, it is from observations much like this one that the notion of *horror vacui* was born, according to which nature fears vacuum. Still today many people would explain the fact that the water finally fills the flask in terms similar (if probably with a less animistic flavor) to Boron's. In other words, Ardzrouni is using his enemies' experiment. But here he has a second opportunity, with the obvious question: "but while the water rises, and it doesn't rise abruptly, what is there in the part of the flask that is not yet filled [...]?"

It is a difficult moment for Boron. His surprising answer is a finesse worthy of the finest magician:

When you suck out the air, you eliminate only the cold air, which moves slowly, but you leave an amount of hot air, which moves rapidly. The water enters and immediately causes the hot air to escape.

This argument is, of course, hardly convincing. Ardzrouni 'takes the lead' of the combat by refuting it easily (pointing out that even if the flask has been heated up water still won't enter: the heat of the air is irrelevant to the experiment). But do not think that he is winning because truth is on his side—it is not. . .

Boron now has a chance to counterattack, which he does by proposing another experiment. This time it is Ardzrouni who walks on very thin ice, resembling even the most far-fetched Aristotelian arguments about the essence of things and the 'desire' of stones to get home: "the water does not descend the second time because it rouse the first, and a body cannot make a movement opposed to the first if it doesn't receive a new stimulus."

The discussion proceeds like that. On the horizon one does not see, though, more than an indefinite series of experiments, interpretations, and articulations, that will never get the opponents to agree. Much closer in the immediate future is an interruption of the debate by the Poet (another traveller), who argues that, with so much chatter about water, flasks and bladders, they are all getting thirsty. *This*, for a change, is a convincing argument, and the friends set out to find a river. . .

The anti-evidence fortress

The discussion between Boron and Ardzrouni can very well have been historical, and have happened in multiple versions and contexts. (It is, for example, part of the stories of Bruno and of Descartes.) In this version and in this context, however, it is a portrait of science. Let us see: what happens between the two characters is the confrontation of two world views. Neither of the two, clearly, is by itself able to explain all observations and all experiments. Theories, scientific or otherwise, will always find ‘recalcitrant’ observations that go against them. It is the theorist’s duty to defend his theory from these observations, and for that he can resort to a number of strategies.

The first one, clearly illustrated by Boron and Ardzrouni, is the ‘*ad hoc*’ argument. Loosely defined, an *ad hoc* argument is an argument specifically designed to explain recalcitrant observations. It often involves new, and hitherto totally irrelevant, concepts. When Boron, for example, introduces the temperature of the air as a relevant factor, he is using an *ad hoc* argument. *Ad hoc* arguments can be a subject of controversy (as in this case), but then there is always the possibility of resorting to a new *ad hoc* argument to defend the first one: facing Ardzrouni’s refutation, Boron could have said that when the flask is heated up, the air that was already hot gets even hotter, so that a relative difference in temperature still holds...⁶

A second, no less important, defensive strategy, is also illustrated by Boron and Ardz-

⁶One of the most entertaining and illustrative accounts of this process is offered by Imre Lakatos in pages 100–1 of “Falsification and the Methodology of Scientific Programmes,” in Imre Lakatos and Alan Musgrave (eds.), *Criticism and the Growth of Knowledge* (London and New York: Cambridge University Press, 1970). A convergence is perhaps worth noting between section 3(b) of Lakatos’s seminal article, entitled ‘Positive Heuristic; the construction of the ‘*protective belt*’ ” (my italics) and the present section here. Like Kuhn, I profoundly disagree with Lakatos as to the possibility of *classifying* (in real time, as opposed to in an *a posteriori* reconstruction) the steps taken by science into a ‘progressive’ and a ‘regressive’ kinds. But the fact that theory is always ‘defending’ from recalcitrant observations—‘anomalies,’ in jargon—is hardly controversial, in spite of the scientific propaganda in textbooks and videos of popular science, that insists on ascribing to science a detached respect for and obedience of empirical evidence.

rouni: when an observation goes against a theory, it can always be (why not?) ignored.⁷ In fact, this 'selectiveness' of science (which selects what is relevant, and ignores the rest when it is uncomfortable) would make it possible, and perhaps beautiful, to read the history of science as the history of an 'art of ignoring.' Ardzrouni gives a good example: from the very beginning he reduces the battlefield to the 'interstitial' vacuum (the one he supposes between atoms). The other vacuum, the 'universal' vacuum (which is the one that concerns Boron, since it is in it that other Messiahs could exist), Ardzrouni admits that it 'can be debated.' If, in general, the discussion gives the impression of favoring him in the end, it is not so much because he is closer to physical truth (which, in a sense, he is), but because the battle takes place in the field he chose: he is playing home. What would happen, on the contrary, if Boron had had the occasion to present his theological-philosophical objections?

The art of ignoring, at least in one of its forms, is very much related to a third anti-evidence weapon: the very frequent resource to 'further research.' If theories can ignore certain bits of empirical evidence, they can do so because a hope and an intimate confidence remain that 'one day we will be able to explain it.'

The three methods work in close cooperation. They are the bricks of the very safe fortress that defends theories from the attacks of evidence. Faced with a counter-argument, scientists recur—not always consciously, needless to say—to a reasoning of the type 'there are many other factors at play (*ad hoc* arguments), and until we have not advanced in the research (further research) we will not address the issue (the art of ignoring).'⁸

⁷Cases are to be found all over the history of science. Polanyi tells, just for a special one during the very beginnings of the systematic scientific endeavor, that "the destruction of belief in witchcraft during the sixteenth and seventeenth centuries was achieved in the face of an overwhelming, and still rapidly growing body of evidence for its reality. Those who denied that witches existed did not attempt to explain this evidence at all, but successfully urged that it be disregarded." Michael Polanyi, *Personal Knowledge: Toward a Post-critical Philosophy* (London: Routledge & K. Paul, 1958), p. 168.

⁸Cf. Lakatos again: what happens when an *ad hoc* argument is proven insufficient to account for an anomaly? "Either yet another ingenious auxiliary hypothesis [i.e., a further *ad hoc* argument] is proposed

Paradigm, experiment, and the 'background books'

All of this points to a conclusion: experimentation—*pace* dogmatic positivists and empiricists that still swarm and quote Galileo as their apostle—is *not* logically pre-eminent to theorization. The refutation of a theory and its replacement by a new one do not depend, and have never depended, on empirical evidence. (The latter has no doubt a role, but it seems to be indirect and, in any case, not determinant.) Rather, it is theory that plays a role in the very reading of the experiment.

This is of course nothing new: it is simply a repetition of Thomas Kuhn and his exploration of the 'paradigms.' What is important here is that it is seen in *Serendipities* and in *Baudolino*. Not because Umberto Eco is supporting Kuhn, or arguing in his favor. By no means: Kuhn's basic propositions are so obvious and natural today (and in all truth part of his immense contribution consisted in having called the attention to this obviousness and naturalness) that they hardly require any defense. They 'float in the air' of contemporary thought, at least outside the rarified atmosphere of philosophy of science, that developed an anti-Kuhnian prejudice (in part as a result of the ridiculous excesses of some postmodern, everything but Kuhnian, readings of *The Structure of Scientific Revolutions* outside the context of science), a prejudice that has managed to blind it to its own fundamental agreement.

Serendipities, on the other hand, departs, to a good extent implicitly, from axioms that are equivalent to Kuhn's paradigms—from what Eco calls the 'background books:'

We (in the sense of human beings) travel and explore the world, carrying with us some 'background books.' These need not accompany us physically; the point is that we travel with preconceived notions of the world, derived from our cultural tradition. In a very curious sense we travel knowing in advance what we are on the verge of discovering,

or... the whole story is buried in the dusty volumes of periodicals and the story never mentioned again." *Op. Cit.*, p. 101. For example, when in 1925 conclusive evidence was presented by Miller *against* the theory of relativity (from a repetition of the famous 1887 experiment by Michelson and Morley, that textbooks misleadingly present as being a proof and even an inspiration for Einstein's work), Polanyi reports that "little attention was paid to the experiments, the evidence being set aside in the hope that it would one day turn out to be wrong." Polanyi, *Op. Cit.*, p. 244.

because past reading has told us what we are supposed to discover. In other words, the influence of these background books is such that, irrespective of what travellers discover and see, they will interpret and explain everything in terms of these books.⁹

As an example Eco tells of Marco Polo, who saw the rhinoceros and, unable to escape his background books, called it a unicorn; or of Leibnitz, who saw (spuriously) the binary system in the *I-Ching*.¹⁰ Also Boron and Ardzrouni read their bladders and their flasks according to their background books, Aristotle and the peripatetics the one, Leucippus and the mutakallimun the other.

But the most beautiful example is Baudolino himself. When “Baudolino tries his hand at writing” (which is how the novel starts), he does not have an empty parchment, and has to scrape off an already-written-on parchment. This happens to be the one where Bishop Otto, Baudolino’s tutor (and who initiated him into the arts of thought), had written a first version of his *Chronica sive Historia de duabus civitatibus*. (The connection between Baudolino and Otto acquires thus the intimacy of a blood pact.) Otto’s teachings configure the way in which Baudolino learns his world. Poor Otto dies soon in the novel, but his name reappears periodically, for Baudolino will keep recognizing him in his discoveries: Otto’s teachings are Baudolino’s background books. In the parchment, Otto’s *Chronica* is ‘in the background’ of Baudolino’s stories... Eco has reversed the metaphor, and what had been an abstract analogy is incarnated in the physical reality of his tale. He too writes on the background of an old parchment: *Baudolino* is, in part, written on the scraped-off *Serendipities*.

Measuring, always measuring, the Temple

Such notions as the Kuhnian ‘paradigm’ and the Ecchian ‘background books’ have implications that transcend much beyond the sphere of science. They are actually consistent

⁹Eco, *Serendipities*, p. 54.

¹⁰*Idem*, pp. 55 and 70 *et seq.*

with—even a little delayed with respect to—the general philosophical revolt that characterizes the twentieth century, and which has come to be sometimes called the ‘Disenchantment of Reason.’ They are concrete realizations of the abandonment of Absolute Truth, in the form of a general blurring of the boundary between the objective and the subjective. If observation is not independent from theory, and much less has any authority over it, then how is it possible to think that science escapes prejudices and modes of thought that are particular and subjective?

This question opens up a whole universe of doubts. The very nature and validity of knowledge, scientific or otherwise (is there, in fact, a ‘scientific’ knowledge and a ‘non-scientific’ one?), are put into question. The twentieth century found no satisfactory way out of the dilemma, but instead polarized it. Some on the one hand clung to lost objectivity, and chose to ignore any uncomfortable doubt: what cannot be counted does not count. Some, on the other, took the impossibility of objectivity to denounce it all as imposition and authoritarianism, as power relationships and *rappports de force*, and then turned to the most futile and sterile of anarchies: intellectual anarchy. The opposition is at the base of real chasms (such as the ones between cognitive psychology and psychoanalysis, or social sciences and cultural studies) or imagined ones (science and myth, physics and philosophy, science and art), and the occasional apparition of a Primo Levi who ‘finds bridges’ between the two ‘cultures’ of Charles Snow is a sign, not that the chasm is closing, but—precisely—that it is already fairly wide.

I find in *Baudolino* reflections to this respect. Naturally, no answer is to be looked for there: the dilemma is current and open. The epistemology of *Baudolino*, in this case, is not about explaining or illustrating, but about asking. A novel by a medievalist with the rarest historical erudition is a document of actuality.

At some point, Baudolino decides to describe for Europe Prester John’s palace. But, of course, he has first to make it up. By suggestion of his friend Abdul, he takes as his model the “Temple of Jerusalem, just as was seen by prophet Ezechiel” (123 [129]). There is, however, a problem with the reports in the Scripture:

Not one measurement holds up, and so a number of pious men have admitted that Ezekiel had indeed had a vision, which is a bit like saying he had drunk too much and was seeing double [...] I can't describe to you the scene when we went to hear Richard [of Saint Victoire]'s lecture on the Temple. He had the Book of Ezekiel before his eyes, and he was working with a tape to demonstrate all the measurements [...] He tried to reconstruct the Temple, and he reduced the measurements proportionally [...] Every two minutes the whole thing collapsed. Richard became angry with his helpers [...] In other words, it was amusing for a few mornings to follow that sainted man as he racked his brains, and we burst out laughing every time the Temple came apart. (122-3 [129-30])

In Richard's efforts and frustration (much funnier and more detailed in the original) one sees Ptolemy and Copernicus 'racking their brains' to make orbits, epicycles and deferents fit in some way; later on Kepler experimenting blindfold with diverse oval shapes when he abandoned the circular orbits; today physicists trying to reconcile four forces and two theories that insist on seeming irreconcilable...

The important moment comes when Baudolino meets Rabbi Solomon, and takes the chance to ask him about the 'state of research' of the Jews on the Temple of Jerusalem. The answer is surprising, and worth quoting at length:

The most alert commentators of the sacred text have not succeeded in establishing the exact structure of the Temple [...] You Christians do not understand that the sacred text is born from a Voice. [W]hen he speaks to his prophets, [the Lord] allows them to hear sounds, but does not show figures, as you people do, with your illuminated pages. The voice surely provokes images in the hear of the prophet, but these images are not immobile; they liquefy, change shape according to the melody of that voice, and if you want to reduce to images the voice of the Lord, blessed always be his name, you freeze that voice, as though it were fresh water turning into ice that no longer quenches thirst, but numbs the limbs in the chill of death.

Canon Richard, to understand the spiritual sense of each part of the Temple, would like to reconstruct it, as a master mason would do, and he will never succeed. Vision are like dreams, where things are transformed one into another, not like the images of your churches, where things remain always the same. (124-5 [131-2])

If in Richard we have recognized our inheritance, from Aristotle to Hawkings, if we have sympathized with their frustrations, then Solomon's reprimand must come as a shock. Everything is suddenly degraded, what was heroic turns into ridiculous, the certain into arbitrary and the humble into pretentious. Here we perceive Kierkegaard, but

this time we cannot attribute it all to a Romantic upheaval against Enlightenment: the commotion is all the stronger because it is in fact conceivable and credible that somebody, much before Europe started even dreaming of a Renaissance, was able to pinpoint with such accuracy the profound doubts that scientific enthusiasm would later on overlook to Western modernity's tranquility.

At least regarding the Temple, Solomon seems to be completely right. And if we could identify the interpretation of Scripture with the reading of nature—a mathematical and mechanistic reading, moreover, in the taste of Galileo and Descartes—who says that science itself, not only theology, suffers from the same structural wants?

The West was able to ignore anybody who did say it, to blind itself with Descartes's light and not see Spinoza. . . . But the ghost, of course, did not die, it only waited, and today it is here, hunting us. It sneaked in our background books.

The problem of difference

It should not come as a surprise that one of the fields where the debate around objectivity and subjectivity played itself with most prominence in the twentieth century was anthropology, and more specifically ethnography. After all, the 'intra-Western' dissidence, the Solomons, Spinozas and Kierkegaarts, were subtleties unable to oppose any real competition to the overwhelming triumph of science and technology. But Scientific Man would eventually take a fantastic step: with all his science, he decided to go to the encounter of the Other. And then he had to face himself.

Umberto Eco paints exactly that landscape. Also Baudolino and his friends in Paris, including Rabbi Solomon, had managed to ignore the latter's occasional reproaches. But the inevitable happened when they arrived, at last, at the limits of Prester John's kingdom. There they found all the creatures of the Medieval bestiaries (which, as has been said, are mentioned several times in *Serendipities*). The encounter was particularly intense with Gavagai, the skiapod. Gavagai has only one, huge foot, with which he leaps to move around, and he speaks a barely intelligible Greek, enough however to offer conversation

and serve as a guide to the travellers. Beyond that, however, communication is desperately impossible:

“But listen a moment. Just now I heard you say that skiapods are not friends of blemmyae. Do they not belong to the same kingdom or province?”

“Oh, no, they servants of the Presbyter like us [...].”

“You are not friends because you are different?”

“What you say? Different?”

“Well, in the sense that you are different from us and—”

“Why I different you?”

“Oh, for God’s sake,” the Poet said. “To begin with, you have only one leg! We and the blemmyae have two!”

“Also you and blemmyae if you raise one leg, you have only one.”

“But you don’t have another one to lower!”

“Why should I lower leg I don’t has? Do you lower third leg you don’t has?”

Boidi intervened, conciliatory: “Listen, Gavagai, you must agree that the blemmy has no head.”

“What? Has no head? Has eyes, nose, mouth, speaks, eats. How possible if has no head?”

“But haven’t you noticed that he has no neck, and above the neck that round thing that you also have on your neck and he doesn’t?”

“What meas noticed?”

“See. Realize that. You know that!”

Do not think that Gavagai is simply stupid. Coming right up he shows proof of perfectly understanding what the humans mean... and perhaps more:

“Maybe you say he not entirely the same as me; my mother couldn’t mistake him for me. But you too not the same as friend because he has mark on cheek and you no. And your friend different from that other one black like one Magi, and him different from that other with black beard like a rabbi.” (366–7 [373–4])

This is only the beginning. Gavagai does not understand the notion of ‘difference’ as we do. That does not mean that he does not understand *his* notion of ‘difference.’ In fact, he will soon proceed to explain it. And then we will see that we too have been blind, that we too ‘do not understand,’ and that he too could have thought that we were stupid. Note, however, that it is *us* who, at least for a moment, risk the judgement that

the skiapod is stupid (the Poet, for example, is and will remain totally convinced of that). On the contrary, Gavagai will find the travellers strange, but he never seems to think they are stupid.

The relationship is in every sense asymmetrical: it is the friends who 'observe,' Gavagai who 'informs.' For him, they are no more than another rarity, perhaps a bit less quotidian, of his traditional world of non-universal particularities; it is them who want to understand and interpret, to accommodate it all to their background books. The whole chapter (29, "Baudolino arrives at Pndapetzim") is a hyperbole of ethnography. It does not matter that Gavagai is a fantastic creature: Western man is real, and it is him who we are talking about.

Conclusion

Thus the eleven travellers cannot really communicate with Gavagai. The Poet even loses his temper. In the end, the friends head to Deacon Johannes's (the Prester John's son), and resume their original interests. There is no hint of a solution to the problem of intercultural incommensurability, just as there was none of a satisfying answer to Solomon's questionings. The problem of objectivity, in all its dimensions, remains open.

Let us go back to science, since about it we have already some useful clues. We have seen how theories are able to defend themselves, hidden behind the inexpugnable fortress of the *ad hoc*, the further research, and the art of ignoring. How the paradigm, or the background book, is preminent to all observation and all interpretation. From this, a facile conclusion could be and has been extracted, namely that belief in one theory (and not another) is an *arbitrary* cultural event. This mistake is the same in nature as the polarization of the twentieth century mentioned above. It is a result of the Manichaeian assumption that there is no middle way between the two roads, between believing in the objective and believing in the subjective; between aspiring to Absolute Truth and acknowledging every relative truth; between what has come to be called 'positivism' and what is called 'relativism;' between the Wittgenstein of *Tractatus* and the one of the *Untersuchungen*.

Eco addresses this too. The acknowledgment that science is not determined by physical reality “must not lead us to the conclusion that a criterion of truth does not exist and that tales now called false and tales that today we believe true are equivalent because both belong to the genre of narrative fiction.”¹¹ There is a criterion of truth; it is of course not simple, and above all it does not depend only on physical truth. But it cannot be denied that there is a criterion “thanks to which we all agree that Julius Caesar was killed on the Ides of March, that on 19 October 1781 the troops of General Lord Cornwallis surrendered at Yorktown to George Washington, ending the American Revolution, that sulphuric acid is H_2SO_4 , and that the dolphin is a mammal.”¹² This kind of criteria Eco calls ‘intersubjective criteria.’ *Precisely* a middle way between objectivity and subjectivity.

The whole volume of *Serendipities* is devoted to explore the ‘Force of Falsity,’ that is, the major consequences of some beliefs, today proven wrong, that in the past were declared true by those intersubjective criteria. As Eco says, it is not so much how false tales had so many consequences that has to be explained: “What represents a problem is rather the way they managed to replace other tales that today we consider true.”¹³ And, addressing that problem, he finds that:

each of these stories had a virtue: as narratives, they seemed plausible, more than everyday or historical reality, which is far more complex and less credible. The stories seemed to explain something that was otherwise hard to understand.

[...]

False tales are, first of all, tales, and tales, like myths, are always persuasive.¹⁴

Baudolino was, first of all, a liar. The entire novel tells how, by his cunning, and by diverse accidents of fortune, Baudolino’s lies always come true. Explained are Frederick Redbeard’s death, the foundation of Alexandria, the appearance of Prester John’s letter, etc., all within the same false tale, but one that makes full sense and is surprisingly persuasive.

¹¹*Idem*, p. 19.

¹²*Idem*, p. 3.

¹³*Idem*, p. 19.

¹⁴*Idem*, pp. 17, 19.

The final stroke of the book—very Borgian, incidentally—shows, with all that has been said, how *Baudolino* and *Serendipities* are, ultimately, the one about the other:

“It was a beautiful story. Too bad no one will find out about it.”

“You surely don’t believe you’re the only writer of stories in this world. Sooner or later, someone—a greater liar than Baudolino—will tell it.”

References

Eco, Umberto. *Serendipities: Language and Lunacy*. Translated by William Weaver. New York: Harvest, 1999.

_____. *Baudolino*. Milan: Romanzo Bompiani, 2000.

_____. *Baudolino*, translated from the Italian by William Weaver. New York, San Diego, and London: Hartcourt Inc., 2002.

Kuhn, Thomas S. “Logic of Discovery or Psychology of Research.” Pages 266–292 of *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago and London: University of Chicago Press, 1977.

Lakatos, Imre. “Falsification and the Methodology of Scientific Programmes.” In Imre Lakatos and Alan Musgrave (eds.), *Criticism and the Growth of Knowledge*. London and New York: Cambridge University Press, 1970. Pages 91–195.

Polanyi, Michael. *Personal Knowledge: Toward a Post-critical Philosophy*. London: Routledge & K. Paul, 1958.