

# Philosophy of Ecology and Capitalism

*The True New Green Deal*

By

**Jacques Richard**

# **Philosophy of Ecology and Capitalism: The True New Green Deal**

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# Introduction

This book offers an approach to the philosophies and politics of nature based on a reinterpretation of the history of capitalism, in particular its concept of capital. It makes it possible to present a new complete theory of capital, different from that which Marx had proposed, in an erroneous way. It leads to a new anti-capitalist conception of the philosophy of ecology which takes into account at the same time history, ethics, politics, law and economics. The *first part* is dedicated to the notion of modernity and its history, based in particular on a historical study of the development of capitalism from ancient civilizations to the particular form of capitalism that arose at the end of the Middle Ages. It allows us to conclude that there is a close link between modernity and capitalism, at least one of its forms.

A *second part* shows why civilizations before the end of the Middle Ages were not modern and what role notably the ideas on the economy of the ancient Greeks and the ancient Latins played.

A *third part* is devoted to the review of the main positions of economists and philosophers faced with the problem of the degradations of nature which arise with modernity. The positions of economists are first examined with, to begin with, those of forest economists (in the 16th and 17th centuries), then those defended by certain neoclassicals such as the promoters of the concepts of "externalities" and of "existence value." The approaches defended by the philosophers of nature who claim to be Environmental Ethics will then be discussed, in particular those who founded the schools of Pathocentrism, Biocentrism and Ecocentrism. To conclude on this third part, we will show that all these approaches, whether of an economic or philosophical nature, remain influenced by modernity and do not allow us to leave it to move towards a true ecological economy.

A *fourth part* demonstrates that to truly break with capitalist modernity, two conditions must imperatively be respected. Firstly, to rely on the philosophical principles defended by the supporters of "Relational Ecology" but also, secondly, to go beyond the framework of this school by developing a new ecological economy based on a drastic expansion of the

concept of capital-debt used by capitalists to conserve their financial capital. In a way, it is a matter of turning the weapon of capitalism against it to completely transform the systems of private management and national accounts that currently dominate global economic policies and, more broadly, the lives of all human beings.

By linking philosophy, law, economics and management, this work seeks to go beyond the mono-disciplinary and purely theoretical approaches which often characterize works devoted to the philosophy of nature or the philosophy of ecology. It is a question of proposing a concrete philosophical alternative to modern capitalism which leads to ecological co-management and care at all levels of society, including that of political bodies, and the reform of constitutions and parliaments. It is thus a book for a theory and a practice of environmental action in the broad sense within the framework of an institutional revolution passing in particular through the heart of the capitalist system: "its" corporate law and "its" accounting law. In short a concrete guide for a true green new deal.





## **Part One**

### **History, Distinctive Features, and Relations Between Modernity and Modern Capitalism**

In this first part we will successively address the history of the appearance of modernity, the birth of modern capitalist management in the Middle Ages, the ignorance of this modern capitalist management by most economists and philosophers, the evolution of modern capitalism towards financial capitalism and the diversity of points of view on the reality and scope of capitalism.

# Chapter 1

## A brief history of the emergence of modernity and its concepts

This chapter will deal with the notion of modernity in the frame of ecological philosophy and with the controversies about its emergence.

### **The notion of modernity and ecological philosophy**

Flipo (2014a, 15-17), shows, based on Afeissa (2007), that there are two traditional currents of ecological philosophy: the “Anglo-American” current, which focuses on questions of environmental ethics, and the “continental” current which, for its part, is more interested in technological questions of the struggle for the conservation of nature. He rightly underlines that these two currents both leave aside the fundamental question of “the questioning of modernity.”<sup>1</sup> For our part, we make modernity a central question of our reasoning. But this question is not obvious, if not because the definition of modernity is problematic. A large number of dictionaries refer to generalities encompassing several very broad concepts. Thus the Dictionnaire des Sciences Humaines (Editions Sciences Humaines, 2004, 563) affirms that “we agree to identify modernity with the historical period which opens in the West with the Renaissance (15th century). This new era is marked by large-scale transformations which have affected both social structures (urbanization, birth of capitalism), ways of life and values (individualism, advent of public freedoms, equal rights), rise of rational thought, sciences and politics (democratization)” ...“Reason, the individual, progress, equality, freedom: these would be the key words of modernity.”

But, contrary to these very general visions, we find much more targeted approaches. Thus, according to the Romantic movement, notably with

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<sup>1</sup> He notably evokes the positions of Catherine and Raphaël Larrère (Du bon usage de la nature, p.175) who consider that there is no fundamental problem of conflict between environmental ethics and modernity.

Rousseau, modernity would be defined as a taint caused by men of an intact, beautiful nature, without cities, in which man could go and dream as a solitary walker. However this is a nostalgia for a bygone past that hardly interests us, especially since it only really existed before the early days of agriculture, in the Neolithic (see below).

Another conception of modernity is more interesting. This is the one proposed by Lévi-Strauss (1962) and Viveiros De Castro (2009). According to them, while the pre-moderns, like the Amerindians, based their conception of the world on interrelational approaches and saw their universe populated by human and non-human subjective agents with a "similar soul," the moderns put an end to this view of the world to impose a reality that suits them. With them nature, that is to say everything that surrounds man, is populated only by objects to be used, the subject, man, being external to them and seeking to dominate them. This conception of modernity, which is based primarily on the subject / object dichotomy, is also that of Descola (2005), Moscovici (1968, 1972) and Latour (2014). The main question, within the framework of this reasoning, is to know what is raised to the rank of subject who has the power and what is lowered to that of pure object subject to the wills of the subject.

But we can oppose this vision centered on the subject-object distinction and power relations with more complex, if not different, visions, such as that of Norgaard (1994). According to this author, the modern approach is characterized by five constitutive elements: objectivism, mechanism, atomism, nominalism and monism. The criterion of objectivism, based on the ability of a subject to stand apart from what one wants to understand, can, to a certain extent, correspond to that retained by Lévi-Strauss and De Castro if one adds the question of power, in particular of abstraction of the object concerned. The mechanism, according to Norgaard, developed from the 18th century with Descartes (1637). It refers to the claim to know how to represent objects faithfully as pure homogeneous forms, with predictable behavior:<sup>2</sup> in these conditions nature can be captured by deterministic and predictable Laws. Atomism, on the other hand, is based

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<sup>2</sup> Descartes (1637) asserts that "earth and heaven are made of the same matter" and that this physical world behaves "in a predictable way."

on the thesis that any system is composed of invariable parts, which again constitutes an element of determinism. Nominalism adds the idea that systems are objectively determined by their elements, and not the other way around. As for monism, linked to nominalism, it makes it possible to move from individual positions to an objectification of the whole, a coherent universal whole: it is an epistemological nominalism. We find in Gladwin et alii (1995) and their "technocentrism" similar notions to characterize modernism, with however a particular focus on the faith of the moderns in technology, a technological optimism which allows limitless possibilities of the exercise of the human power over objects, so much so that the modern world is perceived as a "vast machine."<sup>3</sup>

As can be seen, depending on whether one emphasizes the subject-object relationship and power as do Levi-Strauss, Viveiros de Castro, and even, to some extent, Gladwin et alii or that we add other criteria like those proposed by Norgaard, we end up with various definitions, if not very different, of modernity which will in particular pose problems for its identification and its historical location. For example, if we stick to the definitions formulated by Norgaard and the precisions he gives, modernism could not really begin<sup>4</sup> until the 17th century with Descartes (1637) and the "development of the mechanism." Likewise, even if the Middle Ages saw a notorious capacity for technological innovation (see below), it is clear that Gladwin et alii refer to the technological and industrial revolution of the 19th century rather than to the time of Leonardo da Vinci.

In this study we will not retain all of the criteria proposed by the various authors. We will consider that the criterion of the subject-object distinction is the determining criterion of modernity because it is the basis of the other criteria, as we will see later. We will therefore seek the first traces of this modernity in the appearance of a systematic partition between men (or

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<sup>3</sup> We gloss over even broader and more imprecise definitions that incorporate allusions to 'dynamic', 'democratic' and 'economically advanced' attitudes. We also reject, for reasons that will be seen later, the criterion of the quest for productivity as the basis of Modernity.

<sup>4</sup> We will see that already among the ancient Greeks certain authors like Democritus announce the theories of Descartes. But the latter is generally considered the father of "mechanism."

certain men) who are the subjects and nature which is the object. We will come back to the rationale for this position later, especially when studying the history of ancient civilizations, particularly that of Greek philosophies. We are also leaving aside for the moment the fact that, with regard to the subject-object relationship, modernity cannot rest on a total objectification because it is obliged to interpret the phenomena that it claims to observe "scientifically": it cannot reveal all the objective elements of this complex reality. Furthermore, we underline that the notion of the subject, as composed of absolute freedom and will, corresponds to an ethereal, purely theoretical vision of the reality of modernity. As Latour (1997,2014,) shows, the purification of objects has its limits: the world is populated by new hybrids, partially unpredictable, that the modern approach will try to objectify but still with the limits inherent in the subjectivity of humans in their efforts to interpret the realities of a constantly changing world. This is also what Bourriau underlines in 2000: "the object of [modern] science is no longer the object itself (the thing in itself) but the implementation of objectivity, id est the mind taking itself for the first object." Thus science reasons on and from the representations that the subjects have of the world,<sup>5</sup> themselves based on supposedly objective intermediaries. However, for us, these attenuations do not call into question the fundamental subject / object separation that we will find in many modern practices. This type of separation is of great benefit to modern humans. It gives them the possibility of splitting the complexity of reality into two distinct ontological zones: one, the object, intended to be controlled and supposed to be controllable and the other, the subject, intended to control and supposed to have the qualities for doing it and thus simplify the problems. One of the examples of these simplifications consists in particular in considering that the world is probabilizable and can even be aligned with what the ideal man expects from it. A world without surprise, purified where, as Latour (1997) says, "subjects win every time." From the beginnings of modernity they therefore had absolute rights over objects, such as forests, expressed by "scientific" representations supposed to provide a faithful description of them. But to justify these statements we

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<sup>5</sup> Utilitarianism, in particular, seeks to objectify this subjectivity by measuring the objective consequences of the manifestations of subjectivity, such as happiness, for example.

must now identify the existence and the novelty of modernity by historical arguments.

## **The controversial history of the emergence of modernity**

The appearance of the concept of modernity and its justification are closely linked to the observation of a destructive action of man on nature, nature being understood here in the restrictive sense of the term which is that of modernity: including everything that exists on earth except humans. Although, as Flipo (2014a, 11) rightly puts it, “the culprit is not well identified,”<sup>6</sup> the general thesis is that as “modern man”<sup>7</sup> treats this “nature” as an object, a simple resource to meet its objectives, it destroys it systematically and progressively whereas the pre-moderns tended rather to preserve it because, in particular, of their relations of equality and respect towards the other living beings. If this thesis is correct, we should be able to date the emergence of modern man by the observation of massive phenomena of destruction of nature, especially forests, which are the most favorable places for biodiversity. But serious difficulties arise when it comes to verifying this hypothesis. Indeed, from the Neolithic period (9000 BC), during the birth of agriculture and breeding, and the sedentarization of human beings (Ponting, 2007), the area of forests near the territories of humans decreases very significantly (Groombridge and Jenkins 2002), which affects ecosystems, even sometimes until today (Olivier, 2006). We would then be led to consider that our neolithic ancestors would already be moderns. However, these ancient phenomena of mass destruction must be put into perspective both in their impact and also above all in their frequency: these are still localized and non-regular phenomena. On the other hand, in the opinion of specialists in the matter, a change in the scale of the level of deforestation appears in the Middle Ages, leading to effects out of all proportion to previous impacts. These effects would herald the contemporary ecological crisis (Williams, 2006). We are then led to seek the birth of modern man in this historical period.

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<sup>6</sup> This author shows that the authors evoke in particular “humanity, western man, the West, homo faber, or even homo economicus.”

<sup>7</sup> Next we will clarify what we call “modern man.” We show that only a certain category of human beings deserve, historically, to be called modern.

But two main explanations oppose the cause of this appearance of modernity in the Middle Ages: that of Lynn White Junior (1967) and that of Renouard (1949). The first defends the thesis that the reason for the appearance of this new situation would be due solely to Christian thought: it would have gradually established a conception of the world at odds with most religious systems, this because of two new principles. The first is that man is separate from nature inasmuch as he was created in the image of God, and the second is that it is God's will that he exploits nature for his own ends.<sup>8</sup> Thus, according to this thesis, the catholic religion, the most "anthropocentric" of all, man being at the center of the universe, would be the cause of the emergence of modernity. According to White, too, the development of techniques arose as early as the 7th century, but it was its progression from the early Middle Ages to the 11th century that was the reason for the systematic destruction of our environment. The interest of this thesis is to highlight that the questions of the ecological crisis and sustainability (particularly of forest and climate) are linked above all to thought patterns concerning the relationship between man and nature, even if they are connected to practices. These are fundamentally neither questions of equity (such as that of inter- and intra-generational relations), nor even questions of rational management of natural resources. In short, above all, questions of culture and politics: in the broad sense of the term<sup>9</sup> cosmograms, that is to say problems of articulations between humans and non-humans in order to build a world (Latour, 2007a). But Lynn White's thesis is very controversial (Minteer and Manning, 2005; Afeissa, 2012, 97<sup>10</sup>), for two main reasons. The first is that a serious reading and interpretation of the biblical texts does not mean that these texts make of man a subject who is the measure of all things and that nature can be exploited as he pleases. The first account of Genesis certainly states that "God made the beasts and the earth after their kind, and the cattle after their kind, and God

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<sup>8</sup> The text classically invoked is that of Genesis (I, 26-29) which commands man to "rule over the fish of the sea, the birds of the sky, the cattle, all the wild beasts and all the creatures that crawl on earth."

<sup>9</sup> In contrast to this broad sense, politics, in the restricted and pragmatic sense of Dewey (1930), is the science of solving concrete problems, within the framework of politics in the broad sense.

<sup>10</sup> This author rightly underlines "the profound ambiguity of the Judeo-Christian heritage" (97).



saw that it was good" (Gn 1, 24-25). But, as underlined by Callicott (2009,21), one of the creators of the current of environmental ethics, in this text, "God represents an objective and independent axiological point of reference" and thus, we humans, "we have the right to the usufruct of our possession of nature as long as we govern it with benevolence and do not draw on its main reserves." This interpretation of Callicott, among others by the same author,<sup>11</sup> is that of man as steward or guardian of nature entrusted to him by God. It corresponds exactly to the one recalled very recently by Pope François in his encyclical *Laudato Si* (2015), a text that we will examine in more detail later. The second reason is that there have always been different currents on the problem of relationship of man and nature within the Catholic Church: thus the (true) followers of the ideas of Saint Francis of Assisi were active defenders of the protection of animals. If we admit that it is more than simplistic to place the weight of the cause of the emergence of modernity on the Christian religion, and in particular the Catholic religion, then other avenues must be found to explain this appearance.

In fact, another factor, not inherently religious, may have played a very important role. One can indeed oppose, with Yves Renouard (1949), a theoretical framework other than that of the religious cause: that of a modernity which would be founded on the emergence of "modern" capitalism and its concepts. Within this framework of thought we then trace modernity back to at least the 14th-15th centuries to extend it to the present day without interruption.<sup>12</sup> We then consider the emergence of this modern capitalism as a break with all the traditions of the past (including religions) due to human reason, or at least a certain human rationality linked to this type of capitalism: being human is then judged free, able to master his future, to control it and to constantly make it better. It is the idea of a continuous progress of the free subject or more exactly of a certain free

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<sup>11</sup> Callicott (2009, 61-62) will have another interpretation of the relationship of man with nature from the second story of Genesis according to Yahwist sources: for him, in this second story, man would no longer be only a simple steward of God but a conscious actor of the protection of nature with which he is in collusion.

<sup>12</sup> Contra, it seems, Pelluchon (2011, 103), building on Chakrabarty (2010), who believes that "we are collectively a geological agent." We will come back later to this highly debatable "collectivist" thesis of modernity.

subject, capable of distinguishing facts and values, which is a major characteristic of this modernity against an authoritarian traditional, subject to laws immutable. Indeed, as Renouard shows, the development of "modern" capitalism is giving rise to new capitalists who want to dominate nature, in particular thanks to their scientific and technical knowledge.<sup>13</sup> This historian also underlines that these newcomers have an ambition to dominate the world with their companies of international dimensions and their very active participation in political life. This new type of capitalist will, of course, be supported by certain currents of Catholicism, but it will also run up against certain principles of this religion (see below). It can be considered as the prototype of the new "modern subject" which makes nature a simple object to be dominated, which leads to the new geological stage of the "Anthropocene"<sup>14</sup> or rather, as we will demonstrate, of the Capitalocene. Let us underline in this regard that this capitalism is not only a commercial capitalism: it is also a devastating industrial capitalism, like many of these capitalists of Florence who practiced the wool industry (see in particular Piper, 1978, and, on this basis, Richard and Rambaud, 2020; 2022a).<sup>15</sup> More generally, as Gimpel (1975) has clearly shown, the Middle Ages were already the scene of a first industrial revolution. It would therefore be this triple crucible, first and foremost capitalist, but also industrial and, in part, religious, which would gradually lead, according to this thesis, to new massive environmental impacts, especially forest ones, over the following centuries. Of course, as already noted, the degradation of nature did not begin at the end of the Middle Ages. Despite controversies they are often traced back to the beginning of the agriculture, around 10,000 years ago, with massive changes due to human action. But, as Jones (2004) underlines, towards the end of the Middle Ages, changes in the scale, rhythm and nature of environmental impacts, linked in particular to new types of "modern" management of companies, potentially lead to a new geological era: we enter the era of the "modern" capitalist enterprise with a *permanent*, [we underline this adjective], rational calculation adapted to

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<sup>13</sup> Which does not mean that this knowledge is the dominant factor: it is only part of the question.

<sup>14</sup> A term coined by the Nobel Prize in Chemistry Crutzen (2002).

<sup>15</sup> Grange (2012,124-127) also rightly shows that this type of capitalist is a special man, but she does not agree on the date of its appearance: she shifts it to the 17th and 18th centuries, at the time of what is commonly called the "industrial revolution."

the ambitions of this new type of capitalist.<sup>16</sup> Of course, business and profit were not born with "modern" capitalism (Hudson, 2010; Wunsch, 2010). Assyriologists, in particular, show that Assyria and the kingdom of Babylon experienced a structured economy with companies seeking a surplus, a private profit (see below). But, on the one hand, these companies had very strong relations with the public institutions that were the temples and the Government Palace, in particular to avoid excessive fluctuations in prices. On the other hand, their management was based on calculations of results in terms of cash flows that have nothing to do with those that will develop the Italian merchants and industrialists promoters of the modern capitalist enterprise. As we will then show in more detail these types of ancestral capitalist calculations, which are also found in ancient Greece and Rome, could not allow a permanent and efficient rational management of the resources to be used. For the most part, economic activity was concentrated in the hands of small farmers who had little in common with the spirit and the means of the large industrial and commercial capitalist enterprises that we see appearing at the end of the Middle Ages, particularly in northern Italy (see below). We therefore note, from the start of the history of companies, that we cannot speak in the abstract of the firm, including capitalist one, as a single model but rather of various modalities of the firm with different types of management. The new modern capitalist enterprise of the late Middle Ages is truly a revolution. Thus, as Sombart (1902), then Renouard (1949), Robertson (1959), Castoriadis (1976, 2013), Moscovici (1972, 1977), Goody (2004), Nitzan and Bichler (2012) have already pointed out, birth of modern capitalism and modernity are intimately linked, if only from a temporal point of view: it is indeed Italian merchants and industrialists who are the founders of modern capitalism at the end of the Middle Ages. Max Weber (1920) links capitalism and its new spirit above all to the Reformation (in the 16th century), therefore to problems of religious ethics, which in our opinion is a major error. However, he clearly recognizes that "it would seem that the development of the 'capitalist spirit' is to be regarded quite simply as a specific phenomenon within the general evolution of rationalism and that it is the

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<sup>16</sup> Our thesis is therefore opposed to that of Pelluchon (2011, 22) who sees, relying on Grinevald, the emergence of a break only in the 18th century with the "thermo-industrial revolution."

result of certain positions taken of the latter rationalism on the ultimate problems of existence." He therefore nevertheless connects capitalism and rationalism, while making it a certain form of the latter. Weber is thus led to distinguish various forms of rationality, including an instrumental rationality that he attributes to modern capitalism. It is this thesis that Castoriadis (1976) clearly adopts. For him, modernity appears as the observation of a "[...] convergence that we see from [...] the fourteenth century, between the birth and the expansion of the bourgeoisie, the obsessive and growing interest in inventions and to the discoveries, the progressive collapse of the medieval representation of the world and of society, the Reformation, the passage from the closed world to the infinite Universe, the mathematization of the sciences, the prospect of an indefinite progress of knowledge and the idea that the proper use of reason is the necessary and sufficient condition for us to become masters and owners of Nature (Descartes 1637)." Later in another writing (2013) Castoriadis makes instrumental rationality one of the two fundamental traits of capitalism.<sup>17</sup> For him, this second characteristic "is obviously that the push towards mastery gives itself new means, and means of a special rational character [...] - to be accomplished. It is no longer magic or victory in battles that is the means, but precisely rationalization."

The capitalism that emerges in the Middle Ages is thus a particular attitude to the world characterized by a rational control of certain subjects (the capitalists) over objects (nature and certain humans). It already corresponds to the modern "orthodox" view. The period of the early Middle Ages is therefore, in our opinion, that of the true birth of Modernity and of one of its fundamental characteristics: an unprecedented type of business management. This does not mean, as we will show later, that all the characteristics of this modernity appear at this time. But that does mean, on the other hand, that before that time it was difficult to be able to talk about modernity. Let us underline, in this regard, two last points relating to this analysis which rests the transition to what we have called modernity on the

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<sup>17</sup> The other feature being the aim of a total mastery of society (including education and politics), not only of production and the economy.

shoulders of modern capitalists which leads to speak of Capitalocene rather than Anthropocene to name this new era.

First, there is no question for us to consider that all human beings in this period of the High Middle Ages were modern subjects: only a very specific segment of the population were. From that time on, therefore, we cannot speak of "Modern Human Nature" but of various "human natures," some of which are modern and others not. Most of the people of the time were farmers or small artisans who behaved more like the ancient Greeks and Latins than the new modern capitalists. This situation will largely continue until the 20th century (see below). Second, as we will show, these new capitalists, with the support first of princes or kings, then of all the republican governments of Western Europe and America, will, over the centuries, considerably increase their wealth and their power and dominate the economic and political scene to the present day. Therefore, even today, one cannot consider that the modern cause is that of human beings as a whole: the capitalists in question are "more modern" than the other layers of the population, in the sense that this it is they who are "at the helm" of this modernity.<sup>18</sup> We cannot therefore put in the same basket the leaders of modernity and those who are practically obliged to follow it, even if, in theory, they have the power to change things within the framework of parliamentary systems. If this thesis of the primacy of the influence of modern capitalism in the responsibility for the degradations of nature is correct then our position according to which the role of Descartes and his mechanistic philosophy is a secondary element, or even irrelevant in the treatment of this question, will be justified. This man of science is not fundamentally responsible for the current ecological disasters. So now, to consolidate our position, we need to analyze in depth what are the major characteristics of this modern capitalism which was born towards the end of the Middle Ages. We will be particularly interested in what, according to the meritorious and precursor works of Sombart and Weber,<sup>19</sup> made the fundamental mark of this type of unprecedented capitalism: its accounting

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<sup>18</sup> Descartes' general split between things that think (human beings as a whole) and matter (*res extensa*) is therefore irrelevant to our analysis.

<sup>19</sup> Even if they could not perceive the essence of modern capitalist accounting (see below) we must pay homage to these two sociologists for having understood the importance of this discipline: it is a rarity.

system. Without this presentation it is impossible to understand not only what capitalism really is but also modernity.<sup>20</sup> We can then explain why the ancient Greeks and the ancient Latins practically did not enter modernity despite the considerable progress of their scientific and technical knowledge.

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<sup>20</sup> For more details on this complex issue see Richard and Rambaud (2020 and 2022ac).

## Chapter 2

# The Birth of modern capitalism and modernity in the 14th century in Italy

The modern capitalist firm is a company that Christophe (2007) designates as "promethean." Indeed this type of company is characterized by the modern subject / object divide: the subject(s) (mainly capitalists) appear on the liabilities side<sup>1</sup> of its balance sheet in very peculiar capital accounts while the objects (or resources to be used, or more precisely their cost of use), as nature and certain human beings, are registered on the opposite side of the balance sheet into its assets, this term referring to simple means of action (from the Latin verb *agere*, to act). The bases of the future "denaturation" or "dehumanization" or of "disenchantment" of certain human beings and the systematic destruction of nature are already anchored in this accounting system which is still rife at the time of writing of this book. In his analysis of the disenchantment with the world, Gauchet (1985, 20) considers that the source of this state lies in the "quest for added value" and "economic gain" [which] is not a matter of opinion but of calculation which is imposed on all and all." He is right to link the source of this disenchantment to calculation problems, but he is wrong to think that these calculations are not a "matter of opinion." On the contrary, it is the totally selfish and perverse opinion of a group of individuals who, from the Middle Ages, will begin to conquer the world thanks to their very particular rationality and gradually make it a rationality which dominates the world, all the peoples of the earth. From this point of view, because of the lasting victory of these capitalists, it can be said that theorists and practitioners of human rights have never put their rhetoric into full practice. The famous Kantian principle of classical ethics that one should do for others what we want them to do for us has never concerned the accounting law of modern capitalists. To verify the validity of these assertions it is first of all imperative to thoroughly analyze this terrible type of management by distinguishing notably two of its major

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<sup>1</sup> The words "passif or Passiva" which design the liabilities in French and German accounting comes from the Greek verb *pateiv* which means "to bear," in particular weights which can be physical but also relational, such as debts.

innovations: double-entry accounting and the principle of prudence. Once this task is accomplished we will conclude this chapter by showing that in most cases these major innovations and their consequences have been largely neglected by philosophers.

## **The invention of modern double-entry subject/object accounting.**

The mode of calculation of the modern capitalists, as it appears in northern Italy at the end of the Middle Ages, is marked by the use of a particular accounting device, completely unknown before: double-entry accounting (DEA). As we have said, Sombart (1902), the first, long before Weber (1920), whom he strongly inspired, rightly made it the major characteristic of "modern capitalism" to the study of which he dedicated an important part of its work. Even if he did not understand its mechanism and in particular its concept of capital (Rambaud and Richard, 2020,2022ac), he had the immense merit of emphasizing the importance of this technique which is very difficult to interpret, in particular for who is not a practitioner of accounting and does not know its historical evolution.<sup>2</sup>

Indeed, the complex problem that arises is to know what exactly is meant by modern capitalist double-entry bookkeeping (DEB). Some Chinese historical studies argue that this use of the double entry technique, it means the simultaneous recording of a single given transaction in two different accounts,<sup>3</sup> appeared in China around the sixteenth century (Aiken and Lu, 1998). Moreover, other historians even believe that double entry accounting was already used in the year 100 BC among the Romans for planning and administrative control tasks: "double entry was used in Roman governmental planning and control as early as 100 B.C. (Most 1976 and, on this basis, Strachan 1984). But, in fact, these types of so-called "double-entry" accounting differ fundamentally from the double-entry accounting invented by the Italian capitalists, in two main respects, the second being

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<sup>2</sup> To tell the truth, even many accountants, who often have no historical training, also have difficulty in identifying the originality and the salient features of this invention. They learn accounting by heart as a simple technique without perceiving its ethical and ideological underpinnings.

<sup>3</sup> For example a purchase of goods.



fundamental. Firstly, they only deal with cash movements (outflow of money from one account and inflow of money into another account) while the Italian DEB, with a universal vocation, also concerns other types of movements such as purchases or sales on credit, operations without any cash consideration.<sup>4</sup> Second, and above all, these ancient types of accounts never considered the capitalist subject as a creditor of his own enterprise, whereas it is this duplication of the personality of the capitalist that will found the modern capitalist accounting system from the end of the Middle Ages.<sup>5</sup> Indeed, from the birth of modern capitalism, in the Florence of the 13th and 14th centuries, certain factories and capitalist commercial firms show on their balance sheet a cleavage between capitalist-subjects and objects subject to the will of these subjects.<sup>6</sup> The typical initial balance sheet (at the time of foundation) of this totally new business model is as follows (assuming that a private capitalist X has invested a sum of 100<sup>7</sup> from his personal savings):

Assets (resources to be used)	Liabilities (debts to be repaid)
Cash on hand 100	Capital due to X 100

**Table 1.1** *Typical initial balance sheet*

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<sup>4</sup> Typical examples are a purchase of a machine on credit and the depreciation (wear) of this machine as it is used. These types of neuralgic operations for modern capitalists absolutely cannot be recorded in a simple "cash" accounting of the Greeks and Latins insofar as they do not involve any movement of cash. In this respect, the invention, in particular, of the concept of depreciation (even in a rudimentary version) was a major innovation in management. Economists traditionally attribute this invention to Quesnay, but the truth is that this concept was discovered and used by Italian accountants more than three centuries before the "discovery" of the famous author of the "economic circuit" who, moreover, did'nt understand it (Richard and Rambaud 2022ac).

<sup>5</sup> Rambaud (2015, 143) points out that "the Chinese double-entry accounting described above does not personalize the accounts; it only aims at simple inscriptions of flows and therefore of interrelations of hybrids, being in this perhaps close to pre-Modern thought.

<sup>6</sup> We will of course find these characteristics again later, particularly during the industrial revolution: see in particular the case of the Oberkampf firm described by Briot (2014). But it was not this industrial revolution that created modern capitalist management: it only applied the invention of the capitalists of the late Middle Ages.

<sup>7</sup> The monetary units are not specified to remain within the framework of an abstract reasoning and to shorten the figures.

In this modern accounting vision which "sees double," which one can notably observe concretely in the balance sheet of the capitalist Datini of January 31, 1399 (De Roover (1956), two striking elements appear.

First, contrary to what the quasi- all economists, whether classical, Marxist or neoclassical will think thereafter, the capital of the capitalist (the modern capitalist as a practitioner, not the capitalist in the imagination of economists<sup>8</sup>) is absolutely not an asset (or a resource, or a means) to be used but a debt towards the capitalist, a debt which appears on the liabilities side of his own company's balance sheet. At the same time, the means to be used are never named "capital" by these accountants, as economists do, but "assets."

Second, although from the founding of this company employees could be hired they do not appear as capital in this accounting: we will show subsequently they are treated as simple objects. The capitalism which was born at this time is therefore a "mono capitalism," in the sense that only one type of capital is strictly preserved thanks to its recording in the liabilities 'side as a debt to be entirely repaid to the capitalist.

Normally, the study of any phenomenon begins with its detailed description to show its appearance, then the nature, the concepts and the laws which govern it: all science consists first in giving an account of experience, of real practice. But economists, with very, very rare exceptions, have never wanted to respect these principles when it comes to the case of capitalism. In particular, they were unable or, more generally, unwilling to seriously study its actual practice, especially its heart, accounting. Even Marx, who nevertheless spent a lot of time in the study of capital (to put it mildly), and who was interested in certain accounting concepts, notably that of depreciation (Chiapello, 2007), was unable to see how (and why) capital, in the practice of capitalism, is not a means of action or a resource,<sup>9</sup> but a thing to be conserved.<sup>10</sup> Marx's goal was above all to demonstrate that

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<sup>8</sup> See for more detail on this specific point Richard and Rambaud (2022ac).

<sup>9</sup> Marx's famous cycle of the circulation of capital in the form of money-commodity-money (MCM') is well known. For a classical capitalist accountant, capital is not something that circulates: it is assets that circulate.

<sup>10</sup>We are aware of the heated terminological debate between "conservationists" and "preservationists." For our part, we will not make a state affair of these terms. The

the accumulation of wealth by the capitalists in the framework of the expansion of the productive forces would inevitably lead to the destruction of capitalism. This very Hegelian position would even lead him to be a “free trader.” As he says in *Misère de la Philosophie* (1847, ed 2002 p.197, 212) “the system of commercial freedom hastens the social revolution. It is only in this revolutionary sense, Gentlemen, that I vote in favor of free trade.” Why then bother studying thoroughly the capitalist accounting and inventing a counter accounting model when the dynamics of the system being criticized is leading it to death?

After him the other economists, especially the neoclassics, will develop an economic theory that has nothing to do with the real functioning of capitalism. This statement may seem provocative, but it is also that of a few rare economists and not the least ones: thus, for example, Stiglitz (2010) comes to say that “economic theory has become a self-sufficient world, a false representation of reality.” Neither did Marx's successors rectify the situation, including those who had an ecological “touch” (see below).

Two conclusions on these developments can then be drawn. First, we can only speak validly of capitalism by making a phenomenology of its real practices. Secondly, this type of modern capitalism does not date from the 20th century with what is called financial capitalism, nor even from industrial capitalism of the 19th century: it appears long before, at the end of the Middle Ages, and this not only under a commercial form (that of simple merchants) but also in industrial form with large factories, especially wool manufacturing. Meiksin Wood's (2002) thesis, inspired by the writings of Marx, that the capitalism of northern Italy in the 14th and 15th centuries was mere capitalism of merchants who bought for resale is unfounded. The concept of modern capitalism should therefore not be confused with a type of activity: its major innovation, modern double entry accounting, and its economic and social consequences already concern at its birth, in the Middle Ages, all types of activity. Let us underline, in this regard, that even Polanyi is also mistaken when he affirms in his “Great Transformation” (1944) that the labor market and the class struggle only

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main thing, as with “sustainable development,” is the philosophy (anthropocentric or not) that is associated with them. The reader will judge what it is by reading the entirety of this work.

really existed from 1834. He lacks knowledge of social and accounting history, at least those aspects concerning modern double-entry capitalist accounting at the time of the great Italian cities of the end of the Middle Ages.<sup>11</sup>

To return to this event and to the conditions and means of its birth during this period, we see that we are dealing here with an extraordinary duplication of personality which anticipates by nearly five centuries the development of types of companies having a legal person: the private person X who founds a capitalist company ‘lends’ a sum of money to this company which, as a fictitious capitalist business person, must reimburse him this sum. We will show that this major innovation of a remarkable fiction<sup>12</sup> allows the capitalist to use his money (and more broadly his various types of assets) while conserving his capital, that is to say a sum of abstract mone<sup>13</sup> that must be refunded to him. In other words, the accountants of modern Italian capitalists have discovered that in order to be able to ensure a systematic and permanent conservation of the financial capital invested by their masters, it is necessary to consider this capital not as a means of action (an asset) but as a debt or liability. In a certain sense, we can say that these capitalists have “sanctified” their capital: we must not touch it.<sup>14</sup> We can also say that they have invented a principle of absolute

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<sup>11</sup> It is symptomatic that in his famous article on “socialist accounting” (1922) he does not use this concept of double entry at all.

<sup>12</sup> Harari (2019), in his magnificent fresco on a “brief history of humanity,” rightly points out that fictions have played a major role in this adventure. But he did not see the major role of the fiction wrought by double-entry accounting, although he has a keen interest in capitalism, which is to his credit.

<sup>13</sup> This sum of money is abstract because it is independent of the concrete form of the resource that corresponds to the assets. If our capitalist had brought at the time of the foundation of his firm a building of value 100 instead of currency the capital in both cases would have been 100 in liabilities.

<sup>14</sup> The fact that nowadays a private capitalist makes the decision to risk his personal wealth by gambling on the stock market and thus to make a commodity of it does not imply a commodification of the global capital of the capitalists: it is a game between them in which there are winners and losers which does not prevent this global capital from being “normally” subject to systematic preservation thanks in particular to the double-entry technique. Of course, this type of conservation does not protect against social revolutions or ecological crises that can arise at any time but, for the moment, it ensures, as history has proven (see in particular the works de Piketty, 2012 and 2019) a

prevention in this regard, as opposed to a principle of precaution (see below for more details). In another sense, we can also say that they made themselves morally responsible for the conservation of their capital, this before, much later, in the 19th century, this responsibility was sanctioned by law and therefore became legal(see below).

It has often been said, notably with the famous Meadows report (1972) that modern (capitalist) society is characterized by a society of "unlimited growth" but this is not correct. The capitalists have imposed certain (very specific) limits on their growth. In particular, there is a sacrosanct limit that these capitalists will never cross: it is the destruction of their capital of their own fault. To this end, the type of management that they will use involves a particular concept of capital to be conserved which we will call capital-debt. This capital-debt, although within the framework of capitalism and commodification, is not an object or a commodity at all.

In a founding text of bio-centrism and even eco-centrism (insofar as it is particularly interested in soil protection) Routley (1973<sup>15</sup>) asserts, (referring to Barkley and Seckler: economic growth and environmental decay), that "the liberal philosophy of the western world defends the idea that everyone should be free to do what he wants as long as he does not harm other people and that he does not harm him in an irreversible way."<sup>16</sup> In fact this conception of liberalism, which they qualify as "chauvinist" (power of men in general over other living beings and things), seems questionable in view of modern accounting law which will develop on the basis of the accounts practiced in northern Italy at the end of the Middle Ages, and that this liberalism, over the centuries, allowed and even made compulsory by laws (see below). This for two main reasons. First, as we will see in more detail, this accounting law practically endorses an objectification of certain humans, those who are under the domination of capitalist subjects. Secondly, it obliges on the contrary to systematically conserve certain material things, mainly the money invested by the capitalist, but not only:

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great ability to overcome hazards and therefore the possibility of enormous enrichment in the medium or long term.

<sup>15</sup> Text reproduced by Afeissa (2007,31-49).

<sup>16</sup> This last point clearly refers to the ban on the sale of certain organs and, in some countries, suicide.

in fact certain modern capitalist accounts which aim at the maintenance of physical capital can ensure, for example, the conservation of machines.<sup>17</sup> We can then consider, in this regard, that these capitalists, no doubt in a more or less conscious manner, inaugurate, for the protection of their financial capital, a concept of intrinsic value, this insofar as they consider this type of capital as must be systematically conserved:<sup>18</sup> it is for them an end in itself because before being able to accumulate wealth, they must first conserve the capital they have invested, as Monsieur de la Palisse would say. It is traditional, when we talk about capitalism, to focus on its desire for accumulation, but we neglect the fundamental problem of conservation. In fact, the concrete realization of this conservation, especially if it must be a permanent one, is not at all obvious: it took the “brilliant” invention of the double entry accounting, dixit Goethe,<sup>19</sup> and of a certain concept of cost of conservation to put it into practice. We will show later that this cost of conservation, after certain corrections, corresponds well to the famous intrinsic value, the quest for the Grail of environmental ethicists. For the moment, let us be content to insist again on this accounting revolution which will continue and will eventually lead to the catastrophic ecological and human consequences that we are experiencing today. Before being characterized by relations of production, modern capitalism is first of all by relations of conservation which condition the relations of production. We can even see in this focus on issues of conservation and preservation a kind of “good use” of certain things on the part of the founders of modern capitalism.

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<sup>17</sup> When it comes to machines, capitalism does not hesitate to check, with the help of experts, whether their conservation is not endangered by abusive exploitation (problems of overheating, speeding, risk machinery breakdown, etc).

<sup>18</sup> This proves that, contrary to what Routley (1973,45) says, the concept of conservation is not necessarily the prerogative of environmental ethics: capitalist law is also a follower of conservation, which is moreover actually practiced. But obviously not of the conservation of the same things the Routleys are aiming for.

<sup>19</sup> Most accounting teachers know this astonishing sentence from Goethe which appears in his novel devoted to the suffering of young Werther: “double-entry accounting, one of the most beautiful inventions in the world” (Sic!).